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Understanding Hiking Participation and Benefits: Lessons Learned from the First Day Hikes Initiative

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UNDERSTANDING HIKING PARTICIPATION AND BENEFITS:
LESSONS LEARNED FROM THE FIRST DAY HIKES INITIATIVE

A Thesis
Presented to
the Graduate School of
Clemson University

In Partial Fulfillment
of the Requirements for the Degree
Master of Science
Parks, Recreation, and Tourism Management

by
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May 2017

Accepted by:
Dr. Jeffrey C. Hallo, Committee Chair
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Dr. William C. Norman

ABSTRACT

First Day Hikes, which occur on New Year's Day, are part of a nationwide initiative led by America's State Parks designed to get more people outdoors enjoying the physical, social, and environmental health benefits associated with nature-based recreation. In 2016, over 56,000 people across the US attended one of the nearly 1,200 First Day Hikes offered. Despite the popularity of the First Day Hike initiative, relatively little is known about the First Day Hikers themselves, their reasons for participating, or the broader impacts of this experience, as the program had never been formally evaluated. To address these gaps, our study synthesized data from 1,934 hikers using field surveys collected on January 1, 2016 and follow-up web surveys in three of the more popular First Day Hike states, Georgia, South Carolina, and Massachusetts. Post-hike feedback from participants (N=584 web surveys) was collected in June and July 2016 and highlighted positive and negative aspects of the hikes, assessed broader program impacts, and identified potential opportunities for improvement in future years. Data were analyzed using chi-squared tests, t-tests, and descriptive statistics to examine the following variables: demographic characteristics, motivations for participation, perceived benefits, and outdoor recreation participation changes. Hike participants tended to be white, highly educated, local residents with previous hiking experience. Approximately 34% of hiking groups included children. Recommendations included a targeted emphasis on marketing toward and recruiting specific subgroups such as first-time hikers, families with children, and racial/ethnic minorities. Top motivations for hiking were being outside, trying something new, and spending time with others.

Following the hike experience, top benefits reported by participants were exploring the natural world and exercising and improving physical health. Results from this study illustrate factors driving the overall success of the First Day Hikes initiative and show that this (and similar) park-based programs have the potential to affect outdoor recreation participation, foster connections between people and nature, and inspire future stewardship behavior.

DEDICATION

For Gus, my hiking buddy.

ACKNOWLEDGMENTS

Thank you to my family who fostered my love of nature from an early age. Our backyard garden, wildlife rescues, and summer camping trips to state parks, are some of my favorite memories and are experiences that transformed me into the person I am today. My parents have always inspired me with their optimism and have been unwavering in their support of my decisions to move to different regions of the U.S. – there is no one I would rather travel with across the country. Also, a thank you to my brother, Steve, who was in graduate school at the same time. It was comforting to always know I had someone I could vent to and share ideas with along the way.

Dr. Jeff Hallo for acting as my committee chair and allowing me to work on additional research projects throughout my time at Clemson. Drs. Betty Baldwin and Bill Norman for serving as a committee members and ensuring that I had the opportunity to graduate on time. Dr. Robert Bixler for encouraging me to pursue a career in the field of interpretation. Dr. Bixler's courses were some of the most interesting and relevant to my personal goals. I know that I will use the information and skills I learned throughout my career.

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CHAPTER ONE

INTRODUCTION AND LITERATURE REVIEW

Introduction

Over 80% of Americans live in urban areas where access to natural areas is limited (United States Census Bureau, 2010). In the United States, studies have shown that participation in nature-based recreation has been steadily declining for decades (Pergams & Zaradic, 2008). From a human health and development standpoint, these trends represent major concerns. An absence of authentic experiences in nature, often described as “nature-deficit disorder” (Louv, 2005), can negatively impact cognitive and emotional development (Kellert, 2005), physical and mental health (Maller, Townsend, Pryor, Brown, & St. Leger, 2006; Larson, Whiting, & Green, 2013), social interactions (Bedimo-Rung, Mowen, & Cohen, 2005), and environmental conservation (Zaradic & Pergams, 2007). Factors contributing to declines in human-nature interactions include the escalating presence of digital diversions (e.g., computers, video games; Rideout, Foehr, & Roberts, 2010), transportation issues, cost, and lack of free time (Shores, Scott, & Floyd, 2007). Innovative management strategies are needed to combat these constraints to outdoor recreation, foster positive interactions between humans and nature, and address consequences associated with nature-deficit disorder (Weiler, Moore, & Moyle, 2013).

One particularly promising strategy for connecting people and parks is the First Day Hike program, which emerged in Massachusetts 25 years ago. First Day Hikes are

part of a nationwide initiative lead by America’s State Parks to get more people outdoors enjoying the physical health, social, and environmental benefits associated with nature-based recreation. In 2012, when the National Association of State Park Directors (NASPD) began administering the program, all 50 state park systems held at least one First Day Hike for the first time (America's State Parks, 2012). By 2016, 1,169 separate hike offerings enabled 56,000 state park visitors to hike over 130,000 miles (“First Day Hikes Results”, 2016). What is fueling this success? Anecdotal reports from park managers suggest the events attract a number of first-time outdoor recreationists, many of whom have never experienced the unique opportunities that local state parks have to offer. Because the hikes are free, guided, and suitable for various ability levels, they create a fun social experience for both children and adults (First Day Hikes, 2016). The hikes also capitalize on the New Year’s resolution concept, encouraging participants to start the year off right by exercising, connecting with nature, and spending time with friends and family. However, aside from isolated stories and unsolicited feedback, very little is known about the factors driving First Day Hike participation. Even less is known about the hikes’ potential to influence future outdoor recreation behavior and the broader benefits and impacts that stem from these experiences. This study is designed to answer those questions.

Literature Review

Nature Deficit Disorder – Consequences for Parks and Public Health

Over the last twenty years, the amount of time children spend in nature has decreased substantially (Burdette & Whitaker, 2005; Kellert, 2005; Taylor & Kuo, 2006). In 1975, US citizens spent approximately 0.79 hours each week on nature recreation, but by 2003, this number had decreased to 0.48 hours per week (Siikamaki, 2011). Furthermore, a study of over 800 mothers in rural and urban areas found that 71% of these women played outdoors every day as children, but only 26% of their children play outdoors daily (Clements, 2004). In his book *Last Child in the Woods*, Louv coined the term “nature-deficit disorder” to describe children’s increasing disconnection from the outdoors and the health and developmental consequences associated with it (2005).

There are a wide variety of factors that may explain this overall decline. For example, technological advances such as smartphones and tablets directly compete with nature as avenues for leisure activities (Aguiar & Hurst, 2007; Charles, Louv, Bodner, & Guns, 2008). In 2009, the results of one study revealed that children ages 8-18 engaged in over seven hours of media time each day (e.g., watching TV, listening to music, using Internet/computer, playing video games), a considerable increase over previous years (Rideout, Foehr, & Roberts, 2010). These trends are concerning because a child will be deprived of the benefits gained from the outdoors and will not truly understand the natural world if it is experienced only through technology (Charles et al., 2008).

Another factor contributing to the increasing disconnect between people and nature is the highly scheduled and regimented leisure time of the modern family, which rarely allows

for unstructured play in natural settings. Even 15 years ago, one study found that children's discretionary time had been reduced by nine hours each week, a drop of approximately 16% since 1981 (Hofferth & Sandberg, 2001). These trends may be due to a number of factors including increasing pressure to complete homework and enhance academic performance, a rise in supervised care stemming from two-parent working families, and a growing number of parents who favor alternative activities, such as sports, which are often perceived as "safer" than child-led nature play because of their supervised and organized nature (Clements, 2004; Driessnack, 2009). However, research suggests that increased supervision and parental presence are negatively associated with children's park-based physical activity (Floyd et al. 2011), and may negatively impact other developmental outcomes (Barnett, 1990).

There is a great fear among researchers and practitioners that an absence of authentic and unstructured experiences in nature will negatively affect child development and will lead to adults who do not possess pro-environmental values or practice stewardship behavior (Kellert, 2005; Larson & Verma, 1999; Weiler, Moore, & Moyle, 2013; Zaradic & Pergams, 2007). Though children are having fewer nature experiences than children in previous generations, adults are participating in outdoor recreation even less than today's youth. In 2015, adults (ages 25 and up) participated in an average of 73.3 outdoor recreation outings (including activities such as running, fishing, bicycling, hiking, etc.), whereas the younger demographic participated in 108.4 outings (Outdoor Foundation, 2015). This lack of outdoor activity has significantly impacted the health and well-being of the US population (Bedimo-Rung, Mowen, & Cohen, 2005). As a result of

this need to improve health and well-being, there has been a surge in the movement to reconnect people, and especially children, with nature. According to the National Association of State Park Directors, park programs are often devoted to promoting outdoor recreation with the specific goal of helping to address obesity by providing and inspiring regular activity, especially in children (First Day Hikes, 2015; Seltenrich, 2015). In fact, nature-based recreation in parks has been shown to address a variety of physical, psychological, and socio-emotional health issues (Larson, Jennings, & Cloutier, 2016; Bedimo-Rung et al., 2005; Hartig, Mitchell, de Vries, & Frumkin, 2014).

The History of the First Day Hikes Initiative

Each year on January 1st, state parks around the country offer hikes of varying distance, difficulty levels, and durations at their sites. These hikes are part of a nationwide initiative to help people experience the diverse benefits provided by nature-based recreation. The hikes designed for both children and families, as well as adult participants, and are guided by state park staff and volunteers. The First Day Hike program emerged in Massachusetts in 1992 with one hike at Blue Hills Reservation. In 2012, when the National Association of State Park Directors (NASPD) began administering the program, all 50 state park systems held at least one First Day Hike for the first time (America's State Parks, 2012). By 2016, 1,169 separate hike offerings enabled 56,000 state park visitors to hike over 130,000 miles (“First Day Hikes,” 2016). The First Day Hike program experienced another increase in 2017, with over 1,300 hikes offered across the country and 62, 657 hikers (Figure 1.1).

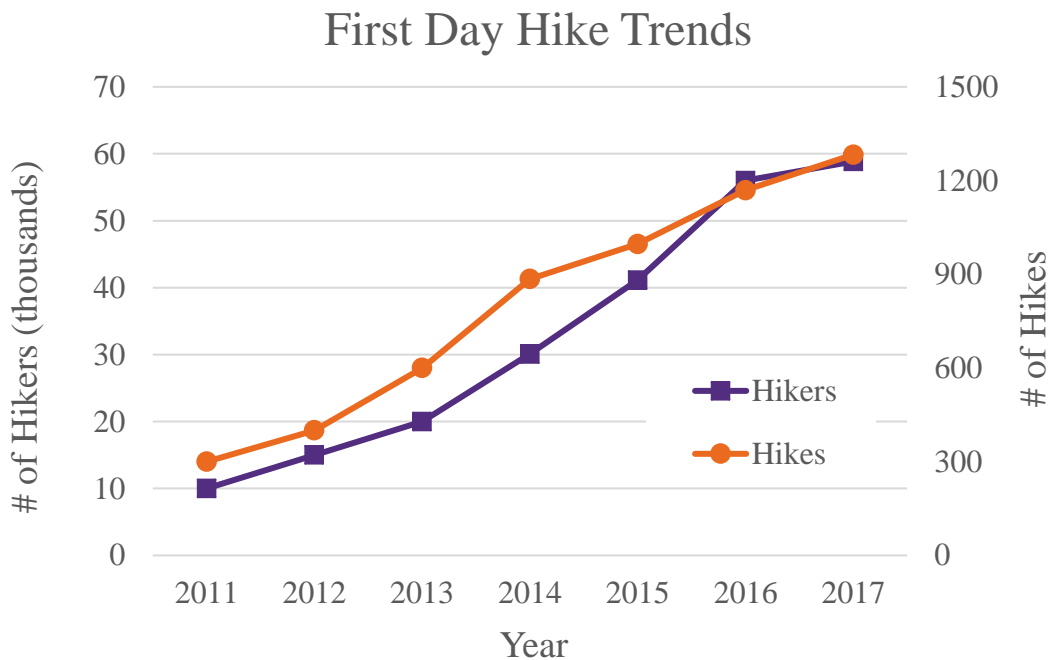


Figure 1.1: First Day Hike trends from 2011-2017: 2011-2013 are estimations obtained from state park staff, while 2014-2017 represent statistics collected by NASPD.

Part of First Day Hikes’ allure and popularity may be an artifact of where they are held. National Parks are perhaps the best known protected areas in the US, but the vast majority of US citizens experience nature at more local scales. For example, state parks represent a critically important potential outdoor recreation destination in the lives of most Americans (Karieva, 2008; Pergams & Zaradic, 2008). Each year, visitation to US state parks provides over 2 billion hours of nature recreation which equates to roughly 9.7 hours per person, or approximately 33% of all nature-based recreation (Siikamaki, 2011). State parks may be particularly important on local scales, for several assessments have

shown that 85-90% of state park visitors are in-state residents (Minnesota DNR, 2009; Texas PWD, 2009).

The popularity of the First Day Hike initiative may be derived from their accessibility to wide variety of diverse populations across the entire country and the multiple benefits that nature-based recreation provides. Anecdotal evidence suggests that First Day Hikes attract a number of first-time outdoor recreationists, many of whom have never experienced state parks before. These hikers seem to appreciate the opportunity to enjoy an active outdoor experience with family and friends during a season (winter) not typically associated with state park-based recreation. First Day Hikes may also lead to broader impacts on outdoor recreation participation, human health and well-being, and support for parks and natural resource conservation. However, most conjectures about the First Day Hike experience and its broader impacts are purely speculative. For all of the reasons, it is important for researchers and practitioners to understand who participates on these hikes, why, and what short and long-term impacts the hikes have on participants.

Motivations for Hiking

Why do people hike? There are many possible answers, yet relatively little research has explored this specific question. A study of hiking tourists in South Korea found that they were motivated by enjoying the natural environment, escaping from daily life, and improving their health and physical fitness (Kim, Lee, Uysal, Kim, & Ahn, 2015). This feeling of rejuvenation encouraged these same tourists to revisit the trails they had hiked previously. These hikers also were motivated by the opportunity to have

time to talk with family members and friends, and they considered relationships with others to be an important aspect of life (Kim et al., 2015). Another study of hikers, this time on the Appalachian Trail (AT), found that hikers were initially attracted to hike by being outdoors, the scenic beauty of the area, and interactions with other hikers, but they had underlying motives self-fulfillment, appreciation, health, peace, physical challenge, and self-esteem (Hill, Goldenberg, & Freidt, 2009). But casual day hikers, a group to which many First Day Hikers likely belong, might be fueled by different motivations than either hiking tourists or serious AT users.

Insights to the group might be gained by focusing on general outdoor recreationists, who often share many of the same motivations for participation in various nature-based activities. A study of state park visitors in Georgia found that the most popular motivations for visiting state parks were social interactions, followed by relaxation and restoration, and interactions with nature (Whiting, Larson, Green, & Kralowec, 2017). Adults also recognized that outdoor recreation with friends and family provides important benefits for youth, particularly in terms of social development (Larson, Whiting, & Green, 2013; Ginsburg, 2007). Multiple studies suggest that providing recreation opportunities that are social in nature and include alternative activities (i.e. food, campfires, etc.) could appeal to many different motivations, successfully attracting more diverse populations to the outdoors (Whiting et al., 2017; Cordell, 2008; Cordell, Betz, & Green 2008).

Participation in hiking, and First Day Hikes specifically, may also be motivated by the concept of novelty. Novelty, the newness or uniqueness of an experience, is a

comparison between present and past situations (Lee & Crompton, 1992). Therefore, what an individual perceives as novel is highly subjective. Throughout the years, novelty has been consistently ranked as a key motive driving people to travel (Crompton, 1979; Dann, 1981). The degree of novelty a person prefers is related to if they are a sensation-seeker (Lee & Crompton, 1992). High novelty seekers enjoy intense and varied experiences (Hamer & Copeland, 1998). They are not necessarily fond of risks, but they will take risks in order to have new experiences. In comparison, low novelty seekers prefer conventional experiences. They are comforted by the familiar, which involves no risk (Hamer & Copeland, 1998). First Day Hikes provide a unique opportunity for a novel recreation experience that may appeal to more diverse park visitors.

