GEORGIA STATE PARK STAKEHOLDERS' OUTDOOR RECREATION PREFERENCES, MOTIVATIONS, BENEFITS, AND PERCEIVED CONSTRAINTS BY SOCIAL AND CULTURAL DEMOGRAPHICS

by

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(Under the Direction of Gary T. Green)

ABSTRACT

The composition of the United States population is estimated to grow and become more diverse in the not-to-distance future due to the increasing number of racial/ethnic minorities. These potential dramatic changes in population composition present a significant challenge to the management of public lands. For instance, research suggests Hispanics and African Americans are less likely to participate in outdoor recreation activities than other racial groups (i.e., Anglos). Other studies have shown that Hispanics and African Americans have different preferences for outdoor recreation than those traditionally embraced by the White majority (Baas, Ewert, & Chavez, 1993; Cronan, Shinew, & Stodolska, 2008). Other studies suggest motivations influencing outdoor recreation participation differ by race/ethnicity (Kyle, Mowen, & Tarrant, 2004; Walker, Deng, & Dieser, 2001;). Differences between racial/ethnic groups are also seen in the perceived benefits outdoor recreation participation (Evans, 2007; Kocis, Kruger, Mazza, Lawrence, 2007). Recognizing the differences between preferences, motivations, and perceived benefits is important as many racial/ethnic groups encounter recreation constraints that affect their use of public lands. Public land managers are interested in better understanding the

recreational constraints of these groups in order to provide recreational services that more closely meet the needs of all their stakeholders. Subsequently, this study examined the outdoor recreation preferences, motivations, benefits, and perceived constraints of visitors, especially ethnic minority users, to three state parks in Georgia (i.e., Fort Mountain, Red Top Mountain, and Fort Yargo). The results of this study may prove useful to state park managers attempting to understand their clientele of racial/ethnic backgrounds. Results from this study may also influencing park management plans and the facilities and services they provide.

INDEX WORDS: Benefits, Constraints, Diversity, Ethnicity, Georgia, Motivations, Outdoor Recreation, Preferences, Race, SOPARC, State Parks, Survey

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CHAPTER 1

INTRODUCTION, DISSERTATION FORMAT AND LITERATURE REVIEW

Introduction

The United States population is forecasted to increase from 282.1 to 419.9 million between 2000 and 2050, and will become increasingly more diversified in terms of race and ethnicity (Ortman & Guarneri, 2009; Ennis, Rios-Vargas, Albert, 2011; United States Census Bureau, 2008). Many areas that were once populated homogenously with White individuals are now evolving into racially diverse communities. In fact, Census (2008) indicates that the growth rates of ethnically diverse groups will exceed the overall growth rate of the U.S. population over the next fifty years. In the past, African-Americans were viewed as the dominant ethnic group, after Whites, within the population. However, Hispanics/Latinos are now viewed as the fastest growing group in the nation, and in 2008, the Hispanic/Latino population surpassed 45 million and comprised fifteen percent of the U.S. population (United State Census Bureau, 2008). Census suggests that, in the next 30 years, over 80% of the nation's growth will be attributed to Hispanics/Latinos, Asian-Americans, and other ethnic minorities (Ennis, et al., 2011).

These impending dramatic changes in population demographics present a significant challenge for the management of public lands (Struglia & Winter, 2002). Of particular concern, is that public land managers might not be able to meet the outdoor recreation preferences of a rapidly diversifying nation. Additionally, little is known about the motivations to participate and perceived benefits of participating accrued by racial/ethnic groups in outdoor recreation (Cordell & Overdevest, 2001). Racial/ethnic minority groups are also significantly underrepresented, in

terms of overall visitation, to public lands (Abercrombie et al., 2008; Gobster, 1998; Payne, Mowen, & Orsega-Smith, 2002). This lack of representation suggests these groups may encounter outdoor recreational constraints that limit their activity participation on public lands. Public land managers are also concerned about where the next generation of stewards for natural resources and the environment will come from. This concern is exacerbated by the fact that the soon-to-be majority of the population is currently under utilizing or visiting public lands (MacIntosh & Wilmot, 2011; Solop, Hagen, Ostergren, 2003).

In terms of overall visitation, many public lands that provide outdoor recreation opportunities have experienced declining visitation and funding in the past ten years (Mowen, Payne, & Scott, 2005; Pergams & Zaradic, 2006). Along with this drop in visitation, many public land agencies have faced yearly decreases in their funding levels (Dolesh, 2008). In fact, due to additional budget cuts between 2008-2012, many public land agencies are now left with little option but to close some existing areas that are already operating with reduced staff and limited resources (National Conference of State Legislatures, 2010).

Visitation and funding for Georgia's state parks have mirrored many of the same challenges that the majority of outdoor recreation venues face on a national level. However, despite these fiscal challenges, state parks continually strive to be relevant and to provide quality recreation opportunities to their visitors. State parks have also been shown to be among the most beneficial and affective locations for people seeking outdoor recreation opportunities (Cordell, Betz, & Mou, 2011; Siikamaki, 2011). Subsequently, the need for state park managers to better understand the outdoor recreation preferences, motivations, perceived benefits and constraints of their diversifying racial/ethnic visitors is more crucial now then ever before (Li, Absher, Graefe, & Hsu, 2008).

Additionally, by examining how people recreate in natural areas, state park managers may be able to improve the facilities and services under their direction. State park managers may also be able to more precisely tailor specific opportunities (i.e., facilities and services) to certain segments of their population. Following this initiative, the Georgia Department of Natural Resources (GA DNR) attempted to identify the current recreational preferences and participation patterns of Georgians by conducted extensive research between 2005 and 2007 as part of their GA Statewide Comprehensive Outdoor Recreation Plan (GA SCORP). This report inventoried all existing GA DNR's public lands, facilities and services to ascertain how they were, or were not, meeting the recreational needs and preferences of GA DNR's users and to identify any unresolved user issues. The report highlighted that the Georgia Division of State Parks, Historical Sites and Monuments provides recreational opportunities to Georgians through the natural resources distributed throughout the state, which includes 42 parks and 18 historical sites. These sites range from smaller historical locations to large parks over 9,000 acres, and are distributed across the state. The state parks provide trails, lakes, picnic and camping areas that attract more than ten million people every year. The GA SCORP also identified the need for more diverse recreation opportunities for future populations.