Not everyone is motivated to hike or attend an interpretive program for the same reasons. In many cases, these motivations are directly related to the benefits provided by the experience (Frauman, Norman, & Klenosky, 1998). Physical health and fitness have been found to be important motivations for adult outdoor recreation participation in state parks (Whiting et al., 2017). Parents and guardians also recognize that outdoor recreation can provide physical health benefits for children (Larson et al., 2013). Spending time outdoors promotes healthy lifestyles and encourages physical activity, making outdoor recreation an important tool in combating America's obesity epidemic (Cleland, Crawford, Baur, Hume, Timperio, & Salmon, 2008; Roemmich, Epstein, Raja, Yin, Robinson, Winiewicz, 2006; Sallis, Prochaska, & Taylor, 2000). Whiting et al. (2017), also found that physical health motivations may be influenced by income, with people in the lower income categories being less likely to visit state parks with health goals in mind

than higher-income groups. Persuading an individual to participate in a recreation experience will be more successful if it can be related directly to outcomes valued by the potential participant (Hill, Goldenberg, & Freidt, 2009; Klenosky, Frauman, Norman, & Gengler, 1998). One of the primary goals of the First Day Hike initiative is that participants will be inspired to continue visiting their local state parks throughout the year (America's State Parks, 2012). Therefore, efforts by recreation professionals to encourage regular hiking may be more successful if the programs occur in their local areas and address psychological benefits as well as physiological benefits for participants.

Constraints to Hiking

Although outdoor recreation provides an array of physical, psychological, and social benefits, many people are unable or unwilling to participate because of the various constraints that they face. The biggest constraint to nature-based recreation is time availability. Costs related to user or program fees has also been rated a significant factor constraining visitors, especially among those with incomes between \$35,000-49,999 (Crompton & Kim, 2004). Some other common constraints to outdoor recreation for participants are lack of information, distance to the recreation area, family commitments, expense, and a lack of companionship (Shores, Scott, & Floyd, 2007). A study conducted in South Carolina identified constraints preventing state park campers from attending interpretive programs at the sites they were visiting (Goodrich & Bixler, 2012). These constraints included: a need for unstructured time to relax, competition between programs

and other activities in the park, ease of access to program information, and daily schedule determined by stage of life (Goodrich & Bixler, 2012).

Leisure constraints tend to be more severe for people who are in non-dominant groups, such as ethnic and racial minorities and those with low socioeconomic status (Wilhelm-Stanis, Schneider, Chavez, & Shinew, 2009). Many studies have shown distinct ethnic and racial differences in leisure activity preferences and participation, particularly between African-Americans and Caucasians. In one study, African-Americans showed greater representation in leisure when it included sports or fitness, social activities, and non-outdoors activities, whereas Caucasians were more represented in nature-based recreation (Shinew, Floyd, & Parry, 2004). Another study found that African American and Asian visitors were generally less likely than other groups to be motivated to recreate outdoors because of nature and instead were motivated by social interactions and physical health benefits (Whiting, Larson, Green, & Kralowec, 2017). Participation in these activities may be due to individual or cultural preferences, or they may be a result of structural or intrapersonal constraints (Godbey, Crawford, & Shen, 2010; Shinew et al., 2004). In either case, there are individuals who manage to participate in outdoor recreation activities even though they may be in an extreme minority.

To be successful, outdoor recreation programs and opportunities need to maximize the aforementioned benefits while minimizing these constraints. This might require innovative approaches to nature recreation marketing and management. The First Day Hikes initiative developed by America's State Parks represents one such approach to bolstering interest in outdoor recreation. Each year on January 1, these hikes bring

thousands of people around the country to state parks and other areas to participate in nature-based recreation, helping them to overcome many constraints and generating a wide range of potential benefits.

Impacts and Benefits of Hiking

Physical Health Benefits and Impacts

Outdoor recreation activities, such as hiking, can provide numerous benefits for participants. Physical activity stemming from outdoor recreation can reduce the risk of heart disease, hypertension, diabetes, depression, and anxiety (Pate, Pratt, Blair, Haskell, Macera, & Bouchard, 1995). And opportunities for intergenerational physical activity may be even more important. Parental health has a large impact on the habits and behaviors of children. In one study, parental obesity more than doubled the chance of a child becoming an adult with obesity (Whitaker, Wright, Pepe, Seidel, & Dietz, 1997). Research has also shown that when children and young adults are physically active, they are more likely to be active adults (Conroy, Cook, Manson, Buring, & Lee, 2005; Telama, Yang, Viikari, Valimaki, Wanne, & Raitakari, 2005).

Because many Americans hold sedentary jobs and rely heavily on motorized transport, leisure-time physical activity serves an important role in maintaining physical and mental health (Bedimo-Rung et al., 2005; Maller, Townsend, Pryor, Brown, & St. Leger, 2006; Sallis, Prochaska & Taylor, 2000). The American College of Sports Medicine and the American Heart Association recommend that healthy adults between 18 and 65 should be engaging in moderate physical activity for at least 30 minutes five times

per week, but many adults (40% or more, depending on age) do not meet those recommendations (Haskell et al., 2007). Current rates of conditions such as hypertension, diabetes, and depression, many of which are linked to physical inactivity and obesity, are at near historic highs among both children and adults (Haskell, Lee, Pate, Powell, Blair, Franklin, Macera, Heath, Thompson, & Bauman, 2007; Krisberg, 2007). Though the causes of obesity are complex, the increase in childhood obesity is likely at least partially related to a decrease in outdoor recreation (Blanck, Allen, Bashir, Gordon, Goodman, Merriam, & Rutt, 2012). In the 1960s, childhood obesity was around 4%, but in 2004 it was close to 20% (Centers for Disease Control and Prevention, 2006). Approximately 60% of children between 5 and 10 who are obese have one or more risk factor for cardiovascular disease (Muntner, He, Cutler, Wildman, & Whelton, 2004).

While a lack of outdoor recreation does not necessarily cause obesity, children and adults are more physically active when they are outside (Blanck et al., 2012; Sallis et al., 2000). According to the National Association of State Park Directors, park programs are often devoted to promoting outdoor recreation with the specific goal of helping to address obesity, especially in children (First Day Hikes, 2015; Seltenrich, 2015). By capitalizing on the popular concept of New Year's resolutions, the popular First Day Hikes initiative encourages participants to start the year off right by exercising, connecting with nature, and spending time with friends and family. These hikes can also help participants realize a number the myriad of benefits associated with nature-based recreation.

Social and Psychological Benefits and Impacts

In addition to the physical health benefits of parks, there are also social benefits (Ginsburg, 2007). Parks in general can provide opportunities for social interaction and promote community pride (Bedimo-Rung et al., 2005). Research has shown that parents and guardians especially value communal recreation experiences such as those with family and friends in outdoor environments (Larson, Whiting, & Green, 2013). Multiple studies have demonstrated that family participation in outdoor recreation programs is positively correlated with strong, successful families (Freeman & Zabriskie, 2002).

Parks can also provide visitors a variety of psychological benefits (Burdette & Whitaker, 2005; Taylor, Kuo, & Sullivan, 2001). After visiting parks, adults reported lower levels of stress that were negatively correlated with the length of time that they spent in the natural setting (Bedimo-Rung et al., 2005). Hiking specifically has been shown to promote feelings of peace and relaxation, while also benefiting participants overall health (Hill, Goldenberg, & Freidt, 2009). Nature experiences have also been shown to improve children's attention spans, problem-solving, and their creativity, all while reducing their stress (Burdette & Whitaker, 2005; Wells, 2003). When children interact with nature, they discover their strengths and build the intellectual constructs essential for development and life-long learning (Louv, 2008).

Support for Parks and Future Recreation Participation

People are more likely to support and invest in what they know firsthand, making the types of nature recreation that people are exposed to particularly important. Studies suggest that hiking, specifically, benefits recreationists by promoting a healthy lifestyle,

meeting likeminded individuals, and supporting environmental values (Hill, Gómez, Goldenberg, Freidt, Fellows, & Hill, 2014). People's attitudes about the environment typically have not been found to be supported by their behaviors, but participation in certain types of recreation, such as hiking and nature viewing, tends to be more tightly correlated with support for conservation than other types of recreation (Tarrant & Green, 1999; Zaradic, Pergams, & Kareiva, 2009). Similar relationships have been observed between wildlife-dependent, nature-based recreation activities and conservation behavior (Cooper, Larson, Dayer, Stedman, & Decker, 2015). Recreation at state parks can encourage both youth and adults to interact with nature and become more effective environmental advocates (Pergams & Zaradic, 2008). Furthermore, when nature experiences are personal, relevant, and direct, they are more effective in producing pro-environmental attitudes and stewardship behaviors than indirect non-personal experiences such as television-based nature programming (Tarrant & Green, 1999).

While hiking may lead to environmental values and stewardship behaviors, it is unclear whether hiking leads to other nature-based recreation. In one study of hiking tourists, they found that feelings of relaxation and rejuvenation encouraged hikers to revisit the trails they had hiked previously (Kim et al., 2015). Feelings of awe can also inspire recreationists to return back to nature (Agate, 2010). There has been many research studies on predicting recreation behavior, but most of these have focused on psychological models and variables, and have not considered the role of past recreation participation and activities that might serve as "gateways" to others (Smith & Moore, 2012; Young & Kent, 1985; Hrubes, Ajzen, & Daigle, 2010; Smith, Siderelis, & Moore,

2010). This has guided one of our research questions of this study to determine the effect of day hiking on future recreation participation. To promote these positive outcomes and inspire future recreation participation, it is important to create a positive hiking experience.

Creating a Positive Hiking Experience

First Day Hikes are guided by state park staff and volunteers who, during the program, act as interpreters. The National Association for Interpretation defines interpretation as “a mission-based communication process that forges emotional and intellectual connections between the interests of the audience and the meanings inherent in the resource” (“What is Interpretation,” 2017). Freeman Tilden defined six principles of interpretation in his 1957 book *Interpreting Our Heritage*, these ideas were modernized with the TORE model – interpretation should be Thematic, Organized, Relevant, and Enjoyable (Ham, 2013). Guided programs following this model offer participants an experience that is personally meaningful and designed with their interests in mind. In the case of First Day Hikes, finding out what motivations are driving participation gives a clearer picture of what type of interpretive experience the audience would enjoy.

While it is imperative to have a plan set in place for a program, there are likely to be unexpected events and teachable moments along the way. These are oftentimes peak or fascinating experiences for visitors and one of the reasons they decided to hike in the first place (Lynn & Brown, 2003). No interpreter can outshine a herd of elk grazing or a

bald eagle fishing (and nor should they try to). These unexpected and restorative moments will be what visitors remember and share with their family and friends (Kaplan, Kaplan, & Ryan, 1998). To what extent do First Day Hikes adhere to these interpretive practices that foster participant satisfaction? This should also be considered when evaluating the successful and unsuccessful aspects of the First Day Hike experience.

Research Questions

Considering the limited body of literature focused on hiking and all of the potential benefits and persistent challenges outlined above, the purpose of this study was to evaluate the First Day Hike program and determine the motivations driving participation and the perceived benefits associated hiking. The following are the guiding research questions for this study:

- Who attends First Day Hikes?
- What motivates people to attend a First Day Hike?
- What aspects of the program are successful and what aspects can be improved?
- How do participants perceive hiking-related benefits?
- To what extent do the hikes serve as “gateways” to future nature-based recreation participation?
- What are the larger conservation-related implications of the First Day Hike experience?

Thesis Format

This thesis is written in manuscript format. Chapter 1 introduces the study, summarizes past research on nature deficit disorder, the First Day Hikes initiative, hiking motivations, constraints, and impacts, and factors that create a positive hiking experience. This chapter also presents the general research objectives that guided the study. Chapters 2 and 3 are manuscripts that will be submitted for publication. Although recommendations and management implications are incorporated throughout the manuscript-style chapters, Chapter 4 provides a concise summary and recommendations based on results of the overall project. Chapter titles are listed below:

- Chapter 1 – Introduction and Literature Review
- Chapter 2 – Who are the ‘First Day Hikers’?: Factors Influencing Participation in the Popular First Day Hikes Initiative
- Chapter 3 – First Day Hikes: Impacts and Implications for the Future
- Chapter 4 – Summary and Management Implications

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CHAPTER TWO

WHO ARE THE FIRST DAY HIKERS?: FACTORS INFLUENCING PARTICIPATION IN THE POPULAR FIRST DAY HIKES INITIATIVE

Abstract

Day hiking is consistently ranked as one of the most popular recreation activities in the United States. This popularity is exemplified through the success of the First Day Hikes initiative, a nationwide program lead by America's State Parks to get more people outdoors enjoying the physical, social, and environmental health benefits associated with nature-based recreation. Despite the widespread popularity of hiking and the specific First Day Hikes program, little is known about hikers and their reasons for participating. In this study, we sought to discover (1) who attends First Day Hikes and what types of hikes to they prefer?, (2) what motivates people to attend a First Day Hike?, and (3) how participants perceive hiking-related benefits after their hiking experience? Data were collected from 1,934 hikers across the three states in two phases (on-site intercept surveys and follow-up web surveys). Results revealed that the majority of the First Day Hike participants tended to be white, highly educated, local residents with previous hiking experience. Approximately 34% of hiking groups included children. Top motivations for hiking were being outside, trying something new, and spending time with others. Following the hike experience, top benefits reported by participants were exploring the natural world and exercising and improving physical health. Benefits and motivations varied slightly by hiking subgroup (e.g., first time hikers, racial/ethnic minorities, groups

with children). Future research could expand on these motivations and also examine potential barriers and constraints to hiking participation, especially among new hikers and racial and ethnic minorities.

Introduction

Day hiking is consistently ranked as one of the most popular recreation activities in the United States, and it is an activity that continues to grow (Outdoor Foundation, 2016). The popularity of hiking is exemplified through the success of the First Day Hikes initiative, a nationwide program lead by America's State Parks to get more people outdoors enjoying the physical health, social, and environmental benefits associated with nature-based recreation. Each year on January 1st, state parks around the country offer hikes of varying distance, difficulty levels, and durations at their sites. These hikes are designed for both children and families, as well as adult participants, and are guided by state park staff and volunteers. In 2016, 1,169 separate hike offerings enabled 56,000 state park visitors to hike over 130,000 miles (First Day Hikes Results, 2016). Because the hikes are free, guided, and suitable for various ability levels, they create a fun social experience for both children and adults. The hikes also capitalize on the New Year's resolution concept, encouraging participants to start the year off right by exercising, connecting with nature, and spending time with friends and family. However, aside from isolated stories and unsolicited feedback, very little is known about the motivations driving First Day Hike participation.

Reasons People Hike

Why do people hike? There are many possible answers, yet relatively little research has explored this specific question. It is clear, however, that people are motivated to hike for a variety of different reasons. A study in South Korea found that hiking tourists were motivated by enjoying the natural environment, escaping from daily life, and improving their health and physical fitness (Kim, Lee, Uysal, Kim, & Ahn, 2015). This feeling of rejuvenation encouraged these same tourists to revisit the trails they had hiked previously. These hikers also were motivated by the opportunity to have time to talk with family members and friends, and they considered relationships with others to be an important aspect of life (Kim et al., 2015). Another study of hikers, this time on the Appalachian Trail (AT), found that hikers were initially attracted to hike by being outdoors, the scenic beauty of the area, and interactions with other hikers, but they had underlying motives based on self-fulfillment, appreciation, health, peace, physical challenge, and self-esteem (Hill, Goldenberg, & Freidt, 2009). Casual day hikers, however, might be fueled by different motivations than either hiking tourists or serious AT users.

Insights to this group of hikers might be gained by focusing on general outdoor recreationists, whose motivations and preferences for various nature-based recreation activities are rather well documented (Manfredo, Driver, & Tarrant, 1996). A study of state park visitors in Georgia found that the most popular motivations for visiting state parks were social interactions, followed by relaxation and restoration, interactions with nature, and physical fitness and health (Whiting, Larson, Green, & Kralowec, 2017).

Adults also recognize that outdoor recreation with friends and family provides important benefits for youth, particularly in terms of social development (Larson, Whiting, & Green, 2013; Ginsburg, 2007). Multiple studies suggest that providing recreation opportunities that are social in nature and include alternative activities (e.g., food, campfires) could appeal to many different motivations, successfully attracting more diverse populations to the outdoors (Whiting et al., 2017; Cordell, 2008; Cordell, Betz, & Green 2008). Similar motivations and preferences may influence First Day Hikers.

Participation in First Day Hikes might also be motivated by the concept of novelty. Novelty, the newness or uniqueness of an experience, is a comparison between present and past situations (Lee & Crompton, 1992). Therefore, what an individual perceives as novel is highly subjective. Throughout the years, novelty has been consistently ranked as a key motive driving people to travel (Crompton, 1979; Dann, 1981). The degree of novelty a person prefers is related to if they are a sensation-seeker (Lee & Crompton, 1992). High novelty seekers enjoy intense and varied experiences (Hamer & Copeland, 1998). They are not necessarily fond of risks, but they will take risks in order to have new experiences. In comparison, low novelty seekers prefer conventional experiences. They are comforted by the familiar, which involves no risk (Hamer & Copeland, 1998). First Day Hikes provide a unique opportunity for a novel recreation experience that may appeal to more diverse park visitors.

Physical health and fitness have been found to be important motivations for adult outdoor recreation participation in state parks (Larson, Whiting, Green, & Bowker 2014; Mowen, Trauntvein, Graefe, & Son 2012), particularly when the nature-based exercise

involves other types of social interactions. Parents and guardians recognize that outdoor recreation can provide physical health benefits for children (Larson et al., 2013).

Spending time outdoors promotes healthy lifestyles and encourages physical activity, making outdoor recreation an important tool in combating America's obesity epidemic (Cleland, Crawford, Baur, Hume, Timperio, & Salmon, 2008; Roemmich, Epstein, Raja, Yin, Robinson, Winiewicz, 2006; Sallis, Prochaska, & Taylor, 2000). Whiting et al. (2017), also found that physical health motivations may be influenced by income, with people in the lower income categories being less likely to visit state parks with health goals in mind than higher-income groups. Persuading an individual to participate in a recreation experience will be more successful if it can be related directly to outcomes valued by the potential participant (Hill, Goldenberg, & Freidt, 2009; Manfredo et al., 1996). This is key considering that one of the primary goals of the First Day Hike initiative is to inspire participants to continue visiting their local state parks throughout the year (America's State Parks, 2012). Therefore, efforts by recreation professionals to encourage hiking may be more successful if the programs address a combination of potential benefits that appeal to a diverse array of participants.

Hiking-Related Benefits

Nature-based recreation in parks, often manifested in the form of hiking, has been shown to provide a variety of physical, psychological, and social health benefits (Larson, Jennings, & Cloutier, 2016; Hartig, Mitchell, de Vries, & Frumkin, 2014; Bedimo-Rung et al., 2005). Hiking promotes physical activity, which can reduce the risk of heart

disease, hypertension, diabetes, depression, and anxiety (Pate, Pratt, Blair, Haskell, Macera, & Bouchard, 1995). Opportunities for intergenerational physical activity may be even more important. Parental health has a large impact on the habits and behaviors of children. In one study, parental obesity more than doubled the chance of a child becoming an adult with obesity (Whitaker, Wright, Pepe, Seidel, & Dietz, 1997). Research has also shown that when children and young adults are physically active, they are more likely to be active adults (Conroy, Cook, Manson, Buring, & Lee, 2005; Telama, Yang, Viikari, Valimaki, Wanne, & Raitakari, 2005).

Hiking and spending time in green spaces can also provide visitors a variety of psychological benefits (Bratman, Hamilton, & Daily, 2012; Burdette & Whitaker, 2005; Taylor, Kuo, & Sullivan, 2001). After visiting parks, adults reported lower levels of stress that were negatively correlated with the length of time that they spent in the natural setting (Bedimo-Rung et al., 2005). Hiking, specifically, has been shown to promote feelings of peace and relaxation, while also benefiting participants overall health (Hill, Goldenberg, & Freidt, 2009). Nature experiences have also been shown to improve children's attention spans, problem-solving, and their creativity, all while reducing their stress (Burdette & Whitaker, 2005; Wells, 2003). When children interact with nature, they discover their strengths and build the intellectual constructs essential for development and life-long learning (Louv, 2008). Studies suggest that hiking benefits recreationists by promoting a healthy lifestyle (Hill, Gómez, Goldenberg, Freidt, Fellows, & Hill, 2014).

In addition to the physical and psychological health benefits of hiking, there are also potential social benefits (Ginsburg, 2007). Parks generally provide opportunities for hiking that facilitates social interaction, meeting likeminded individuals, and promotes community pride (Hill et al., 2014; Bedimo-Rung et al., 2005). Multiple studies have demonstrated that family participation in outdoor recreation programs is positively correlated with strong, successful families (Freeman & Zabriskie, 2002).

Hiking also has the potential to counteract the negative consequences of nature-deficit disorder (Louv, 2005), which highlights children's increasing disconnection from the outdoors and the health and developmental consequences associated with it. Over 80% of Americans live in urban areas where access to natural areas is limited (United States Census Bureau, 2010). In the United States, studies have shown that participation in nature-based recreation has been steadily declining for decades (Pergams & Zaradic, 2008). There are a wide variety of factors that may explain this overall decline. For example, technological advances such as smartphones and tablets directly compete with nature as avenues for leisure activities (Aguiar & Hurst, 2007; Charles, Louv, Bodner, & Guns, 2008).

Another factor contributing to the increasing disconnect between people and nature is the highly scheduled and regimented leisure time of the modern family, which rarely allows for unstructured play in natural settings (Hofferth, 2009; Skar & Krogh, 2009). This lack of outdoor activity not only negatively impacted the health and well-being of many Americans (Bedimo-Rung, Mowen, & Cohen, 2005; Hartig et al. 2014), but it also created a lack of environmental values and stewardship behaviors within the

U.S. population. Hiking specifically has been shown to support environmental values (Hill et al., 2014). As a result of this need to improve public and environmental health and well-being, there has been a surge in the movement to reconnect people, and especially children, with nature. According to the National Association of State Park Directors, many park programs are now devoted to promoting outdoor recreation with the specific goal of helping to connect people and nature and ensure a sustainable, healthy quality of life for generations to come (First Day Hikes, 2015; Seltenrich, 2015).

Constraints to Hiking

Although outdoor recreation provides an array of physical, psychological, and social benefits, many people are unable or unwilling to participate due to various constraints. The biggest constraint to nature-based recreation is time availability (Crompton & Kim, 2004). Costs related to user or program fees has also been rated a significant factor constraining visitors, especially among those with incomes between \$35,000-49,999 (Crompton & Kim, 2004). Some other common constraints to outdoor recreation for participants are lack of information, distance to the recreation area, family commitments, expense, and a lack of companionship (Shores, Scott, & Floyd, 2007). A study conducted in South Carolina identified constraints preventing state park campers from attending interpretive programs at the sites they were visiting (Goodrich & Bixler, 2012). These constraints included: a need for unstructured time to relax, competition between programs and other activities in the park, ease of access to program information, and daily schedule determined by stage of life.

Leisure constraints tend to be more severe for people who are in non-dominant groups, such as ethnic and racial minorities and those with low socioeconomic status (Wilhelm-Stanis, Schneider, Chavez, & Shiness, 2009). Many studies have shown distinct ethnic and racial differences in leisure activity preferences and participation, particularly between African-Americans and Caucasians. In one study, African-Americans showed greater representation in leisure when it included sports or fitness, social activities, and non-outdoors activities, whereas Caucasians were more represented in nature-based recreation (Shiness, Floyd, & Parry, 2004). Another study found that African American and Asian visitors were generally less likely than other groups to be motivated to recreate outdoors because of nature, and instead were motivated by social interactions and physical health benefits (Whiting, Larson, Green, & Kralowec, 2017). Participation in these activities may be due to individual or cultural preferences, or they may be a result of structural or intrapersonal constraints (Godbey, Crawford, & Shen, 2010; Shiness et al., 2004). In either case, there are still individuals who manage to participate in outdoor recreation activities even though they may be in an extreme minority.

To be successful, outdoor recreation programs and opportunities need to maximize the aforementioned benefits while minimizing these constraints. This might require innovative approaches to nature-based recreation marketing and management. The First Day Hikes initiative developed by America's State Parks represents one such approach. Each year on January 1, these hikes bring thousands of people around the

country to state parks and other areas to participate in nature-based recreation, helping them to overcome many constraints and generating a wide range of potential benefits.

Research Objectives

Despite the widespread popularity of hiking (Outdoor Foundation, 2016), few studies have examined hikers or hiking. Most studies that do focus on serious hikers (for example, Appalachian Trail hikers), international tourists (Kim et al., 2015; Hill et al, 2009), night hikers (Beeco, Hallo, Baldwin, & McGuire, 2011), or hiking impacts (Pickering, Hill, Newsome, & Leung, 2010; Cole, 2004; Lynn & Brown, 2003). There is a need to know more about casual day hikers, a group that accounts for the majority of hiking-related outdoor recreation yet has been under studied. Our investigation therefore sought to explore hiking motivations and benefits through the lens of the First Day Hike initiative, focusing on the following research questions: (1) who attends First Day Hikes and what types of hikes to they prefer?, (2) what motivates people to attend a First Day Hike?, and (3) how do participants perceive hiking-related benefits after their hiking experience? By enhancing understanding of the input and outputs of a day hiking experience, this study could help to inform the planning and implementation of future programs that have the potential to connect people and nature and improve public health and well-being across diverse populations.

Methods

Study Sites

Although First Day Hikes occur in every state, this study focused on three state park systems that are among the most popular First Day Hike destinations: Georgia (managed by the State Parks and Historic Sites Division of the GA Department of Natural Resources), Massachusetts (managed by the MA Department of Conservation and Recreation), and South Carolina (managed by SC State Parks within the SC Department of Parks, Recreation and Tourism). Massachusetts was selected because it was the birthplace of the First Day Hike initiative in 1992. Georgia and South Carolina were chosen because of their location in a different geographical region of the United States and their proximity to the research base at Clemson University. All three states were among the top 10 states in the country in terms of total number of first day hikers in 2016. We focused our sampling efforts on participants at hikes in 41, 11, and 38 state parks or historic sites in Georgia, Massachusetts, and South Carolina, respectively. Data were collected in two phases. Phase one took place on January 1, 2016, just before participants went on their First Day Hike. Phase two occurred during June and July 2016, approximately six months after the hikes.

Field Survey

In the first phase of the research, we conducted an intercept survey of all adult First Day Hike participants in the three participating states. We worked with agency directors and staff to construct a list of questions to help develop a profile of the First Day Hiker population. This brainstorming effort revealed multiple variables of interest ranging from demographic information and hike characteristics to potential motivations of participants. We then designed a brief questionnaire in index card format (Appendix A) and distributed these questionnaires to the respective state coordinators. State coordinators shipped the cards to the various hike leaders at parks across the state, along with implementation instructions (Appendix B). On the day of the hike (January 1, 2016), hike leaders asked all adult participants (age 18+) to complete a pre-hike questionnaire and submit it before starting down the trail. The cards took approximately 2 minutes to complete.

The first question we asked respondents was “Which of the following firsts apply to you today? (Check ALL that apply.)” followed by options of first time in THIS park, first time in any state park, first time hiking, and first time on a First Day Hike (Appendix A). This question was designed to differentiate participants’ experience levels and their previous state park use. Respondents were also asked to indicate the year they were born, their gender, and their race/ethnicity. To determine how many local residents (living within 30 miles of the park), in-state visitors, and out-of-state visitors attended the First Day Hikes, survey respondents were asked to provide their home ZIP code to estimate distance traveled from their point of origin.

To learn about who was hiking with whom, we asked respondents two questions. The first was “What best describes the group you are with today? Check ONE.” Response options included just me, family, friends, family and friends, or other (with a blank for an open-ended response). The second question was “How many adults and children are in your group today?” Participants had an opportunity to write in both the number of adults (age 18 and older) in the group and the number of children (under age 18).

Finally, First Day Hike participants also answered an open-ended question on the field survey: “Why did you choose to go on this First Day Hike?” All responses were read and coded based on dominant themes present, resulting in ten distinct categories of responses. Participant responses could fall into just one category or, if multiple motivations for hiking were acknowledged, multiple categories.

Hike Information

After the hike, hike leaders completed a short form (Appendix C) with additional information about the hike that they led. We asked leaders to provide information about the park, the hike’s location within the park, distance (approximate hike length), weather (temperature and conditions), and number of adult and youth participants. Hike leaders were also asked “What was the advertised difficulty of the hike? (Check ONE.)” followed by options to select easy, moderate, or strenuous. At the end of the form there was a blank space for additional comments about the hike or hikers.

Once all of the information from First Day Hikers was collected on January 1, hike leaders sent a packet that included the participant responses and hike information sheets back to the state coordinators. Coordinators assembled cards from all parks across the state, then sent them back to the Clemson-based research team for data entry and analysis. Across the three states, 1,934 surveys were collected on January 1, 2016. Based on estimates of total hike numbers reported by hike leaders, this equated to a 49.7% response rate.

Follow-up Survey

Although Phase 1 data collection yielded basic information about who was attending these hikes and why, questions remained about the hikes' broader impacts. In Phase 2, we contacted a subset of the First Day Hike Field Survey participants via email (email addresses were provided by almost 70% of participants on the pre-hike questionnaire). A check for non-response bias was conducted to ensure that hikers who provided their email address for the web survey were similar to those who did not. Using a web survey (Appendix D), we attempted to develop a more comprehensive understanding of benefits associated with First Day Hikes.

In addition to the demographic questions asked on the field the survey, the follow-up survey asked respondents to indicate the highest level of education they had completed. To determine what benefits participants felt they gained from their experience, we asked them the following: "Please state whether you DISAGREE or AGREE with the following statements about potential benefits associated with First Day

Hikes. (Select one response for each item.)” There were ten statements based on the answers participants provided on the field survey including *exercise and improve my physical health, spend time with family, and accomplish a New Year’s resolution.*

Responses were rated on a five point scale from strongly disagree to strongly agree.

Although questions about the benefits associated with recreational experiences are often asked during or just following the experience, we decided to wait for approximately 6 months to minimize bias associated with immediate reporting, allowing more time for impacts to be evaluated.

The web survey was distributed using a multiple-mailing approach via Qualtrics in June and July 2016. Following completion, both the field and web survey data for individual participants were integrated to generate a more complete response profile for each First Day Hiker. Overall, 1,137 participants provided a valid email address on the field survey, enabling us to follow up with them later in June and July 2016. During that second phase of data collection, 584 web surveys were collected with a 51.4% response rate.

Data Analysis

Data (field surveys, hike information sheets, and web-based follow-up surveys), were analyzed to examine factors associated with the primary variables of interest: demographic attributes, hike attributes, hiking motivations, and perceived benefits associated with hikes. Certain variables required additional coding. To calculate distance traveled to participate in a First Day Hike, measurements were taken from the center of

the home ZIP code to the center of the park ZIP code.

On the open-ended responses to the hiking motivation question, constant comparison and open coding were used to group responses by dominant themes present into ten distinct categories (Creswell, 2013; Maxwell, 2013; Henderson, 1991). Participant responses could fall into just one category or, if multiple motivations for hiking were acknowledged, multiple categories. For example, a participant wrote “it is close to us and we hadn't been here before.” This motivation would be coded as *hike appeal (location, time, and distance)* and as *trying something new*. Another respondent said, “good way to start the New Year, exercise, appreciate the outdoors.” This would be coded as *New Year's Day*, *exercising and improving health*, and *being outside*. The validity of this coding procedure was assessed by state park employees and managers who received a project report containing responses and had the opportunity to see if these responses aligned with their perspectives of the experience (Miles, Huberman, & Saldaña, 2014).

Our analysis of key outcome variables includes basic descriptive statistics associated with each variable to create a profile of hikers and their motivations and perceived benefits. It also includes comparisons between key groups of interest (e.g., first-time hikers, racial/ethnic minorities, groups with youth) using chi-squared tests (categorical response data) and independent samples t-tests (continuous response data). When multiple comparisons occurred, Holm-Bonferroni corrections were used to adjust family-wise error rates (and corresponding p-values) to avoid inaccurate interpretations of test results (Holm, 1979).

Results

Hike Information

We sampled a total of 114 First Day Hikes: 55 in Georgia, 14 in Massachusetts, and 45 in South Carolina. The average distance hiked was 2.1 miles (median 2.0), and the average hike duration was 1.6 hours (median 1.5). The majority of hikes (65.5%) were classified as “easy” by hike leaders, followed by “moderate” (30.9%), and “strenuous” (3.6%). The average number of people on each hike was 31 in Georgia (median 26), 121 in Massachusetts (median 108), and 24 in South Carolina (median 19). Group size ranged from 2 participants to over 300 participants on the most crowded hikes.

Demographic Distribution of Participants

The majority of participants (60.1%) were participating in their first First Day Hike, and many (36.1%) were visiting a park they had never visited previously. For 4.1% of participants, this represented their first hiking experience of any kind. The average age of participants was 51.8 years old with an age range of 18-91 years old and just over half (52.9%) were female. It should be noted that the reported proportion of male hikers (29.3%) was much lower than expected and the proportion with “unspecified” gender was much higher. This may be an artifact of reporting bias (with females more likely to respond to surveys and males are more likely to skip the gender question) rather than any substantive difference in the composition of hikers.

The majority of First Day Hikers were White/Caucasian (84.9%), followed by Black/African American (3.5%), Asian (2.4%) and Hispanic/Latino (1.7%). Participants

were highly educated, with the majority (76.7%) having a college degree or advanced degree. There was minimal or no difference between the average hike distance and duration selected by various subgroups of hikers compared to the entire group of hikers (Table 2.1). There was no significant difference in hike selection between first time hikers or hikers with children and all first day hikers. Racial and ethnic minorities were significantly less likely to select a “strenuous” or “easy” hike, but were significantly more likely to choose a “moderate” hike [$X^2(2, N = 154) = 27.17, p < .001$].