Based on GA's demographic trends and SCORP, there is a clear need for Georgia's state park managers to obtain a more in-depth understanding of the diverse factors affecting outdoor recreation in Georgia. One way this may be accomplished is by examining groups' outdoor recreation activity preferences within Georgia state parks. This information may help managers to facilitate greater visitation to their resource areas, while also allowing them to better assess their present and future constituents.

In addition to understanding outdoor recreation activity preferences, state park managers may profit from identifying the motivations and perceived benefits that precede the formation of outdoor recreation preferences and affect activity selection. The motivations or desired beneficial outcomes that drive outdoor recreation participation are different for varying groups and can be affected by race/ethnicity (Csikszentmihalyi & Nakamura, 1989). Similar differences by group are seen in the perceived benefits obtained from outdoor recreation participation (Driver, 2008). Hence, for state park managers attempting to serve their clientele, these types of understanding can be critical. However, even though managers strive to serve all of their constituents, certain groups may still be under-represented or constrained in terms of their visitation and participation levels.

Understanding the perceived recreational constraints of visitors or potential visitors is of upmost importance to state park managers who are seeking to increase participation and optimize beneficial outcomes of visitors' experiences (Driver, 2008). By identifying, ameliorating, or removing recreational constraints, state park managers may be able to increase visitation and support for their parks.

However, while some researchers have identified variables affecting outdoor recreation behavior (i.e., outdoor recreation preferences, motivations, perceived benefits, and constraints), most of this research has been conducted at the national or macro levels. Subsequently, more research is needed to identify and understand these variables on a state park level in order to provide useful information park managers (Cordell, et al, 2011).

Dissertation Format

This dissertation highlights several aspects of the larger *Georgia State Parks (GASP) Diversity Project*, which was designed to address management goals and challenges within this

dynamic context. The project was guided by several key research questions:

- Who is visiting Georgia state parks? When? How often?
- Why are people visiting Georgia state parks?
- What benefits do Georgia state park visits provide?
- Why aren't people visiting Georgia state parks?

Although this dissertation focuses primarily on these questions, the *GASP Diversity Project* addressed all of the following topics:

- State Park Visitation
- Outdoor Recreation Participation (overall and within state parks)
- Motivations to Recreate (overall and within state parks)
- Outdoor Recreation Benefits (overall and within state parks)
- Physical Activity Levels of Adults and Children (overall and within state parks)
- Attachment to State Parks
- Constraints to State Park Visitation
- State Park Recreation Fees
- Suggestions for Improving State Parks & Management Implications

For more details regarding the topics not covered in this document, see Larson, Whiting, & Green (2012).

This dissertation is written in manuscript format. Chapter 1 introduces the study, summarizes previous research on topics relating to outdoor recreation participation preferences, motivations, perceived benefits, and constraints across diverse populations, and presents research objectives. Chapter 2 provides a detailed overview of the research methodology, a description of the overall sample, and a brief overview of data related to the general research topics. Chapters

3-5 are manuscripts that will be submitted for publication. Chapter 7 provides a concise description of conclusions and recommendations based on results of the overall project. Chapter titles are listed below:

- Chapter 1 – Introduction, Literature Review, and Dissertation Format
- Chapter 2 – Research Methods and Sample Overview
- Chapter 3 – Using the System for Observing Play and Recreation in Communities (SOPARC) to Assess Park Visitation Patterns in Georgia State Parks
- Chapter 4 – State Park Participation Preferences, Motivations, and Benefits Among Diverse Visitors
- Chapter 5 – State Park Visitation and Outdoor Recreation Constraints Among Ethnically Diverse Populations in Georgia
- Chapter 6 – Summary and Recommendations

Literature Review

Demographic Changes in the United States

The world population has grown exponentially during the past hundred years reaching one billion in the early nineteenth century. The population explosion continued as the second, third, fourth, and fifth billions were reached around 1930, 1960, 1975, and 1990, respectively (Wolf, 2002). Currently, the world population is over seven billion people and predicted to increase well into the twenty-first century (United States Census Bureau, 2012).

The U.S. population has experienced similar dramatic increases resulting in the current population of 312 million. The south and rocky mountain regions have experienced rapid growth associated with commerce, migration, immigration, and urbanization. For example, the United States Census Bureau (2008) reported an increase in the population over the past two decades

(22.2%), and suggested the southern region of the U.S. has surpassed the national average (32.5%).

Not only has the U.S. population grown dramatically, it has become more racially and ethnically diverse. According to the U.S. Census, minorities compose one-third of the U.S. population and are expected to be the majority in 2042 (MacKun, Wilson, Fischetti, Goworowska, 2011). Much of this predicted growth will result from the Hispanic/Latino population that is expected to triple, from 5.4 million to 19 million between 2008-2050. The African American and Asia populations are expected to contribute over 20% of the national population growth during this same period. The national population is also becoming increasingly older with more people being over 65 years old (Werner, 2011).

These demographic shifts in the U.S. population have been identified by researchers as playing a prominent role in park use and outdoor recreation patterns (Cordell & Overdevest, 2001). For example, the culture of the diversifying population affects the preferences and choices for desired park experiences. Park managers seeking to provide quality opportunities for visitors must recognize these differences in preferences of their diversifying constituency. This is particularly true for racial/ethnic minorities who often encounter constraints that limit their outdoor recreation participation.

State Park Trends

Many state managers aware of these population changes and their affects on parks are seeking new ways to efficiently monitor these changes and to identify who their visitors are and how they use their parks. One challenge facing managers are the increasing financial constraints that state parks across the nation are currently experiencing. Managers are also being pressured to have their parks become more cost efficient and revenue generating (National Conference of

State Legislatures, 2010). These budgetary challenges have already resulted in the loss of park staff, degradation of park equipment and facilities, and directly impacted levels of visitor satisfaction, return rates, and service quality (Thomas et al., 2000). Contributing to these budgetary cuts is the fact that state park visitation is often used as a key factor in determining annual park budgets. As a result of these challenges, the need for more valid and reliable data to help understand changing patterns in park visitation has become increasingly more vital for state park managers in their decision-making process (Eagles, 2002).