Table 2.1: First Day Hike Selection for Various Subgroups of Hikers

	All hikers (n=1820)	First Time Hikers (n=78)	Racial/ethnic minorities (n=154)	Hikers with children (n=574)
Average Hike Distance (miles)	2.1	2.1	2.0	2.0
Average Hike Duration (hours)	1.6	1.6	1.6	1.6
% easy hikes	67.7	65.8	49.7*	67.4
% moderate hikes	31.4	32.9	50.3*	31.7
% strenuous hikes	0.9	1.3	0.0*	0.9

* Indicates a significant difference between subgroup and other hikers based on a chi-squared test or independent samples t-test at $\alpha = 0.05$.

Group Composition

Almost half of the participants (48.9%) were hiking with their family and many were hiking with friends (15.7%) or a combination of both (14.7%). About 13.2% of hikers were solo hikers. Personal hiking groups typically had 1 (20.7%) or 2 (49.1%) adults present, and 66% of groups had no children. Groups that did include children

tended to have only 1 or 2 youth present. The average personal group size for hikers across all states was 3.6 people, with an average of 0.8 children per group.

Distance from Home ZIP Code to First Day Hike Site

The average distance traveled to the state parks for First Day Hikes was 75.1 miles, with a median distance traveled of 25.2 miles. Georgia and South Carolina had many more visitors from out-of-state, likely people visiting family and friends for the holidays, which increased these distance estimates substantially (Table 2.2). Almost 60% of the First Day Hike participants lived within 30 miles of the state park they visited, and this number rose to 79% in Massachusetts. First time hikers tended to travel shorter distances and were significantly more likely to be from the same ZIP code as the state park they visited [$X^2 (1, N = 70) = 7.04, p = .008$] (Table 2.2.). Hikers with children tended to travel farther and were significantly less likely to live within 30 miles of the state park they visited for their First Day Hike [$X^2 (1, N = 598) = 8.57, p = .003$].

Table 2.2: Distance Traveled to First Day Hike by Various Subgroups of Hikers

	All hikers (n=1790)	First Time Hikers (n=70)	Racial/ethnic minorities (n=164)	Hikers with children (n=598)
Average distance traveled (miles)	75.1	69.1	74.2	72.8
Median distance traveled (miles)	25.2	17.1	22.3	28.9
% from same ZIP code as state park	11.5	21.4*	9.8	9.9
% within 30 miles of state park	58.3	67.1	64.6	53.7*

*Indicates a significant difference between subgroup and other hikers based on an independent samples t-test or chi-squared test at $\alpha = 0.05$.

Motivations

Each First Day Hike was unique, so they attracted diverse visitors with many different motivations. The hiking motivation reported by the largest number of respondents (27.1%) was *being outside*, and included responses such as “get out of the house and explore nature, fresh air.” The second most popular motivation (22.8%) was *trying something new*, and included responses such as “to try something different.” The third most frequently mentioned motivation (19.0%) was *New Year’s Day*, and included responses such as “it’s a wonderful way to start the year!” *Spending time with others* was also an important motivator for participants, with 14.3% mentioning their family and 8.1% mentioning their friends, for a combined total of 22.4%. Other types of motivations

noted by hikers included *exercising and improving physical health* and continuing a yearly *tradition* (Table 2.3).

First time hikers were significantly more likely to be motivated by trying something new [$X^2(1, N = 68) = 9.61, p = .002$] and exercising and improving their health [$X^2(1, N = 68) = 8.18, p = .004$]. Racial and ethnic minorities were significantly less likely to list learning as their motivation for attending a First Day Hike [$X^2(1, N = 155) = 3.90, p = .048$], but were significantly more likely to be motivated by New Year's Day [$X^2(1, N = 155) = 4.23, p = .040$] and improving their physical health [$X^2(1, N = 155) = 5.18, p = .023$]. As one might expect, hikers with children were significantly more likely to be motivated to participate in order to spend time with family [$X^2(1, N = 571) = 208.37, p < .001$]. Hikers with children were also less likely to be motivated by New Year's Day [$X^2(1, N = 571) = 9.11, p = .003$], learning [$X^2(1, N = 571) = 5.31, p = .021$] and exercising, than other hikers [$X^2(1, N = 571) = 8.95, p = .003$].

Table 2.3: Motivations of First Day Hikers

	Example	All hikers % (n=1787)	First Time Hikers % (n=68)	Racial/ethnic minorities % (n=155)	Hikers with children % (n=571)
Being Outside	<i>“get out of the house and explore nature, fresh air.”</i>	27.1	23.5	22.6	25.4
Trying something new	<i>“to try something different.”</i>	22.8	36.2*	28.4	23.5
New Year’s Day	<i>“it’s a wonderful way to start the year!”</i>	19.0	16.2	24.5*	14.9*
Hike Appeal (Location, time, distance)	<i>“close to our new home”</i>	18.2	11.8	15.5	20.3
Learning	<i>“the hike was a ranger-led hike to talk about the history, flora, and fauna”</i>	15.1	14.7	9.7*	12.3*
Exercising and improving health	<i>“needed some exercise after too much eating and watching football”</i>	14.5	26.5*	18.7*	10.9*
Spending time with family	<i>“great activity with the family.”</i>	14.3	13.2	18.1	31.7*
Miscellaneous	<i>“fulfill an item on my bucket list - polar plunge”</i>	9.0	2.9	5.8	8.1
Spending time with friends	<i>“visiting my friends”</i>	8.1	4.4	11.0	7.4
Tradition	<i>“have done it for 20 years”</i>	6.3	1.5	5.8	6.8

*Indicates a significant difference between subgroup and other hikers based on a chi-squared test at alpha = 0.05.

Hikers who chose an easy hike were significantly more likely to be motivated by being outside [$X^2(1, N = 1071) = 8.77, p = .003$] and learning [$X^2(1, N = 1071) = 6.69, p = .01$], whereas participants who chose moderate or strenuous hikes were significantly more likely to be motivated by trying something new [$X^2(2, N = 499) = 8.73, p = .003$]. When comparing distance traveled to the state park, those who traveled more than 30 miles were significantly more likely to be motivated by trying something new [$X^2(1, N = 684) = 3.92, p = .048$]. For locals living less than 30 miles from the park, significant motivations were New Year's Day [$X^2(1, N = 965) = 6.90, p = .009$], exercising and improving health [$X^2(1, N = 965) = 8.49, p = .004$], and tradition [$X^2(1, N = 965) = 9.31, p = .002$] (Table 2.4).

Table 2.4: Motivations based on hike difficulty and distance traveled to state park

	Example	All hikers % (n=1787)	People Choosing Easy Hikes % (n=1071)	People Choosing Local Hikes % (n=965)
Being Outside	<i>“get out of the house and explore nature, fresh air.”</i>	27.1	29.6*	27.0
Trying something new	<i>“to try something different.”</i>	22.8	20.7*	20.7*
Spending time with family	<i>“great activity with the family.”</i>	19.0	15.2	14.2
Spending time with friends	<i>“visiting my friends”</i>	18.2	7.6	8.2
New Year’s Day	<i>“it’s a wonderful way to start the year!”</i>	15.1	18.4	21.2*
Hike Appeal (Location, time, distance)	<i>“close to our new home”</i>	14.5	16.7	17.2
Learning	<i>“the hike was a ranger-led hike to talk about the history, flora, and fauna”</i>	14.3	17.6*	13.6
Exercising and improving health	<i>“needed some exercise after too much eating and watching football”</i>	9.0	14.6	16.7*
Miscellaneous	<i>“fulfill an item on my bucket list - polar plunge”</i>	8.1	8.8	8.1
Tradition	<i>“have done it for 20 years”</i>	6.3	5.9	8.0*

*Indicates a significant difference between subgroup and other hikers based on a chi-squared test at $\alpha = 0.05$.

Perceived Benefits of the First Day Hike Experience

On the email follow-up survey, respondents were asked about the potential benefits they experienced by participating in a First Day Hike. Based on mean scores, the top two benefits recognized by hikers were *explore the natural world around me* (95.4%

strongly agree or agree, $M = 4.50$) and *exercise and improve my physical health* (93.1%, $M = 4.46$) (Table 2.5). These were followed closely by *develop positive views of nature* (93.4%, $M = 4.45$) and *rest, relax, and reduce my level of stress* (92.8%, $M = 4.45$). The least relevant benefit to participants was *accomplish a New Year's resolution* with 51.4% recognizing this benefit ($M = 3.60$).

Hikers with children were significantly more likely to recognize the benefit of spending time with family [$t(544)=8.17, p<0.001$]. The sample of first time hikers was small, but it is worth noting they listed “trying something new and exciting” as an important benefit associated with their First Day Hike experience. Racial and ethnic minorities were significantly more likely to recognize the benefits of spending time with friends [$t(544)=62.35, p=0.032$] and trying something new and exciting [$t(542)=66.78, p=0.042$]. There were no significant differences in perceived benefits based on hike difficulty or distance traveled to the state park.

Table 2.5: Perceived Benefits of First Day Hike Experience for various subgroups of First Day Hikers (*ranked based on relative importance of benefits listed 6 months after hike, % recognizing benefit*)

	Total (n=545)	First Time Hikers (n=15)	Racial/Ethnic Minorities (n=47)	Hikers with Children (n=160)
Explore the natural world around me	95.4	100.0	95.8	95.0
Develop positive views of nature	93.4	93.4	97.9	94.4
Exercise and improve my physical health	93.1	80.0	95.8	95.1
Rest, relax, and reduce my level of stress	92.8	93.3	95.7	95.7
Increase my quality of life	92.1	93.4	93.6	94.4
Try something new and exciting	82.9	93.3	93.7*	84.1
Spend time with friends	79.1	73.3	87.2*	87.6
Spend time with family	76.6	60.0	74.5	95.6*
Carry on an important tradition	59.6	33.3	46.8	66.8
Accomplish a New Year's resolution	51.4	66.7	59.5	56.9

**Indicates a significant difference between subgroup and other hikers based on an independent samples t-test at alpha = 0.05.*

Discussion and Implications

Who are First Day Hikers and what types of hikes do they prefer?

The results of this study indicate that the majority of First Day Hikers are White/Caucasian and highly educated, with most having a college degree or advanced degree. These results are consistent with those found in other studies of outdoor recreationists in the U.S. (Floyd & Johnson, 2002; Floyd, 1999). The range of ages for participants was wide, but most hikers fell between the ages of 40-60. The majority of

participants were new to the First Day Hike program and were participating in their first First Day Hike. Most respondents were experienced hikers, but the hikes did attract a few first-timers. While First Day Hikes might not be attracting many new people to outdoor recreation, they are getting outdoor recreationists to visit new parks that they haven't visited previously. This supports the notion that novelty is a powerful force driving people to travel and explore new areas (Crompton, 1979; Dann, 1981). Unlike many state park programs that tend to attract families and children, First Day Hikes seem to attract diverse audiences from a wide range of age groups. While about half of participants were hiking with their family, many were hiking with friends or a combination of both. There also were many solo hikers, some of whom commented that they were motivated to participate by the sense of community stemming from the presence of other hikers.

Most of the First Day Hikes offered were shorter distances of 1-3 miles, lasted less than two hours, and were classified as "easy" by hike leaders. There were minimal differences between the average hike distance and duration selected by various subgroups of hikers compared to the entire group of hikers, but this may be partly due to the fact that most hikes offered were similar in distance and duration. Racial and ethnic minorities were less likely to select a "strenuous" or "easy" hike, but were significantly more likely to choose a "moderate" hike. This pattern highlights the importance of offering hikes that are challenging, but not strenuous, to attract a more diverse audience. Other studies have also found that offering a variety of options for outdoor recreation – and trails specifically – attracts more diverse participants (Whiting et al., 2017; Chavez & Olson, 2008; Cronan, Shinew, & Stodolska, 2008).

There were minimal differences in hike attribute selection between first time hikers or hikers with children and all first day hikers. However, distance to the hike location seemed to matter. Hikers with children tended to travel farther and were less likely to live within 30 miles of the state park they visited, possibly enjoying the increasing opportunity for travel flexibility linked to the holiday. It appears that parents who recognize outdoor recreation benefits and want their kids to experience them may be less likely to be deterred by constraints such as distance (Larson et al., 2013; Barnett & Weber, 2008). On the other hand, first time hikers tended to travel shorter distances and were more likely to be from the same ZIP code as the state park they visited. For first-time hikers, distance to a recreation area remains one of the most common constraints for outdoor recreation participation (Shores, Scott, & Floyd, 2007). The results from this study illustrate that in order to attract new people to participate in an outdoor recreation activity, constraints such as traveling distance need to be addressed. As more First Day Hikes are added each year, this concern could be minimized. Furthermore, it should be emphasized that the majority of the First Day Hike participants lived within 30 miles of the state park they visited, supporting previous research that state parks are particularly important for local communities (Karieva, 2008; Pergams & Zaradic, 2008). This local visitation could also be an artifact of place attachment, or the strong connection that local visitors feel with a particular locale, making them more likely to return (Smith, Siderelis, & Moore, 2010; Kyle, Bricker, Graefe, & Wickham, 2004). Hikes that foster stronger connections to place particularly for locals, may be more likely to generate repeat visitors.

What motivates people to attend a First Day Hike?

The hiking motivation reported by the largest number of respondents was exploring outside and enjoying time in nature. Frequent positive experiences in nature, such as hiking, can build connections between people and the natural world, and can counteract the effects of nature-deficit disorder (Wells & Lekies, 2006; Louv, 2005). Though few studies have focused on day hikers specifically, a study of Appalachian Trail backpackers found that the idea of being outdoors and the scenic beauty of the area were what initially motivated people to hike (Hill et al., 2009). The second and third most popular motivations among First Day Hikers were trying something new and New Year's Day, which are directly related to the timing of the program and the idea of transformation and a fresh start. Spending time with others was also an important motivator for participants, with many hikers mentioning their family, friends, or social groups as their main motivation for participating in a First Day Hike. Multiple studies have shown that social interaction is one of the most important motivators for hiking and other forms of outdoor recreation (Whiting et al., 2017; Kim et al., 2015; Cronon, et al., 2009). This was especially true in the current study for hikers with children, who were significantly more likely to be motivated to participate in order to spend time with family. Research has shown that parents and guardians especially value communal recreation experiences such as those with family and friends in outdoor environments (Larson, Whiting, & Green, 2013).

Compared to other groups, first time hikers were more likely to be motivated by trying something new and exercising and improving their health. This finding suggests

that health promotion may indeed be a gateway to hiking and other nature-based activities for new recreationists (Seltenrich et al., 2015). Racial and ethnic minorities were less likely to list learning as their motivation for attending a First Day Hike, but were more likely to be motivated by New Year's Day and improving their physical health. These findings are consistent with other studies which found that African Americans showed greater representation in leisure when it included sports or fitness, social activities, and non-nature-based activities (Whiting, et al., 2017; Shinew, Floyd, & Parry, 2004). State and local parks have also been shown to be particularly important to the physical activity of minority groups such as Latinos (Larson, Whiting, Green, & Bowker, 2014; Larson, Whiting, Green, & Bowker, 2014). Because many Americans hold sedentary jobs and rely heavily on motorized transport, leisure-time physical activity serves an important role in maintaining physical health and can reduce the risk of heart disease, hypertension, and diabetes (Bedimo-Rung et al., 2005; Maller, Townsend, Pryor, Brown, & St. Leger, 2006; Sallis et al., 2000; Pate, Pratt, Blair, Haskell, Macera, & Bouchard, 1995). In this study, however, exercise and physical activity appeared to be less important to hikers with children.

Motivations also varied based on type of hike and distance traveled to the state park. Hikers who chose an easy hike were more likely to be motivated by being outside and learning, whereas participants who chose moderate or strenuous hikes were significantly more likely to be motivated by trying something new. Perhaps these moderate and strenuous hikes (many of which involved summiting mountains) represented a new and unconquered challenge to overcome. When comparing distance

traveled to the state park, those who traveled more than 30 miles were more likely to be motivated by trying something new. This could be because these hikers are seeking novelty or awe in a place they have not visited before or visit only infrequently because of distance (Lynn & Brown, 2003; Lee & Crompton, 1992; Dann, 1981; Crompton, 1979). For locals living less than 30 miles from the park, significant motivations were New Year's Day, exercising and improving health, and tradition.

How do participants perceive hiking-related benefits after their hiking experience?

Connection to Nature

Although hikers had many different motivations for attending a First Day Hike, most experienced similar benefits from their experience. The top two benefits recognized by hikers were *explore the natural world around me* and *develop positive views of nature*. *Explore the natural world around me* was also ranked by respondents as one of the most important benefits. This is particularly important as there appear to be links between recreation participation and environmentalism (Larson, Whiting, & Green, 2011; Wells & Lekies, 2006). Perhaps increased hiking participation could help to foster conservation values and stewardship behaviors within a U.S. population increasingly detached from nature.

Interestingly, racial and ethnic minorities and first-time hikers were just as likely to list *explore the natural world around me* as an important benefit when compared to other groups, even though it was not one of their top motivations. Studies have shown that nature motivations and park visitation are lower among African Americans and other

groups (Whiting et al., 2017; Bowker, Green, & Cordell, 2007). But, perhaps after trying different types of outdoor recreation activities such as hiking, individuals may overcome barriers to participation and forge new connections to nature.

Physical and Psychological Health

These next most recognized benefits were *exercise and improve my physical health* and *rest, relax, and reduce my level of stress*. It seems that many hikers recognize the unique physical and psychological health benefits that parks provide (Hartig et al. 2014; Larson et al., 2016). Research has shown that parks are important locations for physical activity, especially among minority communities and locals (Floyd, Taylor, & Whitt-Glover 2009; Cohen, McKenzie, Sehgal, Williamson, Golinelli, & Lurie, 2007). First time hikers also listed *trying something new and exciting* as one of the most important benefits from their First Day Hike experience. If the excitement linked to novelty could be coupled with increasing recognition of nature-related health benefits, this could lead to more outdoor recreation participation in the future.

Despite many hikers mentioning the New Year as one of their motivations for participating in a First Day Hike, *accomplish a New Year's resolution* was the least important benefit to participants. Perhaps, after 6 months had elapsed since their hike on January 1, many web survey participants had forgotten about this pledge or simply not accomplished their New Year's resolutions.

The psychological health benefits of nature are also well documented, with time in nature improving mental cognition for both children and adults, as well as overall mental health by reducing stress levels (Bratman, Hamilton, & Daily, 2012; Taylor, Kuo,

& Sullivan, 2001). Hiking specifically has been shown to promote feelings of peace and relaxation (Hill et al., 2009). Increasing awareness of these benefits could help to foster a happier and healthier population via hiking and other forms of nature-based recreation.

Social Benefits

One of the most important benefits to hikers was *spending time with family*. Parks provide important social benefits by offering opportunities for interaction with the broader community as well as with family and friends (Ginsburg, 2007; Bedimo-Rung et al., 2005). Racial and ethnic minorities were significantly more likely to recognize the benefits of *spending time with friends* and *trying something new and exciting*, which is consistent with many participants' motivations prior to their hiking experience and consistent with existing literature highlighting the importance of socially-oriented recreation opportunities within minority communities (Whiting et al., 2017; Stodolska, Shinew, Floyd, & Walker, 2014).

Hikers with children were more likely to recognize the benefit of *spending time with family* as a key aspect of their First Day Hike experience. Research has shown that parents and guardians especially value communal recreation experiences such as those with family and friends in outdoor environments (Larson et al., 2013). Future research should continue to investigate the motivations of hikers and the benefits associated with hiking, helping managers to understand broader impacts and implications for recreation, health, and park management.

Conclusions

Hiking is consistently ranked as one of the most popular recreation activities and one that continues to grow (Outdoor Foundation, 2016), yet few studies have focused on the motivations and benefits experienced by casual day hikers (i.e., those who are not backpackers or overnight tourists). Although First Day Hikers may represent a unique subset of day hikers (i.e., those that gravitate towards events), they offer a unique window into the minds of hikers across a wide range of experience levels. This research helps fill an important gap for outdoor recreation managers by providing information about their current audience and the reasons people hike, which could help to inform strategic communication and subsequent recreation participation across diverse audiences. Although the concept of outcomes-focused management has permeated many aspects of recreation (Stein & Lee, 1995), it has rarely been applied to day hiking. By understanding recreation preferences and reasons why people come to a hiking program, future programs can be designed and marketed to focus on outcomes valued by different groups of potential participants (Hill, Goldenberg, & Freidt, 2009; Manfredo et al., 1996)).

This study of First Day Hikers shows that people are motivated to hike for many different reasons, ranging from connecting with nature and social interaction to physical and mental health. Different subgroups of hikers (e.g., first time hikers, racial/ethnic minorities, groups with children) are driven by different motivations. Because of this, managers should offer variable hikes and hiking environments that appeal to specific users and their personal interests and goals. First Day Hikes have a unique potential to inspire “new” recreationists, but demographic results from this study suggest that is not

currently happening on a large scale. While this research provides insight into why day hikers choose to hike, future research could expand on these motivations and also examine potential barriers and constraints to participation, especially among new hikers and racial and ethnic minorities. First Day Hikes are a widely popular state park program offered across the country, so there is a continuing need to understand how hikes – and First Day Hikes in particular – can be managed and marketed to serve America’s increasingly diverse population so that everyone can benefit from this time in nature.

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CHAPTER THREE

FIRST DAY HIKES: IMPACTS AND IMPLICATIONS FOR THE FUTURE

Executive Summary

First Day Hikes, which occur on New Year's Day, are part of a nationwide initiative led by America's State Parks to get more people outdoors. The concept became a national movement in 2012 when all 50 state park systems held at least one First Day Hike for the first time. In 2016, over 56,000 people across the US attended one of the nearly 1,200 First Day Hikes offered. Despite the popularity of the First Day Hike initiative, relatively little is known about the First Day Hikers themselves or the broader impacts this experience, as the program had never been formally evaluated. Synthesizing data from three of the more popular First Day Hike states, our study used pre and post-hike feedback from participants to highlight positive and negative aspects of the hikes, assess broader program impacts and identify potential opportunities for improvement in future years. Recommendations included a targeted emphasis on marketing toward and recruiting specific subgroups such as first-time hikers, families with children, and racial/ethnic minorities; improving crowd control on the busiest hikes; and working to foster stronger enduring connections between participants and the parks they are visiting. Results from this study illustrate factors driving the overall success of the First Day Hikes initiative and show that this (and similar) park-based programs have the potential to affect outdoor recreation participation, foster connections between people and nature, and inspire future stewardship behavior.

First Day Hikes – A Brief Background

First Day Hikes are part of a nationwide initiative lead by America's State Parks to get more people outdoors to enjoy the physical health, social, and environmental benefits associated with nature-based recreation. Each year on January 1st, state parks around the country collaborate to offer hikes of varying distance, difficulty levels, and durations at their sites. These hikes are designed for children and families, as well as adult participants. The hikes are guided by state park staff and volunteers who decide when and where the hikes are offered and how to structure the program. Hikes vary depending on the location. For instance, a coastal state park may offer a sunset walk and bonfire on the beach, but an inland site might offer a hike around a lake or up a mountain.

Despite these variations, one aspect of the hikes is consistent across states: their popularity. The First Day Hike concept was initiated in Massachusetts in 1992 with one hike at Blue Hills Reservation. In 2012, when the National Association of State Park Directors (NASPD) began administering the program, all 50 state park systems held at least one First Day Hike for the first time (America's State Parks, 2012). Participation in the program has steadily grown since. In 2016, 1,169 separate hike offerings enabled 56,000 state park visitors to hike over 130,000 miles (First Day Hikes Results, 2016). The First Day Hike program experienced another increase in 2017, with over 1,300 hikes offered across the country and 62,657 hikers (Figure 3.1).

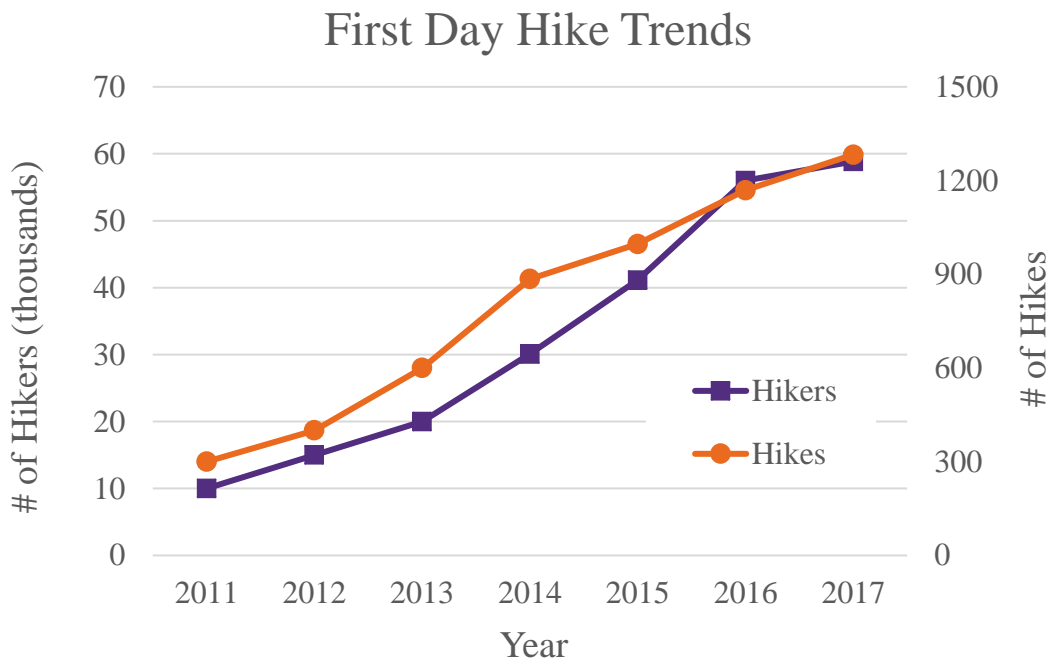


Figure 3.1: First Day Hike trends from 2011-2017: 2011-2013 are estimations obtained from state park staff, while 2014-2017 represent statistics collected by NASPD.

Although typically hosted within state parks, First Day Hikes are made possible by the work of many individuals at the local, state, and national levels. First Day Hikes are typically free, with many sites only requiring a park entrance fee (if applicable). To finance the program and keep costs down, state parks sell promotional items such as hats, keychains, and magnets, and use volunteers to assist their staff as hike leaders (First Day Hikes, 2016). Some parks also use their partnerships with local organizations, their “friends” group, or hiking clubs to support the event. In some cases, state parks partner with other agencies such as the National Park Service and U.S. Forest Service to put on programming. Though the hikes differ depending on the location, they all tend to share a

message related to the New Year or the winter season. For example, one park in Georgia held a bonfire at the end of their hike where participants were encouraged to burn their burdens from the previous year. At another site in South Carolina, hikers had the opportunity to participate in a polar plunge – jumping into the chilly water to start the year by trying something new and exciting.

Each year, a national coordinator from one state oversees the program. The national coordinator position shifts from state to state every few years (and is currently based in Georgia). This individual creates a toolkit for state park staff across the country with directions and suggestions for making their First Day Hikes a success. The national coordinator sends reminders to each state coordinator with deadlines to encourage all of the different parks to participate and post online. The national coordinator also gathers information, descriptions, pictures and summaries from each statewide coordinator. After the event, the state coordinators gather statistics collected by each park for use by staff or researchers who want to track the success of this program. This information is compiled by the national coordinator and used to write a follow-up public service announcement that is sent out across the nation.

To promote First Day Hikes, there are a variety of items such as stickers, hats, and hiking medallions bearing the First Day Hike logo that state parks can sell or giveaway to participants. Using the pictures and summaries gathered from each state, online promotional materials and public service announcements are created and posted on www.recreation.gov, NASPD's website, and other publications to market the program. Individual state agencies promote their hikes on their respective websites and social

media accounts. Participants are encouraged to share their adventures on social media by using #FirstDayHikes. The details of every states' hikes are located at www.stateparks.org. Many states also choose to market their hikes using newspaper, television, and radio announcements as well as through signage in the local area and at the parks.

Despite the widespread popularity of this program, it had never been formally evaluated. At the national level, formal hike statistics were not even compiled until 2014. At the local level, most parks were basing their evaluations on unsolicited feedback provided by visitors to park rangers. Some of this anecdotal evidence suggests that First Day Hikes attract a number of first-time outdoor recreationists, many of whom have never experienced state parks before (P. Geigis, personal communication, 2016). These hikers seem to appreciate the opportunity to enjoy an active outdoor experience with family and friends during a season (winter) not typically associated with state park-based recreation. It is also possible that participation in the hikes might have broader effects on health and well-being, participation in outdoor recreation, and support for parks and natural resource conservation, but these propositions have never been tested. Most information about the First Day Hike experience and its broader impacts remain purely speculative. For these reasons, it is important for researchers and practitioners to understand who participates on these hikes what short and long-term impacts the hikes have on participants. We designed a study to answer those questions.

Methods for Studying the First Day Hike Experience

Although First Day Hikes occur in every state, our investigation focused on three state park systems that are among the most popular First Day Hike destinations: Georgia (managed by the State Parks and Historic Sites Division of the GA Department of Natural Resources), Massachusetts (managed by the MA Department of Conservation and Recreation), and South Carolina (managed by SC State Parks within the SC Department of Parks, Recreation and Tourism). Massachusetts was selected because it was the birthplace of the First Day Hike initiative in 1992. Georgia and South Carolina were chosen because of their location in a different geographical region of the United States and their proximity to the research base at Clemson University. All three states were among the top 10 states in the country in terms of total number of first day hikers in 2016. We focused our sampling efforts on participants at hikes in 41, 11, and 38 state parks or historic sites in Georgia, Massachusetts, and South Carolina, respectively. We collected data in two phases. Phase one took place on January 1, 2016, just before participants went on their First Day Hike. Phase two occurred during June and July 2016, approximately six months after the hikes.

Field Survey

In the first phase of the research, we conducted an intercept survey of all adult First Day Hike participants in the three participating states. Based on input from agency directors and staff, we then designed a brief questionnaire in index card format (Appendix A) and distributed these questionnaires to the respective state coordinators.

State coordinators shipped the cards to the various hike leaders at parks across the state, along with implementation instructions (Appendix B). On the day of the hike (January 1, 2016), hike leaders asked all adult participants (age 18+) to complete a pre-hike questionnaire and submit it before starting down the trail. The cards took approximately 2 minutes to complete.

To understand participant “firsts,” we asked respondents to indicate whether or not this was their first time in THIS park, their first time in any state park, their first time hiking, and their first time on a First Day Hike (Appendix A). Respondents were also asked to indicate basic demographic characteristics such as age, gender, and race/ethnicity. Questions about hiking group structure focused on general composition (e.g., just me, family, friends, other) and specific numbers in the group (both adults age 18 and older and children). Respondents were also asked to provide their home ZIP code to estimate distance traveled to the hike from their point of origin. Finally, respondents were asked how they learned about this First Day Hike.

After the hike, hike leaders completed a short form (Appendix C) with additional information about the hike that they led. We asked leaders to provide information about the park, the hike’s location within the park, distance (approximate hike length), intensity (easy, moderate, or strenuous), weather (temperature and conditions), and number of adult and youth participants. Once all of the information from First Day Hikers was collected on January 1, hike leaders sent a packet that included the participant responses and hike information sheets back to the state coordinators. Coordinators assembled cards from all parks across the state, then sent them back to the Clemson-based research team

for data entry and analysis. Across the three states, 1,934 surveys were collected on January 1, 2016. Based on estimates of total hike numbers reported by hike leaders, this equated to a 49.7% response rate.

Follow-up Survey

Although Phase 1 data collection yielded basic information about who was attending these hikes, questions remained about the hikes' broader impacts. In Phase 2, we contacted a subset of the First Day Hike Field Survey participants via email (email addresses were provided by almost 70% of participants on the pre-hike questionnaire). Using an in-depth web survey (Appendix D), we attempted to develop a more comprehensive understanding of the most important benefits participants gained after their First Day Hike, the impacts of this experience, what participants liked most and least, and suggestions for future hikes. Questions about the impacts associated with recreational experiences are often asked during or just following the experience, but we decided to wait for approximately 6 months to minimize bias associated with immediate reporting, allowing more time for impacts to be evaluated.

Respondents rated their overall satisfaction with the First Day Hike experience and also had the opportunity to write what they liked most and least about their First Day Hike experience. Participants were given an opportunity to provide suggestions for First Day Hikes in the future. Respondents who had children under 18 years old with them on their First Day Hike also had the opportunity to offer suggestions for youth participation.

To determine the most important benefit participants felt they gained from their experience, we created a list of ten statements based on “reasons for hiking” that participants provided on the field survey. Next, we asked respondents to select from a drop-down list which one of the ten potential benefits mentioned in the previous question they valued most. Respondents were also asked a variety of questions related to their outdoor recreation participation (and their children’s participation if applicable) and if it had decreased, stayed the same, or increased in the six months following their First Day Hike. Potential broader impacts linked to the hike experience were also investigated by asking respondents about their participation in a variety of conservation-related behaviors such as talking to others about park-related issues, donating money to support parks, and volunteering in parks. These behaviors were selected based on those identified in a previous study of recreationists (Larson, Stedman, Cooper, & Decker, 2015). We then asked if these behaviors were influenced by attending a First Day Hike. One potential limitation of this style of questioning is social response bias, with hikers responding with the answers they believe researchers are expecting to hear.