State Park Visitation

State park visitation has declined in recent years despite evidence suggesting visitation results in positive outcomes such as improved physical health and psychological wellbeing (Godbey & Mowen, 2011; Hoehner, Brennan Ramirez, Elliott, Handy, & Brownson, 2005; Pergams & Zaradic, 2006, 2008). Research has suggested several factors may contribute to the decrease in park participation levels. Louv (2006) suggested increases in technology affected the rising generation's visitation to parks. Louv identified cell phones, computers, television, and other idle forms of technology as culprits in decreasing park visitation.

Furthermore, of individuals visiting state parks, most are White. Racial/ethnic minorities are often under-represented in park settings because of a variety of limiting factors (Cutts, Darby, Boone, & Brewis, 2009; Stanis, Scheider, Chavez, & Shinew, 2009). Considering the changing population demographics, both current and projected, increasing state park visitation among racial/ethnic groups is becoming extremely relevant to park managers charged with making their facilities and services more relevant and available to a diversifying public.

State Park Estimation

To help increase state park visitation, managers need to first understand current visitation trends. Trend data includes understanding general visitor use patterns, such as desired activities, preferred locations, and basic visitor demographic information. As this understanding occurs, park managers may begin to appreciate what resources are being used to meet visitor preferences. Identifying these user patterns, however, is difficult to state park managers operating on limited budgets with reduced staff.

Conventional data collection strategies in state parks have included administering intercept and exit surveys and mechanically recorded vehicle counters (Darcy, Griffin, Crilley, & Schweinsberg, 2010). However, some of these measures are often unreliable, and provide extremely limited information to park managers and, subsequently, have influenced the call for better visitor statistics (Eagles, 2002). For example, exit counts alone do not provide information regarding visitors' preferences in park activity. Intercept and exit surveys, while more robust than exit counts, require trained staff to dedicate considerable time to collecting sufficient surveys in order to obtain samples of park visitation that will provide valid and reliable results (Vaske, 2008). Hence, the need for solid data, upon which sound management decisions may be made is crucial and often times unattainable for state park managers (Eagles, 2002). As a result, many park managers operating on reduced budgets struggle to identify visitation patterns that could tell them who their visitors are and what they want. Furthermore, state park visitation is often used as a contributing factor in determining annual state park budgets.

The System for Observing Play and Recreation in Communities

One strategy that has been implemented to gather data focusing on physical activity trends is the System of Observing Play and Recreation in Communities (SOPARC). Developed by McKenzie et al (2005), SOPARC was designed to "obtain observational data on the number

of participants and their physical activity levels during physical activity…in community environments" (McKenzie, et al., 2005 p. 2). Numerous studies have implemented this versatile system to measure the differences of physical activity preference by age, gender, cultural background, and the level or intensity of physical activity of individuals in local community settings (Cohen et al., 2007; Cohen et al., 2006; Floyd, Spengler, Maddock, Gobster, & Suau, 2008; Larson, Whiting, & Green, 2010). When using SOPARC trained observers code individual's physical activity levels (sedentary, walking, and vigorous), while scanning a pre-determined area. Also coded during the scanning process are age (senior, adult, teen, child), gender, and cultural background (Latino, Black, White, or Other), and environmental settings (location, supervision, equipment, and free play vs. organized activity). This standardized data collection strategy has been useful to park managers interested in gathering data on physical activity participation, but it could also become a valuable asset for the assessment of general park visitation trends.

The implementation of SOPARC on localized parks and community settings has been shown to be effective. For example, since its creation in 2005, several studies have used SOPARC as a systematic protocol for objectively measuring physical activity in community parks (Bocarro et al., 2009; McKenzie, Cohen, Sehgal, Williamson, & Golinelli, 2006a; Parra et al., 2010; Shores & West, 2008). The focus of applying SOPARC to localized community parks has been primarily to determine physical activity participation levels in parks. The feasibility of SOPARC on a larger, state park level remains relatively unexplored. While state parks represent a much smaller percentage of total parks in the U.S., the implementation of SOPARC could function in state parks as they provide areas that encourage outdoor recreation and physical activity. Therefore, the question of SOPARC's effectiveness, in this regard, is of interest to state

park managers who want to know more about their visitor demographics, activity choices and physical activity patterns. Furthermore, the reliability and validity of implementing SOPARC on a state park scale has yet to be examined.

Using SOPARC may provide advantages compared to traditional data collection strategies. For example, as an observational tool, SOPARC can be less intrusive to visitors than other data collection strategies. Similar to other strategies, SOPARC is labor intensive, however, it may be more affordable than other methods as greater amounts of basic visitation data can be gathered in shorter amounts of time (McKenzie, et al., 2006). The implementation of SOPARC may also improve the efficacy of park-based data collection as staff can be dually trained as employees, with regular responsibilities, and as SOPARC observers. This type of employee crossover may assist park managers in gathering data to better understand who their visitors are and their expected preferences.

This study uses research in three Georgia state parks to address two initial research objectives: 1) to examine a variety of data collection tools aimed at increasing understanding of state park user patterns in Georgia; and 2) to explore the specific potential of SOPARC as a versatile data collection tool in state park settings relative to more conventional strategies. In additional to providing a valuable baseline regarding state park use, assessments of SOPARC's reliability and validity relative to other established data collection techniques (e.g., intercept and exit surveys) should help state park managers determine if and when the instrument may be used to provide valuable information about their visitors.

Outdoor Recreation Participation

Outdoor Recreation Preferences

Results from the National Survey of Recreation and the Environment (NSRE) described population growth and diversification as it relates to changing preferences in outdoor recreation participation (Cordell, et al., 2011). Findings suggested a possible correlation with the shifting uses of land and water resources and the growth and diversification of the population. For example, while participation in many nature-based activities has increased during the past two decades, consumptive activities (e.g., hunting and fishing) have decreased in popularity as non-consumptive activities (e.g., bird watching and nature photography) have increased. Other participation preferences suggest a growing interest in water-based activities as over 60 percent of the U.S. population participates in swimming, visiting beach areas, kayaking, canoeing, and rafting in the past year (Cordell, et al., 2004, Jennings, 2007). Likewise, preferences for adventure-based activities such as rock-climbing, snow skiing and boarding, and backpacking have increased in recent years (Ewert, 2011).

Participation in outdoor recreation is also influenced by socio-demographic variables such as race/ethnicity (Chavez, 2002, 2007; Cordell, et al., 2004; C. Johnson & English, 2007). As a result, studies frequently examine the preferences of racial/ethnic minority groups involved in outdoor recreation. For instance, one study examined the physical activity preferences of Latino visitors to outdoor recreation areas (Burk, Shinew, & Stodolska, 2011). Findings from this study confirmed previous research suggesting racial/ethnic minorities (Latinos in this case) experience lower rates of physical activity in their leisure time than other groups and therefore may suffer from higher rates of obesity and other diseases associated with the lack of activity (Centers for Disease Control and Preventions, 2010). This lack of physical activity participation

was particularly true of Latino women who spent significantly less time walking than Latino men each day. Latinos also preferred engaging in physical activity in an outdoor environment over established indoor locations (Burk, Shinew, & Stodolska, 2011).

In addition to investigating the physical activity preferences of racial/ethnic minorities, research has examined other types of outdoor recreation participation preferences such as: site amenity and site attribute preference, activity preferences, social group preferences, and pay preferences. Research indicates that certain populations prefer to recreate in larger groups with more children such as Latino visitors that often include friends and extended families in their outdoor experiences (Gobster, 2002; Stodolska, Shinew, & Li, 2010). For these populations, picnicking tends to be an all day event that includes onsite preparation of several meals (Carr & Chavez, 1993). Similarly, African Americans often prefer to experience outdoor recreation in groups with multiple people. Their desire for established natural areas that are also well lit may relate back to collective memories of hardships and violence endured by their ancestors in wildland settings (Johnson & Bowker, 2004).

Participants of many racial/ethnic groups prefer to spend their leisure time outdoors, however, research has suggested certain motivational differences exist between racial/ethnic groups (Walker, Deng, & Dierser, 2001). Hence, understanding outdoor recreation activity preferences can assist managers in being aware of the motivating factors affecting different populations.

Outdoor Recreation Motivations

Outdoor recreation preferences are often influenced by the motivating factors that drive participation. These factors can include themes of challenge, exploration, experiencing nature, relaxation, and social contact (Driver, 1977; Kauffman & Graefe, 1984; Knopf, Peterson, &

Leatherberry, 1983; Lee, Graefe, & Li, 2007; Williams, Schreyer, & Knopf, 1990). Examining these types of motivations can help promote provide theoretical and empirical approaches to segment attitudes and behaviors of individuals who participate in outdoor recreation activities. Furthermore, understanding participant motivations can provide positive outcomes and ensure the least possible conflict between recreational users while maximizing human benefits (Manfredo, et al., 1996).

Early motivational theory research suggested recreation experiences could be viewed as behavioral pursuits that resulted in the achievement of physical and psychological goals (Driver & Tocher, 1970). From this conceptualization, the recreation experience was a series of psychological outcomes that were desired as a result of participation (Driver, 1976; Driver & Brown, 1975). Subsequently, motivational theory research explains why people participate in recreation activities and offers insight into how involvement might benefit each individual (Manfredo, et al., 1996). These early insights were used by management attempting to understand how factors of motivation affected their constituents' activity choice and setting preference. Managers attempted to single out the experiences their constituents desired and believed this process of clarification "could be used in a wide array of planning and management tasks such as clarifying supply and demand, developing management objectives, avoiding conflict, and identifying recreation substitutes" (Manfredo, et al., 1996 p. 190).

This process of structured consideration guided recreation programming during the 1970s and eventually brought about the creation of the Recreation Opportunity Spectrum (ROS) and Recreation Experience Preference (REP) scale (Driver, 1977; Driver, Brown, Stankey, & Gregoire, 1987). These typologies provide managers with an array of recreation opportunities for consideration when planning. The typologies take into account factors such as settings, activities,

personnel, concepts of interest, needs, and preferences. More importantly, the tools are often used in coordination with motivational theory when considering recreational programing.

In addition to using motivational theory, and ROS framework and REP scale, management also historically examined expectancy-value models developed by Lawler (1973). In an effort to understand participation in outdoor recreation, Lawler (1973), suggested specific behaviors resulted from individual's desire to satisfy specific needs. Lawler's research investigating motivation within organizational behavior suggested that motivation could be seen as different types of expectations. Expectations were framed as terminal and instrumental.

Terminal expectations were considered valued long-term goals (e.g., social recognition, family solidarity, high social affiliation) (Manfredo, Driver, & Tarrant, 1996). Instrumental expectations refer to the relationship between effort (e.g., absentee rate, production rate) and performance outcomes (e.g., more pay, more praise) which, then lead to the instrumental expectations (Kyle, Absher, & Hammitt, 2005). Hence, the expectancy-value model was considered by managers a process directed toward logical programming that allowed them to view motivation to participate in outdoor recreation activities as way to meet certain physical and psychological needs (Kyle, et al., 2005).

Today, recreation managers still use the ROS framework and the REP scale and strive to consider the motivations and expectations that participants have for participating in certain outdoor recreation activities. Understanding that race/ethnicity directly affects motivations and value-expectations of participants can be information of great worth to managers striving to meet the needs of a ever diversifying public.