The web survey was distributed using a multiple-mailing approach via Qualtrics in June and July 2016. Following completion, both the field and web survey data for individual participants were integrated to generate a more complete response profile for each First Day Hiker. Overall, 1,137 participants provided a valid email address on the field survey, enabling us to follow up with them later in June and July 2016. During that second phase of data collection, 584 web surveys were collected, yielding a 51.4% response rate.

Data Analysis

Our analysis of key outcome variables includes basic descriptive statistics associated with each variable to create a profile of hikers and assess hike-related benefits and impacts. It also includes comparisons between key groups of interest (e.g., first-time hikers, racial/ethnic minorities, groups with youth) using chi-squared tests (categorical response data) and independent samples t-tests (continuous response data).

First Day Hikes and Hikers: An Overview

We sampled a total of 114 First Day Hikes: 55 in Georgia, 14 in Massachusetts, and 45 in South Carolina. The average distance hiked was 2.1 miles (median 2.0), and the average hike duration was 1.6 hours (median 1.5). The majority of hikes (65.5%) were classified as “easy” by hike leaders, followed by “moderate” (30.9%), and “strenuous” (3.6%). The average number of people on each hike was 31 in Georgia (median 26), 121 in Massachusetts (median 108), and 24 in South Carolina (median 19). Group size ranged from 2 participants to over 300 participants on the most crowded hikes. The top three ways people learned about the First Day Hike they attended were word of mouth (29.6%), social media postings (25.8%), and websites (23.8%). For first time hikers, word of mouth (45.6%) and social media (36.7%) were more popular, whereas websites (11.4%) were less popular.

The majority of participants (60.1%) were participating in their first First Day Hike, and many (36.1%) were visiting a park they had never visited previously. For 4.1% of participants, this represented their first hiking experience of any kind. The average age

of participants was 51.8 years old with an age range of 18-91 years old and just over half (52.9%) were female. The majority of First Day Hikers were White/Caucasian (84.9%), followed by Black/African American (3.5%), Asian (2.4%) and Hispanic/Latino (1.7%). Almost half of the participants (48.9%) were hiking with their family and many were hiking with friends (15.7%) or a combination of both (14.7%). About 13.2% of hikers were solo hikers. Personal hiking groups typically had 1 (20.7%) or 2 (49.1%) adults present, and 66% of groups had no children. Groups that did include children tended to have only 1 or 2 youth present. The average personal group size for hikers across all states was 3.6 people, with an average of 0.8 children per group. Collectively, these numbers illustrate that this experience does not just appeal to families with children, but to a more diverse adult audience as well.

The average distance traveled to the state parks for First Day Hikes was 75.1 miles, with a median distance traveled of 25.2 miles. Georgia and South Carolina had many more visitors from out-of-state, likely people visiting family and friends for the holidays, which increased these distance estimates substantially. Almost 60% of the First Day Hike participants lived within 30 miles of the state park they visited. First time hikers tended to travel shorter distances and were significantly more likely to be from the same ZIP code as the state park they visited. Hikers with children tended to travel farther and were significantly less likely to live within 30 miles of the state park they visited for their First Day Hike. Research has shown that parents and guardians especially value communal recreation experiences such as those with family and friends in outdoor

environments, which may explain this greater commitment among families with youth (Larson, Whiting, & Green, 2013).

Understanding the Hike Experience

Things Participants Liked the Most

On a scale from 1 “very dissatisfied” to 5 “very satisfied,” participant satisfaction with the hike experience was high with an average rating of 4.4 or higher among all subgroups. For almost half of respondents (n=266), the guides and the associated learning experience were the most rewarding aspects of the hike. One hiker aptly summarized these thoughts “I really enjoyed learning about the area. The guide was great.” The next most appealing aspect of the experience was being outside and enjoying nature (n=187). Another hiker noted that few things are as satisfying as “being out in nature on a beautiful morning!” Another valuable aspect of the hikes was the opportunity they afforded for spending time with others and connecting with the community (n=175). One hiker lauded “the community feeling that it [the hike] inspired,” and another appreciated “being able to participate with friends.” Spending time with others was rarely mentioned by First Time Hikers (n=1), but was very important to hikers with children (n=68).

The hike itself and the variety of the locations were mentioned as appealing aspects of the experience (n=122). For example, a hiker commented on “the availability with varied time options at various parks. I also liked receiving the Park Guide Book that was incentive to visit other parks and provided useful information.” New Year’s Day and the opportunity to participate in a new experience were also important features of the

hikes (n=121). One hiker summarized this sentiment: “The ability to start the New Year doing something active, affordable and mentally & physically healthy in a gorgeous setting made this event very enjoyable!” Proportionately more racial/ethnic minorities (n=16) commented that they enjoyed the New Year’s Day connection and new experiences more than other groups other hikers.

Things Participants Liked the Least

Many respondents had only positive things to say about their hike experience (n=165), but the least liked aspect of the hikes was their timing (i.e., early start times or not starting on time), location (i.e., hiking on a road rather than a trail), or the difficulty of the hike (i.e., hikes that were too easy or too short for participants) (n=138). For example, one hiker noted that the hike “started a little early. I had about an hour or so drive to get there.” Another said “It was very short; I went on to walk another couple of miles in the park.”

Other prominent concern voiced by respondents focused on perceived crowding and negative interactions with other visitors (n=100). As one hiker noted, “the crowd was large (which is a good thing), but it made it difficult to hear the guide unless you stayed at the head of the pack.” Another said, “hikers with out of control dogs and improper footwear/attire.” Crowding and negative interactions between day users, such as hikers, are not concerns unique to state parks. Another study focusing on wilderness managers, found that these same concerns were perceived as problems in popular wilderness locations (Abbe & Manning, 2007).

Some participants (n=93) also mentioned concerns about weather and trail conditions, including things like “some of the boardwalks were slippery.” Though most respondents were happy with the learning opportunities offered by their hike, a few commented that they were hoping to learn more (n=66). For example, this hiker who said “I only wish it could have been longer and provided additional information about the area. We are newcomers to [town] and enjoy exploring the area.”

Suggestions for Future First Day Hikes

The suggestions provided for improving the First Day Hike experience were grouped into three main categories: (1) suggestions for marketing the hikes, (2) suggestions for managing the hikes, and 3) suggestions for enhancing hikes for youth.

Marketing First Day Hikes

Many participants commented on how they learned about the First Day Hike they attended. “Get the word out in more places (library, schools, radio internet),” said one hiker. “It was just happenstance that I found out about the walk. We took our grandson camping and saw signs at the park.” Another said:

Although my husband found the announcement of this activity in our local paper, the notice was fairly small and could be easy to miss. A write-up of last year's event along with announcement of this year's event in an article with a picture or two might be worthwhile.

One participant suggested to “expand the First Day Hikes to more sites and get more corporate sponsors to provide prizes and discounts on products and services.” He also “liked the first day hats” as a way to promote the experience.

Social media was frequently mentioned as one successful option for promoting the hikes: “I learned of this hike through Facebook” claimed one hiker. Another respondent suggested a “Facebook countdown to the first day hikes - perhaps each day spotlight one of the planned hikes.” However social media advertising may not reach all potential First Day Hikers as this participant pointed out:

First Day Hikes were marketed through social media probably to folks who'd already ‘liked’ Georgia state parks, or as sponsored/promoted sites. It is very important to get the word out to folks who might otherwise not know about activities available at Georgia State Parks to grow users/patrons from different demographic groups.

Some participants even showed a desire to take a more active role in the success of this and other programs in state parks. One hiker remarked,

Would love to have more hikes throughout the year. We the residents of SC need to help spread the word of upcoming events when we are speaking to friends and family. Our park had it on social media and maybe we should pass out fliers at schools.

Managing First Day Hikes

Many participants were looking for a more physically demanding activity: “Make it a true hike. Of the three hikes none was over 2 or 3 miles,” said one hiker. Another

stated they wanted “for it to be an actual hike, involving some measure of physical activity.” Some of the suggestions offered were to improve hike organization. One hiker recommended “better organization... probably two separate groups for different paces and interests such as hikes for faster hiking and others for identifying natural sights and historical sites.” The most common complaint-based suggestions were those related to crowds and the lack of a more personal guided experience: “For a large group, I would have liked the guide to tell us things to look for or give us a handout of a few trees, plants, or wildlife to look for so we can learn something” said one hiker. Another suggested that managers “limit the number of hikers so all can hear the guide.” Many respondents, where hikes had more participants, suggested things like “Pre-registration should be a must so the number of people are known in advance. Then, the walk could have been broken up into smaller groups with staggered start times.” Another respondent added “add more rangers and more hikes so there are smaller groups of hikers.” A third participant also shared these sentiments, urging managers to “limit the participation to a manageable size group of hikers.”

Many First Day Hikers expressed an interest in having more opportunities throughout the year to participate in other state park events. One hiker said: “Having plans for a follow-up hike would be nice!” Another respondent suggested “Do more organized hike events, like first weekend of each month or even every weekend.” Hikers seemed to want more interaction with the larger group. One participant suggested “maybe use some icebreakers to help people meet one another.” Respondents seemed to enjoy having a memento to take away from the hike. “Have first day hike merchandise

available to buy - t-shirt or hats. Build on it, throughout the year and repeat first day hikes - second year hiker, third year hiker etc...” suggested one hiker. Participants were also excited to see new hikes offered, “This was the first time I’ve seen it advertised for [this park]. I hope they can make it an annual event this park” said one hiker.

Suggestions for Enhancing Hikes for Youth

Many parents of children under age 18 whose children attended the First Day Hike commented on the positive aspects of the hikes for youth. One hiker stated, “Keep doing what they’re doing. It was perfect for the kids.” Another hiker said “It was great” and one mother shared these same thoughts and said, “Mine was 14. Perfect for her.” In addition to this positive feedback, other hikers offered reflections and suggestions for improving youth participation on future First Day Hikes.

Several participants recommended a longer experience. For example, one hiker suggested “more activities before, during, and after the hike. Make it an event.” Another said, “Maybe a little longer option. Do one hour maybe for those who want a shorter walk and offer another hour for those who want to see another area of the park. To make a day of it!” The most frequently mentioned suggestion was to incorporate “more hands on exploration” such as a “trail scavenger hunt for kids as well as kids at heart” and to make sure activities are appropriate for a variety of age groups from preschoolers up to adolescents. One hiker suggested giving youth participants a goal to accomplish during the hike, she said, “We go to [this park] often, and participate in all their environmental

days and clean-up activities. If you give the kids something to do to make them feel important, they will be vested in the project.”

Many adults described how mementos and prizes might help the experience continue throughout the year. “My daughter loved the first day hike sticker! She would love a coloring page to go with it!” Another hiker noted:

Perhaps offering the children a token or item from the program experience: e.g. t-shirt, cap, wristband, flashlight, or any item featuring the park system logo that kids may take home with them. I understand there is a cost involved with this suggestion, however, I think it would add something tangible that the kids can take away.

First Day Hikers also appreciated having something warm to eat after their hike, “My kids were all about that cider” and “the kids got s'mores by a campfire!”

Many participants had positive things to say about their hike leaders, (e.g., “our guide was incredible”), but others shared ideas about hike leaders that could improve the experience for youth. “The ranger was swamped with questions along the way and he was awesome at answering and entertaining the kids. But! Maybe more than one ranger on the hike to help rally the kids and one ranger to help with whatever else arises” and “maybe have youth leaders (scouts?) to help increase interest of young kids.”

Impacts of First Day Hikes

Perceived Benefits

The most important benefits to hikers were *exploring the natural world* (rated as most important by 26.4% of respondents) and *spending time with family* (21.1%). These were followed by *exercise and improve my physical health* (11.8%) and *rest, relax, and reduce my level of stress* (10.7%) (Table 3.1.). Similar perceived benefit categories have also been identified in other studies (Whiting, Larson, Green, & Kralowec, 2017), though our findings suggest that exploring nature appears to more important to hikers than other types of state park recreationists. The least important benefit to participants appeared to be *accomplish a New Year's resolution* with only 1.0% rating it as the most important.

Hikers with children were significantly more likely to list spending time with family as the most important benefit of their First Day Hike experience. The sample of first time hikers was small, but it is worth noting they listed exercise and improving my physical health and trying something new and exciting as the most important benefits from their First Day Hike experience. Racial and ethnic minorities were more likely to list explore the natural world around me as their most important benefit when compared to other groups.

Table 3.1: Most Important Benefits of First Day Hike Experience for various subgroups of First Day Hikers (*ranked based on relative importance of benefits listed 6 months after hike, % rating as most important*)

	Total (n=545)	First Time Hikers (n=15)	Racial/Ethnic Minorities (n=47)	Hikers with Children (n=160)
Explore the natural world around me	26.4	14.3	28.3	11.3
Spend time with family	21.1	7.1	10.9	53.0*
Exercise and improve my physical health	11.8	28.6	8.7	4.6
Rest, relax, and reduce my level of stress	10.7	14.3	17.4	11.3
Try something new and exciting	8.5	21.4	10.9	4.0
Increase my quality of life	6.5	0.0	8.7	4.6
Spend time with friends	6.3	7.1	6.5	4.6
Carry on an important tradition	4.5	0.0	4.3	3.3
Develop positive views of nature	3.4	7.1	2.2	3.3
Accomplish a New Year's resolution	1.0	0.0	2.2	0.0

**Indicates a significant difference between subgroup and other hikers based on a chi-squared test at alpha = 0.05.*

Outdoor Recreation Participation

The majority of participants (94.1%) were interested in attending future First Day Hikes and many (87.6%) also had an interest in attending other organized hikes at state parks. In the sixth months following their First Day Hike, state park visitation had increased for 36.6% of respondents and hiking frequency increased for 41.1%. About a third of First Day Hikers also indicated that they were more likely to participate in general nature-based activities following their hike experience. First time hikers and racial/ethnic minorities' hiking participation increased significantly when compared to

other all hikers (Table 3.2.). The demographic composition of the U.S. is shifting and minority groups will soon no longer be in the minority (United States Census Bureau, 2010). While minority participation is underrepresented in nature-based outdoor recreation (Whiting et al., 2017; Stodolska, Shinew, Floyd, & Walker, 2014), the results of this study indicate that after overcoming the initial obstacle of attending a program or hiking for the first time, first-time recreationists may be more inclined to participate in these activities on their own in the future. Yet, even though they were hiking more frequently, first time hikers were less likely than their more experienced counterparts to have visited state parks since their First Day Hike. This is likely due to the fact that state park visitation has not historically been part of their normal recreation patterns, at least not compared to regular visitors. Perhaps this would change with time.

In contrast, participants with children were significantly more likely than other respondents to have visited state parks following the hike. Hikers with children reported that nature-based activities increased for 34.9% of youth participants and hiking frequency increased for 39.5% of youth in the six months following their First Day Hike. The escalating presence of digital diversions (Rideout, Foehr, & Roberts, 2010) and lack of free time (Shores, Scott, & Floyd, 2007) have led to an absence of authentic experiences in nature, often described as “nature-deficit disorder” (Louv, 2005). This can negatively impact development (Kellert, 2005), physical and mental health (Maller, Townsend, Pryor, Brown, & St. Leger, 2006; Larson, Whiting, & Green, 2013), social interactions (Bedimo-Rung, Mowen, & Cohen, 2005), and environmental conservation (Zaradic & Pergams, 2007). The results from this study illustrate that First Day Hikes are

one potential management strategy that can help to combat these constraints to outdoor recreation, foster positive interactions between humans and nature, and address consequences associated with nature-deficit disorder (Weiler, Moore, & Moyle, 2013).

Table 3.2: First Day Hikers’ Changes Outdoor Recreation Participation in the Six Months Following their First Day Hike

	Total (n=545)	First Time Hikers (n=15)	Racial/ethnic Minorities (n=46)	Hikers with Children (n=151)
State park visitation increased	36.6	26.7	35.6	37.9
Visited at least 1 state park after their FDH	81.7	40.0*	71.7	87.5*
Visited 3 or more state parks after their FDH	52.4	16.7	46.9	58.4
National park visitation increased	17.0	13.3	17.4	20.3
Local park visitation increased	26.0	26.7	34.8	27.5
Nature-based activities increased	30.9	26.7	28.3	34.4
Hiking frequency increased	41.1	60.0*	58.7*	44.2

**Indicates a significant difference between subgroup and other hikers based on a chi-squared test at alpha = 0.05.*

Support for Parks and Conservation

Respondents were also asked about their participation in a variety of conservation-related behaviors and the extent to which these behaviors were influenced by First Day Hikes for all hikers in the sample. “Talking to others about park-related issues” had the most participants (78.1%), and 53.5% of people who engaged in this behavior said their participation was influenced by attending a First Day Hike (43.8% of

total sample). This was followed closely by “working to make my yard or my land more desirable for wildlife” (71.3%), with 29.6% of participants who did this being influenced by their First Day Hike experience (23.2% of total sample). More than half of respondents also said they made financial contributions to support parks (60.7%), with 35.5% of donors being influenced by their hike experience (23.1% of total sample) (Figure 3.2.). These numbers might not sound impressive, but when one considers the entire population of First Day Hikers this equates to tens of thousands of individuals who would be willing to make financial contributions to parks after their First Day Hike (Zaradic, Pergams, & Kareiva, 2009). Fewer hikers (27.5%) reported actively participating in a “friends” group or other park organization, but 38.0% of individuals who did said their First Day Hike was a factor (14.1% of total sample). Volunteering in parks was even more rare (20.4% of participants), but 24.4% of those that volunteered were influenced to do following their First Day Hike (7.8% of total sample).