Outdoor Recreation Benefits

The motivations that influence individuals to pursue recreation activities are often a direct result of the desired benefits individuals seek from their participation. Benefits from outdoor recreation participation can be classified into two types: tangible and intangible. Tangible benefits can include physical health and economic impact from tourism related activities in local communities (Kocis, 2007). Intangible benefits, however, are viewed as internal factors such as stress reduction, social, spiritual, and psychological improvements (Driver, Brown, & Peterson, 1991; Ulrich et al., 1991). Many management tools focus on the tangible benefits of outdoor recreation (e.g., REP and ROS). Subsequently, benefits like physical fitness and children interacting with nature are the focus of much research that suggests the importance of outdoor recreation in the lives of adults and youth alike (Centers for Disease Control and Preventions, 2011; Godbey & Mowen, 2011; Louv, 2008; Stodolska, et al., 2010). Likewise, similar lines of research emphasize the negative repercussions of not engaging in outdoor recreation, such as decreased mental and physical health and low test scores in children (Louv, 2008; Walker & Virden, 2005). While these tangible benefits are often visible and the topic of much research, there remains a need to examine the intangible benefits and how activities affect visitors' experiences and associated benefits.

While the concepts of recreation preferences, motivations, and benefits are often viewed in the same realm, they are not equal because receiving benefits directly depends upon the quality of experience relative to the participants' expectations (Arlinghaus, 2006; Manning, 1999). Siikamaki (2011) examined the U.S. state park system and found state parks have a robust positive effect on participation in nature recreation. Using nationwide recreation data Siikamaki

found all state parks annually generate an estimated 33% of all nature recreation, suggesting state parks hold a unique position in providing outdoor recreation benefits.

Subsequently, understanding the benefits of outdoor recreation participation is a necessary part of forming critical decisions related to park management. Given the changes in the composition of the U.S. population, research has asked the question, do individuals from different racial/ethnic groups seek different recreation opportunities and benefits (Kocis, 2007)? A paucity of research has examined this inquiry, particularly as it relates to outdoor recreation in state parks. Research suggests many racial/ethnic groups are unable to experience the benefits associated with outdoor recreation because they are often confronted with constraints that limit their participation. For example, research suggests a lack of parks in the low-income neighborhoods prevents many racial/ethnic minorities from accessing the benefits associated with outdoor recreation (Sherer, 2005).

Constraints

Early research in constraints was driven by leisure providers and practitioners that were "expected to remove barriers to leisure participation and facilitate the obtaining of satisfactory leisure experiences" (Iso-Ahola & Mannell, 1985 p. 111). Therefore, early research in this area was management-based and descriptive in nature rather than explanatory, which resulted in many ridged assumptions that have evolved during the last thirty years (Walker & Virden, 2005). For example, early research commonly referred to the term "barriers," however, it was suggested that the word failed to capture the entire range of reasons for behaviors such as leisure nonparticipation and ceasing participation (Jackson, 1988). For this reason, the term "constraint" was subsequently used in an effort to broaden the focus of constraints research.

As the volume of different constraint items studied grew it became difficult for researchers to arrive at a general consensus in regards to the conceptual distinction of constraint types. While many studies suggested a dichotomous relationship existed between the types of items encountered, there was a dilemma in attempts made to collectively classify constraints in a unified consensus. For example, Francken and Raaij (1981) suggested that concepts could be classified into two categories of internal or external constraints. These authors suggested that internal constraints could be viewed as individual attributes such as abilities, interests, knowledge, and personal capacities; whereas, external constraints were viewed primarily as characteristics of the environment, such as circumstances, lack of facilities, geographical distance, and lack of money and time. Other authors, however, suggested that, while they supported the internal/external constraint dichotomy, or other similar constraint relationships, they categorized items differently (Boothby, 1981; Searle & Jackson, 1985). This early lack of uniformity and the difficulty of classification was described by Jackson (1988) as being "both troublesome and arbitrary" (p. 204).

Since the early studies involving constraints to leisure participation were conducted, the concept evolved into a significant subfield of leisure studies. This evolution was influenced by several prominent studies, published in the late 1980's, which re-conceptualized barriers to leisure participation and brought about what is currently referred to as the study of leisure constraints. In summarizing previous research, Jackson (1988, 2005) suggested that past changes were brought about as increasingly sophisticated theorizing called for more complex empirical research. The theoretical findings of many research studies were built upon by more vigorous studies as several broad generalizations about leisure constraints were brought to light. Mainly, researchers realized that different influences, in addition to the existing types of leisure

constraints, dealt more with preferences for certain activities over actual participation or the lack thereof. These early generalizations and concepts began to be challenged as researchers continued to study participation and nonparticipation in leisure activities. Among these challenged concepts were the assumptions that "constraints are immovable, static obstacles to participation" and "the most significant effect of constraints on leisure is to block or limit participation" (Jackson, 2005 p. 3). These assumptions did not account for the way in which constraints may affect the preferences of the individuals involved. Hence, researchers began expanding the existing constraints paradigm by questioning pre-established theoretical concepts in regards to constraints research.

During this time, the language used in research changed as well. As previously mentioned, the change in terminology signified inadequate conceptualization and shifted researchers out of what had become a restricted paradigm within the subfield of leisure studies. Under this new focus, constraint research continued to evolve and become more insightful in the early 1990's as research within the social sciences began to apply more qualitative methods to issues, which, up until that time, had primarily been studied using quantitatively-based survey designs (Jackson, 2005). The addition of qualitative research methods, coupled with strong scholarly debate about the relevancy and value of studying leisure constraints, further broadened the subfield to include the following conceptual topics of leisure constraints research: gender, race, ethnicity and immigration, adolescents, age, cultural, time, and outdoor recreation.

Despite the variety and lack of classification in the multiple focuses of constraints research during the early 1980's, Crawford and Godbey (1987) further conceptualized suggesting that constraints could only be understood through the broad context of the relationship between preferences and participation. The authors also argued that constraints enter this relation not

solely by intervening between a preference for an activity and participation in that activity ("structural" barriers), but also in two other important ways: by their influence on preferences and by their affects on preferences and participation (Crawford, Jackson, & Godbey, 1991). Hence, Crawford, Jackson, and Godbey (1991) proposed the following three categories of constraints exist: structural, intrapersonal, and interpersonal (Figure 1.1). The following is a brief description of these constraints.

Structural Constraints

Structural constraints are factors that are seen to come between leisure preferences and actual participation. Examples include family life-cycle stage, lack of family financial resources, season, climate, the scheduling of work time, availability of opportunity, and reference group attitudes concerning the appropriateness of participating in the leisure activity in question (Crawford & Godbey, 1987).

Intrapersonal Constraints

Intrapersonal constraints are described as occurring before leisure preferences are formed. These constraints deal with individual psychological states that focus more on the affect on leisure preferences than actual participation. Examples of intrapersonal barriers include stress, depression, anxiety, religiosity, kin and non-kin reference group attitudes, prior socialization into specific leisure activities, perceived self-skill, and subjective evaluations of the appropriateness and availability of the leisure activities in question.

Interpersonal Constraints

Interpersonal constraints are socially based. These factors relate to the relationship between individuals' characteristics and "may interact with both preference for, and subsequent participation in, companionate leisure activities" (Crawford & Godbey, 1987 p. 123). Crawford

and Godbey (1987) suggest that these social factors are relevant when an individual is unable to locate a suitable partner who desires to participate in the leisure activity. Therefore, the lack of friends and/or family who prefer similar leisure activities can be seen as interpersonal constraints.

Crawford and Godbey's (1987) model of conceptualizing constraints was widely accepted, however, the items in the model (i.e., structural, intrapersonal, and interpersonal constraints) were said to be static and not process oriented and were therefore theoretically disconnected. In light of this, Crawford, Jackson, and Godbey, (1991) produced a hierarchal model from the original factors in an effort to further theorize constraint research. In their model, the authors argued that the original constraints to participation were overcome sequentially and not in a static fashion as previously thought. They suggested that intrapersonal and interpersonal constraints typically occurred before structural constraints and were therefore, more prominent and important in their revised model (Crawford, Jackson, & Godbey, 1991).

From the hierarchal model the evolution of constraints literature continued as Jackson, Crawford, and Godbey (1993) attempted to integrate and further conceptualize the updated hierarchal model. These authors proposed several statements that explained how the constraints model functions (Jackson, et al., 1993). The main concept in their research was to bring to light that most of the past constraints research had suggested that constraints consisted of insurmountable obstacles to leisure participation. Jackson, Crawford, and Godbey, (1993) rejected the previous assumption that when individuals are confronted with a constraint the outcome will be nonparticipation. Instead, they posed an alternative view in which individuals are able to negotiate or modify their participation instead of completely foregoing participation. Their study accomplished this by showing research that suggested the different strategies used by

individuals who encounter constraints and are able to overcome them by modifying or adapting their plans in a way that enhances participation (Jackson, 1991; Jackson, Crawford, & Godbey, 1993; Jackson & Dunn, 1991; Jackson & Rucks, 1993; Kay & Jackson, 1991). Examples of negotiations implemented by individuals include "rearranging schedules, spending priorities, and other aspects of their lives to accomplish their leisure-related goals" (Jackson et al., 1993 p. 133).

In describing the negotiation process, Crawford and Godbey (1993) suggested six specific propositions concerning the relative success individuals have in negotiating constraints. They are as follows:

1. Participation is dependent not on the absence of constraints, but on negotiation through them. Such negotiation may modify rather than foreclose participation.
2. Variations in the reporting of constraints can be viewed not only as variations in the experience of constraints, but also as variations in success in negotiating them.
3. Absence of the desire to change current behavior may be partly explained by prior successful negotiation of structural constraints.
4. Anticipation of one or more insurmountable interpersonal or structural constraints may suppress the desire for participation.
5. Anticipation consists of not simply the anticipation of the presence or intensity of a constraint, but also the anticipation of the ability to negotiate it.
6. Both the initiation and the outcome of the negotiation process depend on the relative strength of, and interaction between, constraints on participating in an activity and motivations for such participation.

Constraints and Race/Ethnicity

Shinew and Floyd (2005) suggest that a complete understanding of constraints, as experienced by African Americans, must begin with knowledge of other relevant trends where the disparities and racial inequalities between the predominantly White population and African Americans have exhibited noticeable challenges since the civil rights era. The authors suggest these trends and challenges of inequality are evident in income, educational attainment, labor force participation, residential segregation, and interracial integration. The authors explain that these factors can "shape the context for how African Americans experience and negotiate constraints" (Shinew & Floyd, 2005, p. 39). For example, national and historical trends in these areas show that when compared to Whites, African Americans have not experienced the same opportunities in education and employment, which results in lower income levels for African American families. In this example, these inequitable opportunities are manifested in constraints for African Americans, as they are unable to participate in leisure activities due to the lack of resources, which enable other, more affluent, privileged groups of the population the ability to experience recreational activities and negotiate constraints as they arise. Therefore, by understanding issues of racial inequality, researchers may gain valuable insight into constraints encountered specifically by African Americans. Up to this point, however, little research has been able to coalesce the constraints theory with those employed in racial and inequality studies (Floyd, 1998). A stronger focus on merging these two areas together would likely result in deeper understanding of both constraints and racial issues.

One of the first studies concentrating primarily on issues surrounding constraints and race was Washburn's (1978) study of a Californian, urban-based African American community investigated racial difference in leisure participation and behavior. From this study two

prominent concepts of ethnicity and marginality were presented as explanations affecting African American participation in recreational activities. Washburn describes *ethnicity* by refuting traditional assumptions about African Americans in American society. The study suggests that African Americans possess a true and distinct ethnic background by"maintaining their integrity and their independence from mass culture as the debilitating effects of poverty are slowly reduced" (Washburne, 1978, p. 177). Therefore, ethnicity, according to Washburne, is seen as a factor that directly impacts the leisure choices of African Americans. Hence, leisure patterns are highly dependent upon the value structures of the prevailing culture. Washburne (1978) elaborates "values are the symbolic content attached by a group to objects or concepts that may serve as predictors of behavior by that group within a sociocultural system that holds those values" (p. 177). For example, the values that African Americans and Anglos have for wilderness settings are to a large extend very different. Whereas Wilderness represents freedom and solitude for Anglos it can have negative connotations of servitude and violence for African Americans. Washburne (1978) uses the perspective of ethnicity as an alternative explanation for the marginality perspective, which holds socioeconomic discrimination as the main reason Blacks do not participate in certain activities. These two perspectives of ethnicity and marginality served as a launching point for constraints research involving racial and minority populations.