Only a few differences were observed among subgroups with respect to conservation behaviors. First time hikers were significantly less likely to participate in “talking to others about park-related issues” and also less likely to be influenced to do so by their First Day Hike. Racial/ethnic minorities were significantly less likely than other hikers to “make their yard or land more desirable for wildlife.”

First Day Hikers' Support for Parks and Conservation

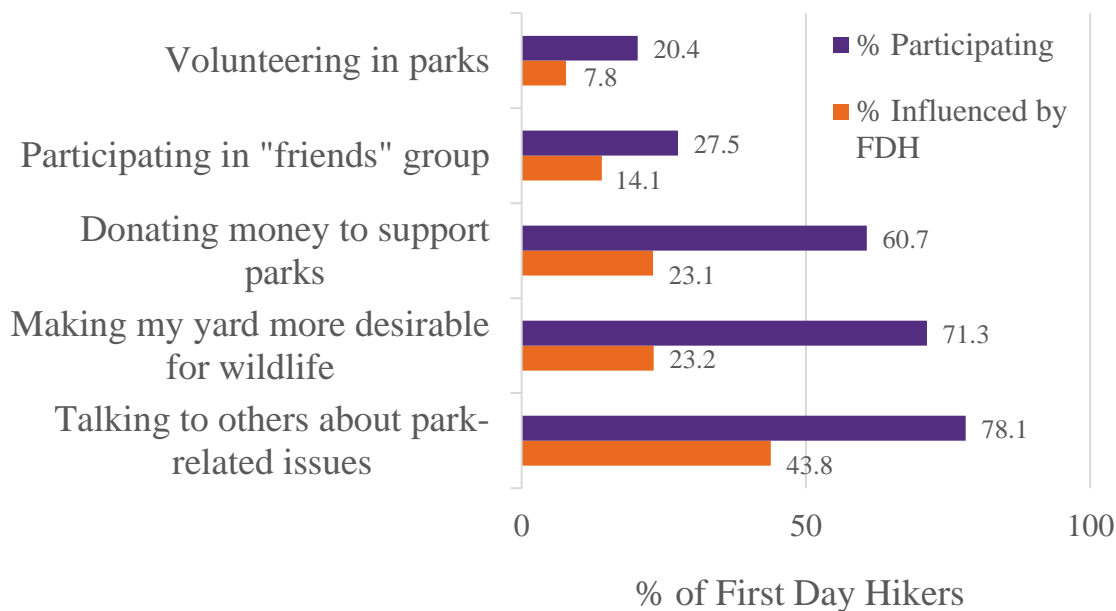


Figure 3.2: First Day Hiker participation rates for a variety of conservation behaviors and the percentage of individuals in the full sample (n = 584) whose First Day Hike experience influenced their participation.

Recommendations and Future Implications

Our study revealed that First Day Hikes are popular for many different reasons, but their overall value revolves around connections to nature and connections to family and friends. Many participants also viewed hikes as a way to try something new and exercise and improve their health. Although First Day Hikes rarely attract new people to hiking (less than 5% of participants were first-time hikers), they enhance exposure to different parks – often leading to increased state park visitation and outdoor recreation participation. For many hikers, the First Day Experience also appeared to influence support for parks and conservation, including behaviors such as talking about

park-related issues or donating money to support parks. All of this suggests the broader impacts of the hikes may extend beyond the single day hiking experience.

Even though First Day Hikes already impact many people in many ways, results of this study suggest the power of this uniquely popular initiative could still be expanded and enhanced. Specific recommendations for future First Day Hike programming and research include:

1. **A more targeted emphasis on marketing toward and recruiting first-time hikers.** While the sample of first time hikers was small, they valued that their First Day Hike was a new and exciting experience as well as one that got them exercising. To attract new hikers, hikes offered should be moderately challenging and offered in parks closer to urban areas where the majority of the population lives because distance to the recreation site was an important factor in participation. For the first-time hikers who attended the hikes, the experience appeared to have a significant positive effect on their future hiking participation.
2. **Expanded efforts to attract youth and families with younger children** by offering easier walks and providing additional activities (e.g., more hands-on exploration), perks and incentives (e.g., food, treats, mementos) along the way. After attending a First Day Hike, youth saw increases in their physical activity outdoors and families with children visited significantly more state parks.
3. **Enhanced engagement with minority communities**, who are underrepresented in outdoor recreation in general and extremely underrepresented on First Day Hikes. This might require offering more hikes in diverse park settings near urban

centers (most participants selected hikes close to home) and promoting the social aspect of this program which was an important benefit for minority participants. Parks should also emphasize the novelty of this type of health-oriented, nature-based New Year's Day resolution. For the racial/ethnic minorities who attended the hikes, the experience appeared to have a significant positive effect on their future hiking participation.

4. **More strategic approaches to crowd control** are needed, particularly as hike popularity increases. Some hikes (especially in Massachusetts) already exceed 100 participants, and those numbers are projected to grow in future years. Leaders should integrate creative methods of interpretation (e.g. multiple co-hike leaders distributed throughout the group) and group management (e.g. groups for faster and slower hikers) to ensure that all visitors continue to have enjoyable and informative First Day Hike experiences.
5. **Continued engagement after the hike** would appeal to many participants and could build off of the First Day Hike program. This engagement could be through hiking programs or larger scale events to offer an opportunity for group hiking throughout the year. Some respondents saw increases in their hiking activity following their First Day Hike, but more could be done to expand these effects.
6. **Find ways to convert hikers into park advocates.** Volunteers are a crucial element to the success of America's State Parks, and they can also serve as hike leaders for First Day Hikes. Yet few respondents said they were engaged with park organizations or volunteering in state parks, and the current influence of First

Day Hikes on these behaviors appeared to be relatively weak. Parks could use this experience as an opportunity to recruit more people to volunteer in state parks and help with other programs in the future.

7. **Future research could consider challenges and opportunities associated with First Day Hike implementation and impacts in other states.** An expanded research agenda would provide additional insights to help inform future management and marketing of hikes, helping to ensure that all people have the potential to benefit from this unique experience.

The nearly unprecedented success of the First Day Hike initiative cannot be disputed, but efforts to address the recommendations noted above could make the program even more effective and impactful. By solidifying bonds with the existing visitor base and creating connections with new audiences, managers could use First Day Hikes to help build a strong community of park advocates and outdoor recreation enthusiasts that can help ensure state parks have a healthy, sustainable future.

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CHAPTER FOUR

SUMMARY AND MANAGEMENT IMPLICATIONS

Despite its popularity, the First Day Hikes initiative has never been formally evaluated and little is known about hikers, their motivations for participating, and the broader impacts of the experience. To answer these questions, our study synthesized data from 1,934 hikers using field surveys and follow-up web surveys (n = 584 from that larger sample) in three of the more popular First Day Hike states, Georgia, South Carolina, and Massachusetts. Post-hike feedback from participants was collected in June and July 2016 and highlighted positive and negative aspects of the hikes, assessed broader program impacts, and identified potential opportunities for improvement in future years. The following summary, management implications, and suggestions represent a synthesis of quantitative data and participant comments. It should be noted that the vast majority of respondents were pleased with their First Day Hike experience and intended on participating again in the future. Though only three state park agencies were sampled, these implications could likely be applied to other park programs sharing similar characteristics and day hiking in general.

Key Findings

Who are the first day hikers?

The results of this study indicate that the majority of First Day Hikers are White/Caucasian and highly educated, with most having a college degree or advanced

degree. Most respondents were experienced hikers, but the hikes did attract a few first-timers. While First Day Hikes might not be attracting many new people to outdoor recreation, they are getting outdoor recreationists to visit new parks that they have not visited previously. Unlike many state park programs that tend to attract families and children, First Day Hikes seem to attract diverse audiences from a wide range of age groups. While about half of participants were hiking with their family, many were hiking with friends or a combination of both. There also were many solo hikers, some of whom commented that were motivated to participate by the sense of community stemming from the presence of other hikers.

First time hikers tended to travel shorter distances and were more likely to be from the same ZIP code as the state park they visited. For first-time hikers, distance to a recreation area remains one of the most common constraints for outdoor recreation participation (Shores, Scott, & Floyd, 2007). The results from this study illustrate that in order to attract new people to participate in an outdoor recreation activity, constraints such as traveling distance need to be addressed. Furthermore, it should be emphasized that the majority of the First Day Hike participants lived within 30 miles of the state park they visited, supporting previous research that state parks are particularly important for local communities (Karieva, 2008; Pergams & Zaradic, 2008). Hikes that foster stronger connections to place particularly for locals, may be more likely to generate repeat visitors.

Why do people hike?

The hiking motivation reported by the largest number of respondents was exploring outside and enjoying time in nature. Frequent positive experiences in nature, such as hiking, can build connections between people and the natural world can counteract the effects of nature-deficit disorder (Louv, 2005). The second and third most popular motivations among First Day Hikers were trying something new and New Year's Day, which are directly related to the timing of the program and the idea of transformation and a fresh start. Spending time with others was also an important motivator for participants, with many hikers mentioning their family, friends, or social groups as their main motivation for participating in a First Day Hike. Multiple studies have shown that social interaction is one of the most important motivators for hiking and other forms outdoor recreation (Whiting et al., 2017; Kim et al., 2015; Cronon, et al., 2009). This was especially true for hikers with children, who were significantly more likely to be motivated to participate in order to spend time with family.

Compared to other groups, first time hikers were more likely to be motivated by trying something new and exercising and improving their health. This finding suggests that health promotion may indeed be a gateway to hiking and other nature-based activities for new recreationists (Seltenrich et al., 2015). Racial and ethnic minorities were more likely to be motivated by New Year's Day and improving their physical health. These findings are consistent with other studies which found that African Americans showed greater representation in leisure when it included sports or fitness,

social activities, and non-nature-based activities (Whiting, et al., 2017; Shinew, Floyd, & Parry, 2004).

What are the benefits and broader impacts associated with the hikes?

Although hikers had many different motivations for attending a First Day Hike, most experienced similar benefits from their experience. The top two benefits recognized by hikers were *explore the natural world around me* and *develop positive views of nature*. This is particularly important as there appear to be links between recreation participation and environmentalism (Larson, Whiting, & Green, 2011; Wells & Lekies, 2006). Perhaps increased hiking participation could help to foster conservation values and stewardship behaviors within a U.S. population increasingly detached from nature. Interestingly, more racial and ethnic minorities listed *explore the natural world around me* as their most important benefit when compared to other groups, even though it was not one of their top motivations. Studies have shown that nature motivations and park visitation are lower among African Americans and other groups (Whiting et al., 2017; Bowker, Green, & Cordell, 2007). But, perhaps after trying different types of outdoor recreation activities such as hiking, individuals may overcome barriers to participation and forge new connections to nature.

The next most recognized benefits were *exercise and improve my physical health* and *rest, relax, and reduce my level of stress*. It seems that many hikers recognize that unique physical and psychological health benefits that parks provide (Hartig et al. 2014; Larson et al., 2016). First time hikers also listed *exercise and improving my physical*

health and *trying something new and exciting* as the most important benefits from their First Day Hike experience. If first time hikers begin to acknowledge the health benefits of time in nature, this could lead to more outdoor recreation participation in the future. The psychological health benefits of nature are also well documented, with time in nature improving mental cognition for both children and adults, as well as overall mental health by reducing stress levels (Bratman, Hamilton, & Daily, 2012; Taylor, Kuo, & Sullivan, 2001). Increasing awareness of these benefits could help to foster a happier and healthier population via hiking and other forms of nature-based recreation.

One of the most important benefits to hikers was *spending time with family*. Parks provide important social benefits by offering opportunities for interaction with the broader community as well as with family and friends (Ginsburg, 2007; Bedimo-Rung et al., 2005). Racial and ethnic minorities were significantly more likely to recognize the benefits of *spending time with friends*, which is consistent with many participants' motivations prior to their hiking experience and consistent with existing literature (Whiting et al., 2017; Stodolska, Shinew, Floyd, & Walker, 2014). Hikers with children were more likely to recognize the benefit of *spending time with family* and also were more likely to list it as the most important benefit of their First Day Hike experience. Future research should continue to investigate the motivations of hikers and the benefits associated with hiking, helping managers to understand broader impacts and implications for recreation, health, and park management.

After attending a First Day Hike, the majority of participants indicated that they were interested in attending future First Day Hikes as well as other organized hikes at

state parks. In the six months following their First Day Hike, most participants saw increases in their state park visitation hiking frequency. First time hikers and racial/ethnic minorities' hiking participation increased significantly when compared to other all hikers. The demographic composition of the U.S. is shifting and minority groups will soon no longer be in the minority (United States Census Bureau, 2010). While minority participation is underrepresented in nature-based outdoor recreation (Whiting et al., 2017; Stodolska, Shinew, Floyd, & Walker, 2014), the results of this study indicate that after overcoming the initial obstacle of attending a program or hiking for the first time, first-time recreationists may be more inclined to participate in these activities on their own in the future.

When asked about their conservation behaviors following their hike, most participants were “talking to others about park-related issues” and “working to make my yard or my land more desirable for wildlife.” More than half of respondents also said they made financial contributions to support parks and many were influenced by their hiking experience. These numbers might not sound impressive, but when one considers the entire population of First Day Hikers this equates to tens of thousands of individuals who would be willing to make financial contributions to parks after their First Day Hike.

The results from this study illustrate that First Day Hikes are one potential management strategy that can help to combat these constraints to outdoor recreation, foster positive interactions between humans and nature, and address consequences associated with nature-deficit disorder (Weiler, Moore, & Moyle, 2013).

Management Implications

Hiking is consistently ranked as one of the most popular recreation activities and one that continues to grow (Outdoor Foundation, 2016), yet few studies have focused on the motivations and benefits experienced by casual day hikers. Though First Day Hikers represent a unique subset of this “day hiker” category (i.e., those that gravitate towards a special event), their preferences and behaviors can still offer much needed insights into those of day hikers in general. Our research helps fill an important gap for outdoor recreation managers by providing information about their current audience and the reasons people hike, which could help to inform strategic communication and subsequent recreation participation across diverse audiences. By understanding recreation preferences and reasons why people come to a hiking program, future programs can be designed and marketed to focus on outcomes valued by different groups of potential participants (Hill, Goldenberg, & Freidt, 2009; Manfredi et al., 1996)). This study of First Day Hikers shows that people are motivated to hike for many different reasons, ranging from connecting with nature and social interaction to physical and mental health. Different subgroups of hikers (e.g., first time hikers, racial/ethnic minorities, groups with children) are driven by different motivations. Because of this, managers should offer variable hikes and hiking environments that appeal to specific users and their personal interests and goals.

Our study revealed that while First Day Hikes are popular for many different reasons, but their overall value revolves around connections to nature and connections to family and friends. Many participants also viewed hikes as a way to try something new

and exercise and improve their health. For many hikers, the First Day Experience also appeared to influence support for parks and conservation, including behaviors such as talking about park-related issues or donating money to support parks. All of this suggests the broader impacts of the hikes may extend beyond the single day hiking experience. Even though First Day Hikes already impact many people in many ways, results of this study suggest the power of this uniquely popular initiative could still be expanded and enhanced. Specific recommendations for future First Day Hike programming and research include:

1. **A more targeted emphasis on marketing toward and recruiting first-time hikers.** First Day Hikes have a unique potential to inspire “new” recreationists, but demographic results from this study suggest that is not currently happening on a large scale. While the sample of first time hikers was small, they valued that their First Day Hike was a new and exciting experience as well as one that got them exercising. These hikers tend to be looking for a hike that is moderately challenging – they want to feel a sense of accomplishment after their experience. The key for this group is finding the right balance of difficulty without resulting in discouragement. For the first-time hikers who attended the hikes, the experience appeared to have a significant positive effect on their future hiking participation.
2. **Expanded efforts to attract youth and families with younger children** by offering easier walks and providing additional activities. Hikes could have elements geared towards younger audiences such as scavenger hunts and stations

with different activities for more hands-on exploration. Perks and incentives such as food, treats, and mementos make the experience special and transform it into an event that can become a holiday tradition for years to come. After attending a First Day Hike, youth saw increases in their physical activity outdoors and families with children visited significantly more state parks.