Another early, prominent study examining race issues that supported constraints concepts in its findings was Woodard's (1988) study examining a group of African Americans and their leisure participation in relation to their social class. Within the study, the author focused on discrimination, fear of race prejudice, coracialism (interacting socially with other African Americans), and criticism (from friends or family about interracial social interaction) as major

factors affecting recreation behaviors and participation (Woodard, 1988). The main perspective gleaned from Woodard's (1988) study was that perceived discrimination plays a significant role in constraint research.

From the Washburne (1978) and Woodard (1988) studies three main perspectives or theories (e.g., marginality, ethnicity, and perceived discrimination) were established that have subsequently been used to guide most of the research in the field since that time. Subsequently, over the past twenty years there have been several studies examining African American's participation in leisure activities (Finney, 2006; Johnson & Bowker, 2004; Shinew, et al., 2007; Worsely & Stone, 2011).

However, despite the dissemination of studies published in the area of race, inequality, and constraints, there have been critiques of both the three perspectives (e.g., marginality, ethnicity, and perceived discrimination) and the overall lack of consistent framework driving constraints research applied to African Americans (Floyd, 1998; Jackson & Scott, 1999; Shinew, 2005). Among these critiques comes the suggestion that constraints models must view racial categories separately instead of combining them with other measurement categories (Philipp, 1995). Others argue that a main limitation of the perceived discrimination perspective is that the concept is exploratory in nature and needs further theoretical development to discover the complete range of discrimination and how it relates to leisure behaviors (Floyd, 1998; Shinew, 2005). Shinew and Floyd (2005) pose there are several studies that support the argument of a lack of a viable theoretical framework in connection with race and constraints. They argue there has been a significant disconnect between studies of race and leisure constraints research. This may primarily be because of "African Americans experience and negotiate constraints under different sets of socioeconomic conditions" (Shinew & Floyd, 2005, p. 44). Therefore, a

purposeful theoretical framework for African Americans may prove useful in understanding the leisure constraints they experience.

In an attempt to provide guidance through the process of drawing the racial and constraints research together, Shinew and Floyd (2005) suggest a framework consisting of two items that may assist in the merger of these two areas. The framework is drawn from feminist studies and founded around the concepts of resistance and resourcefulness. Shinew and Floyd (2005) suggest that leisure can be viewed as a type of resistance. In this view, leisure "is seen as a space in which people, either individually or collectively, can challenge power distributions and the ways in which power is distributed within society" (Shinew & Floyd, 2005 p. 44). From a historic viewpoint, African Americans have had to challenge and resist the prevailing society through their own cultural values. Therefore, within the proposed theoretical framework of resistance, the authors posited that constraints researchers approach issues of constraints driven by three viewpoints that are used in studies of women's recreation (Shaw, 2001). These approaches are structuralist, postmodern, and interactionist.

The sturcturalist approach views resistance as individual empowerment, which leads to broader social changes through resisting hegemonic power. The end result of this type of resistance is social collective empowerment. Next, the poststructuralist or postmodern approach conceptualizes resistance by focusing on individual resistance with the outcome being individual empowerment. Finally, the interactionist position on resistance is that it is a mix between structuralist and postmodern views in that it attempts to combine the two by focusing on both individual and collective outcomes of resistance (Shaw, 2001; Shinew & Floyd, 2005). Overall, the authors suggest that recreation can be a powerful tool for minority populations to resist and challenge racism and inequality through their negotiation of constraints resulting in participation.

The second part of Shinew and Floyd's (2005) proposed framework includes the concept of resourcefulness. The authors suggest this portion of the framework "permits an analysis of the different types of resources that enable individuals and groups to negotiate constraints related to racial inequality" (Shinew & Floyd, 2005 p. 46). In other words, certain resources are needed in order for individuals and minority groups to resist and negotiate constraints. The authors suggest the following types of resources: material, relational, symbolic, and option. Material resources refer to an individual or groups financial and physical resources, such as time, money, education, skills, equipment, and requisite knowledge. Relational resources are those that are social based. These social ties include companions and access to voluntary organizations and institutions. Symbolic resources are racially based upon an individual or groups subcultural identity, such as ethnic pride. Finally, option resources are the leisure choices and alternatives that are available to people. The authors suggest that the categories are not mutually exclusive and combinations and variations of the resources are possible.

Shinew and Floyd (2005) suggested their proposed theoretical framework using resistance and resourcefulness may benefit constraints researchers to greater understanding of constraints and how African Americans negotiate the constraints they encounter. More specifically, they claim the proposed framework can serve as a launching point for further investigations into constraints and racial issues of inequality. While there are several limitations to the framework, it may serve as an appropriate and relevant context in which constraints research can effectively investigate African American culture and the unique constraints that lie therein.

Recreational Constraints and Culture

In addition to race/ethnicity, social influences, such as culture, have also been shown to affect outdoor recreation participation and constraints. In their study of constraints in a cross-cultural context, Dong and Chick (2005) examined participation and nonparticipation among Japanese and Chinese couples and found evidence that supports culturally prescriptive and proscriptive behaviors. Participants in their study discussed participation in condoned recreation activities. Examples of prescriptive recreation activities included playing with firecrackers and gambling as activities that are approved by the Chinese culture and reinforced through tradition. While many participants felt these activities were dangerous and unproductive, the association that these activities held on cultural levels distinguished their importance in society, and therefore, made it difficult to not participate in these prescriptive activities.

Chick and Dong (2005) provided other examples of cultural reinforced proscriptive recreational activities that resulted in nonparticipation. These activities included descriptions of cultural mores involving females and older generations that were constrained in their free time because of Chinese and Japanese traditions involving childcare and family obligations. These traditions acted as constraints that kept participants from engaging in desired recreation activities, as they felt obligated to comply with the cultural and societal norms.