3. **Enhanced engagement with minority communities**, who are underrepresented in outdoor recreation in general and extremely underrepresented on First Day Hikes. This might require offering more hikes in diverse park settings near urban centers (most participants selected hikes close to home) and promoting the social aspect of this program which was an important benefit for minority participants. Parks should also emphasize the novelty of this type of health-oriented, nature-based New Year's Day resolution. Hikes of moderate difficulty that provide a physical challenge along with a novel social component – hot drinks and food, a beach bonfire, etc. would likely be more appealing to diverse audiences. For the racial/ethnic minorities who attended the hikes, the experience appeared to have a significant positive effect on their future hiking participation.
4. **More strategic approaches to crowd control** are needed, particularly as hike popularity increases. Some hikes (especially in Massachusetts) already exceed 100 participants, and those numbers are projected to grow in future years. Multiple co-hike leaders distributed throughout the group would help participants hear the interpretive message and allow for more active engagement and questioning. Extremely large groups could be split by those who identify as faster

or slower hikers, or by those who are looking for exercise and those who are hoping to learn. Another option could be pre-registration for the program or a small participation fee, but these would both limit involvement which may detract from the goal of the experience.

5. **Continued engagement after the hike** would appeal to many participants and could build off of the First Day Hike program. This engagement could be through a monthly hiking program, such as a First Saturday Hike, or larger scale events to offer an opportunity for group hiking throughout the year. Some respondents saw increases in their hiking activity following their First Day Hike, but more could be done to expand these effects.
6. **Find ways to convert hikers into park advocates.** Volunteers are a crucial element to the success of America's State Parks, and they can also serve as hike leaders for First Day Hikes. Yet few respondents said they were engaged with park organizations or volunteering in state parks, and the current influence of First Day Hikes on these behaviors appeared to be relatively weak. Parks could use this experience as an opportunity to recruit more people to volunteer in state parks and help with other programs in the future. At the First Day Hike event, parks could showcase different volunteer opportunities at their site (e.g. naturalists who share information with the public, citizen scientist projects, invasive species removal, etc.) and have current volunteers on-hand to talk with participants about the integral role they play in the park's success.

- 7. Future research could consider challenges and opportunities associated with First Day Hike implementation and impacts in other states.** An expanded research agenda would provide additional insights to help inform future management and marketing of hikes, helping to ensure that all people have the potential to benefit from this unique experience.

The nearly unprecedented success of the First Day Hike initiative cannot be disputed, but efforts to address the recommendations noted above could make the program even more effective and impactful. However, as the popularity of the First Day Hike program continues to increase, it may also generate negative consequences for both participants and managers. On the most popular hikes, crowd control and negative interactions with other visitors were often cited as the least liked aspect of the experience. If these problems persist, visitor experiences in the program may deteriorate. For managers, there are concerns about the logistical challenge of staffing an event on a holiday and providing enough staff and volunteers to provide a quality interpretive experience to hundreds of hikers. Environmental degradation is also a growing concern. Ecological impacts associated with hiking are well documented (Pickering et al., 2010; Cole, 2004; Lynn & Brown, 2003), making sustainable use of trails – particularly in the vulnerable winter season – a major challenge. For managers, First Day Hikes often present a dilemma: the benefits of high visitation during the off-season and potentially positive effects for participants experiencing the program, and the costs of logistical stress, staffing challenges, and the risk of excessive resource degradation. These tradeoffs should be considered in future First Day Hike management.

Results from this research contribute new information to the scant literature based focused on hiking. However, the study also revealed a future research opportunity. This investigation, which attempted to formally assess the success of a free park event, highlights a major gap in the assessment of park-based programming. There are many free programs offered across the US with the goal of attracting new recreationists (e.g. the National Park Service's "Every Kid in a Park" program), but few have been systematically evaluated in way that considers both inputs (e.g., participant demographics, preferences) and impacts (e.g., perceived benefits, behavioral change). Future research should investigate these programs, as it is critical for managers to understand their park-based offerings to enhance programming and determine if these events support their desired outcomes.

APPENDICES

Appendix A: Field Survey

First Day Hikes – Participant Questionnaire

We're so glad you're joining us for a First Day Hike! Before we head out, please take a minute to answer the following questions. Your responses will help our team (state park staff and researchers at Clemson University) learn more about First Day Hikers.

1. Which of the following "firsts" apply to you today? (Check ALL that apply.)

- First time in THIS park? First time in any state park? First time hiking First time on a First Day Hike?

2. How did you learn about this First Day Hike? (Check ALL that apply.)

- Word of mouth (family, friends, etc.) TV Radio Newspaper/magazine
 Social media (Facebook, twitter, etc.) Pre-event promotion at this or another state park
 Websites (which websites: _____)
 Email lists (from what sources: _____)
 Other sources (please specify: _____)

3. Why did you choose to go on this First Day Hike? (Please write answer in space below.)

Before you hit the trail, please TURN OVER this card and tell us a little more about yourself and your hiking group today.

4. What best describes the group you are with today? (Check ONE.)

- Just me Friends Other (please specify): _____
 Family Family and friends _____

5. How many adults and children are in your group today? (Write answers in spaces below.)

_____ adults (age 18 or older) _____ children (under age 18)

6. In what year were you born? Year: _____

7. What is your ZIP code? _____ **8. Your gender?** Female Male

9. Your race/ethnicity? (Check ALL that apply.)

- White/Caucasian Hispanic/Latino Black/African American
 Asian American Indian Other (specify origin): _____

10. We would love to learn more about your First Day Hike experience after you return. If you are willing, please provide your email address so we can send you a brief follow-up survey:

EMAIL: _____

Would you like to be on a mailing list about future events in state parks? Yes No

Thanks for taking the time to respond. Your input is important to us and will help to improve this hike and the park in the future. Enjoy your First Day Hike!

Appendix B: Implementation Instructions

2016 First Day Hike Study - Reminders for State Park Staff

What is the purpose of the study?

Despite the undisputed success of the First Day Hike phenomenon that is sweeping the nation, relatively little is known about the First Day Hikers themselves (who attends hikes and why) and the broader impacts of this experience on long-term outdoor recreation and environmental stewardship behavior. Our study will explore these questions in a two-phase research process that starts with a brief survey of all adult First Day Hikers (see details below) and ends with a more detailed follow-up (via email survey) with a subset of hikers. Information collected should help to inform the marketing and management of future First Day Hikes across multiple states.

How will hike leaders help with the study?

Before the Hike:

- **Hike leaders will receive a packet of pre-hike First Day Hikes Participant Questionnaires approximately 2 weeks prior to their First Day Hike(s)** on January 1. The questionnaire cards will be distributed to each hike site from the central state office.

On the Day of the Hike:

- **On the day of the hike, hike leaders will ask ALL adult participants (age 18+) to complete a questionnaire as part of the orientation process** (note that writing utensils may need to be provided). Participants will be told that these forms are part of a joint effort by the state park agency and Clemson University researchers to develop a better understanding of First Day Hikes (and hikers) around the country. They will also be reminded that their input, though voluntary, is much appreciated. **Remind participants that they should complete the front AND back of the cards.**
- People should be able to complete the questionnaire in 2 minutes or less. **Hike leaders will collect all of the pre-hike questionnaire cards prior to departing for hike.**

After the Hike:

- **After the hike, hike leaders will fill out a short First Day Hike Information Sheet with more details about the hike itself** (e.g., park, trail, distance, number of participants) **and attach this form to the participant survey cards for that particular hike.** If multiple First Day Hikes are offered at the same park, leaders will fill out a separate information sheet for each hike. This information about each hike will be used in analysis later.
- **Hike leaders will then return all of the data collected (the hike information sheet plus all of the corresponding participant response cards) to the state coordinator as soon as possible.** When submitting data, it is important to make sure that the First Day Hike Information Sheet remains linked/attached to the First Day Hike Participant Questionnaires associated with that particular hike.
- The coordinator will compile data from hikes across the state and send all of the information back to Clemson researchers for data entry and analysis by January 31, 2016.

Thanks in advance to all hike leaders for taking the extra time to help with this research effort!

If you have questions about the study or the implementation plan described here, please contact your state's First Day Hike coordinator or Dr. Lincoln Larson, the Clemson University professor who is partnering with state parks to lead this research effort (LRL@clemson.edu; cell: 919-724-2443; office: 864-656-1244).

Appendix C: Hike Information Sheet

First Day Hike Information Sheet

First Day Hike Leaders: *Please take a minute to complete this information sheet and return it with the stack of participants' pre-hike survey cards. Fill out a separate sheet for EVERY First Day Hike offered at your park, and make sure the details of the hike provided on this sheet remain linked/attached to the participant surveys.*

Park Name: _____

Hike/Trail Name: _____

Hike Departure Time: _____

Approximate distance of hike? _____ miles

Approximate duration of hike? _____ hours

What was the advertised difficulty of the hike? (*Check ONE.*)

Easy Moderate Strenuous

How many years has this hike been offered as a First Day Hike?

Not sure OR _____ years

What was the weather like at the start of the hike?

Approximate temperature: _____

Weather conditions (sunny, cloudy, rainy, snowy, etc.): _____

How many total hikers (adults and children) participated in today's hike?

Total participants: _____ (_____ adults age 18+, _____ children under 18)

Please add any additional comments about the hike (or the hikers) today in the space below.

Appendix D: Online Follow-up Survey

First Day Hikes Follow-up 2016

Introduction

Earlier this year on January 1, you participated in a First Day Hike and completed a brief survey card. State park staff and researchers at Clemson University are currently working together to learn more about First Day Hikers like you. We hope you'll take a few minutes to reflect on your experience and tell us about it. The information you provide in this survey will help state parks better manage and market First Day Hikes so this tradition can continue in future years. Your participation in this survey is completely voluntary, but we sincerely hope you will take a few minutes to answer our questions. Your responses will be kept confidential and will only be used for the purposes of this research study. Please indicate your consent to participate by clicking the NEXT button to begin the survey. Thanks in advance for your help!



Section 1. Your First Day Hike Experience

Q1 Was this your first year participating in a First Day Hike?

- Yes (1)
- No (Write number of years participating in First Day Hikes in the space below.) (2)

Q2 How satisfied were you with your First Day Hike experience this year?

- Very dissatisfied (1)
- Dissatisfied (2)
- Neither satisfied nor dissatisfied (3)
- Satisfied (4)
- Very satisfied (5)

Q3 What did you like MOST about your First Day Hike experience this year? (Please type your answer in the space provided.)

Q4 What did you like LEAST about your First Day Hike experience this year? (Please type your answer in the space provided.)

Q5 How likely are you to do the following things in the future? (Select one response for each item.)

	Very unlikely	Unlikely	Not sure	Likely	Very likely
Attend a First Day Hike (on January 1) (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Attend an organized state park hike at some other time during the year (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q6 Please state whether you DISAGREE or AGREE with the following statements about potential benefits associated with First Day Hikes. (Select one response for each item.)

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Exercise and improve my physical health (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Rest, relax, and reduce my level of stress (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Increase my quality of life (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Accomplish a New Year's resolution (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Spend time with family (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Develop positive views of nature (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Spend time with friends (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Try something new and exciting (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Carry on an important tradition (9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Explore the natural world around me (10)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q7 Which ONE of the potential First Day Hike benefits mentioned above do you value the MOST? (Select ONE response from the drop down menu.)

- Exercise and improve my physical health (1)
- Rest, relax, and reduce my level of stress (2)
- Increase my quality of life (3)
- Accomplish a New Year's resolution (4)
- Spend time with family (5)
- Develop positive views of nature (6)
- Spend time with friends (8)
- Try something new and exciting (9)
- Carry on an important tradition (10)
- Explore the natural world around me (11)

Q8 What suggestions do you have, if any, for improving the management and marketing of future First Day Hikes? (Please type your answer in the space provided.)

Section 2. Impacts of First Day Hikes

Q9 Did participating in a First Day Hike this year impact your life in any way? If so, how? (Please type your answer in the space provided.)

Q10 How often did you participate in the following activities BEFORE your First Day Hike this year? (Select one response for each item.)

	Never (0 times per year)	Rarely (1-2 times per year)	Sometimes (3-5 times per year)	Often (6-12 times per year)	Very Often (multiple times per month)
Visiting state parks (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Visiting national parks (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Visiting local or community parks (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hiking in any type of natural area (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Participating in other nature-based recreation activities (wildlife viewing, fishing, hunting, camping, etc.) (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q11 Since your First Day Hike back in January, have you visited a state park again?

- Yes (1)
- No (2)

Display This Question:

If Since your First Day Hike back in January, have you visited a state park again? Yes Is Selected

Q12A Approximately how many DIFFERENT state parks have you visited since January 1, 2016? (Select ONE response from the drop down menu.)

- 1 state park (1)
- 2 state parks (2)
- 3 state parks (3)
- 4 state parks (4)
- 5 state parks (5)
- 6-9 state parks (7)
- 10 or more different state parks (6)

Display This Question:

If Since your First Day Hike back in January, have you visited a state park again? Yes Is Selected

Q12B About how many total trips have you made to these state parks since January 1, 2016? (Select ONE response from the drop down menu.)

- 1 trip (1)
- 2-3 trips (2)
- 4-5 trips (3)
- 6-9 trips (4)
- 10 or more total trips (5)

Q13 Since your First Day Hike in January, which of the following best describes CHANGES in your participation patterns for the following activities? (Select one response for each item.)

	DECREASE in participation	No change	INCREASE in participation
Visiting state parks (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Visiting national parks (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Visiting local or community parks (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hiking in any type of natural area (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Participating in other nature-based recreation activities (wildlife viewing, fishing, hunting, camping etc.) (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q14 In the past 6 months... a) How often did you participate in the following behaviors? b) Did your participation in a First Day Hike influence your participation in these behaviors? (Mark TWO responses per item - one for each of these questions.)

	Participation Frequency					Influenced by First Day Hikes		
	Never (0 times per year)	Rarely (1-2 times per year)	Sometimes (3-5 times per year)	Often (6-12 times per year)	Very Often (multiple times per month)	Yes	No	N/A
Donated money to support local, state, or national parks (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Talked to others in my community about park-related issues (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Volunteered in a local, state, or national park (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Actively participated in a "Friends" group or other organization on behalf of a local, state, or national park (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Worked to make my yard or my land more desirable for wildlife (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Section 3. Youth and Nature

Q15 Do you have children under the age of 18?

- Yes (4)
- No (5)

If No Is Selected, Then Skip to End of Block

Q15 How often do your children participate in the following activities? (Select one response for each item.)

	Never (0 times per year)	Rarely (1-2 times per year)	Sometimes (3-5 times per year)	Often (6-12 times per year)	Very Often (multiple times per month)
Hiking in any type of natural area (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Participating in other nature-based recreation activities (wildlife viewing, fishing, hunting, camping etc.) (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q17 Did one or more of your children attend a First Day Hike with you this year?

- Yes (5)
- No (6)

Display This Question:

If Did one or more of your children attend a First Day Hike with you this year? Yes Is Selected

Q18 What did your children like most about their First Day Hike experience this year?(Please type your answer in the space provided.)

Display This Question:

If Did one or more of your children attend a First Day Hike with you this year? Yes Is Selected

Q19 Since your First Day Hike in January, which of the following best describes changes in your children's participation patterns for the following activities?(Select one response for each item.)

	DECREASE in participation	No change	INCREASE in participation
Hiking in any type of natural area (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Participating in other nature-based recreation activities (wildlife viewing, fishing, hunting, camping etc.) (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Display This Question:

If Did one or more of your children attend a First Day Hike with you this year? Yes Is Selected

Q20 What suggestions do you have, if any, for improving the First Day Hike experience for youth? (Please type your answer in the space provided.)

Section 4. Background Information

Q21 What is your gender?

- Female (1)
- Male (2)

Q22 What is the highest level of education you have completed?

- Some high school (1)
- High school or GED (2)
- Some college or technical school (3)
- Associate's or Bachelor's degree (B.A., B.S., etc.) (4)
- Graduate or professional degree (M.S., M.B.A., M.D., J.D., Ph.D., etc.) (5)

End of Survey

Thanks again for taking the time to respond. Your input will help as we work with state park agencies to improve future First Day Hike experiences, and your name will be entered into a drawing to win a free park pass in your state! If you have additional questions about this study, please contact Dr. Lincoln Larson, Department of Parks, Recreation, and Tourism Management, Clemson University, at 864-656-1244 or LRL@clemson.edu. Please click NEXT one last time to submit your survey responses.