As a result of their findings, Chick and Dong (2005) suggest that culture can be applied to constraints research. They further suggested that the traditional hierarchal model of constraints developed by Crawford, et al. (1991) cannot support culturally-based constraints. Chick and Dong (2005) reasoned that individuals must attend to a sequential ordering of constraints wherein the sequence of constraints reflects the importance of encountered limitations. The authors argued that culture is present in all three levels of the constraint model (intrapersonal,

interpersonal, and structural) and, as a result, suggested that culture should be superimposed upon the traditional model (Figure 1.2).

As a result, Chick and Dong (2005) advocated "a new line of research wherein culture is used as an independent variable in both intracultural and cross-cultural comparative studies of constraints" (p. 180). These authors further asserted that new understanding and insights into constraints may occur as a result of studying culture as it relates to constraints research. Other authors refuted this suggestion and argued that Chick and Dong's forth type of constraint (culture) can "just as easily be interpreted as a preciously overlooked, culturally influenced, component of *interpersonal* constraints" (Walker, Jackson, & Dieng, 2007 p. 574). Despite the critique against culture being included as an independent variable within the constraints model, there may be value in further examining and conceptualizing the idea of culture and as it relates to constraints affecting racial/ethnic minority groups.

Outdoor Recreational Constraints

Similar to research on general recreation and leisure constraints, outdoor recreation constraints research has primarily focused on structural constraints (Walker & Virden, 2005). For example, out of four studies examining outdoor recreation constraints on statewide levels in different states, the top rated constraints were structural in nature: lack of time, too busy with other activities, lack of information about parks or outdoor recreation areas, and parks and outdoor recreation areas are too far away (Alberta Community Development, 2000; Holland, Pennington-Gary & Thapa, 2001; Scott & Kim, 1998; Virden & Yoshioka, 1992). These studies may suggest "outdoor recreation may be more influenced by time availability, trip costs, and geographic accessibility than other types of non-outdoor recreation activities (Walker & Virden, 2005 p. 210). Walker and Virden (2005) also suggest there is a limited amount of research on

outdoor recreation constraints and there is a subsequent need for further investigations in this area.

Outdoor Recreation and Offsite Data Collection

Research examining differences in outdoor recreation constraints by race, gender, and rural dwelling for participants and non-participants has been conduced previously using telephone based NSRE data (Johnson, Bowker, Cordell, 2001; Scott & Mowen, 2010). While research has examined outdoor recreation constraints and non-participants, most studies have relied on telephone and internet surveys at the macro or national level. However, the use of specific, site level locations for offsite research for gathering survey data from non-participants/non-visitors is very limited in the literature and has been identified as an area needing constraint inquiry (Stanis, Schneider, Chavez, & Shinew, 2009). Subsequently, this study also used intercept surveys at public flea markets to gather non-visitor data related to state parks.

Problem Statement

An examination of previous recreation literature, along with recent and projected trends, suggests the need for a study investigating outdoor recreation as it applies to a diverse Georgia population. This need is particularly evident given several important gaps in recreation research. These inadequacies include:

1. Insufficient data collection methods for gathering baseline understanding of state park visitors by race/ethnicity;
2. Inadequate documentation of outdoor recreation participation patterns and park use, particularly state park use, among demographically diverse populations;

3. Inadequate understanding of outdoor recreation participation preferences, motivations, and perceived benefits of demographically diverse populations;
4. A paucity of research assessing outdoor recreation constraints of state park visitors and non-visitors by race/ethnicity;

By collaborating with the Georgia Department of Natural Resources State Parks and Historic Sites Division, this study sought to address each of these issues.

Statement of Purpose and Research Objectives

This study compared populations of Georgia state park visitors and non-visitors by socio-demographic variables (i.e., race/ethnicity, age, gender, education, and income) in order to examine:

1. The System for Observing Play and Recreation in Communities (SOPARC) as a visitor monitoring tool in state parks;
2. The outdoor recreation preferences, motivations, and perceived benefits of state park visitors and non-visitors;
3. The outdoor recreational constraints of state park visitors and non-visitors;

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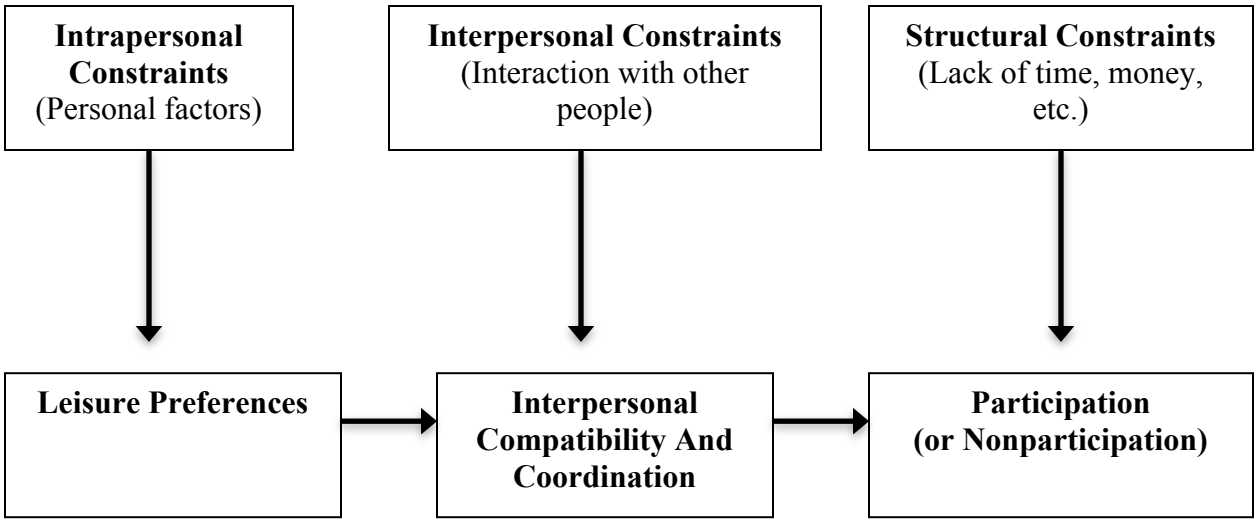

Figure 1.1. Hierarchical model of leisure constraints (adapted from Crawford, Jackson, and Godbey, 1991)

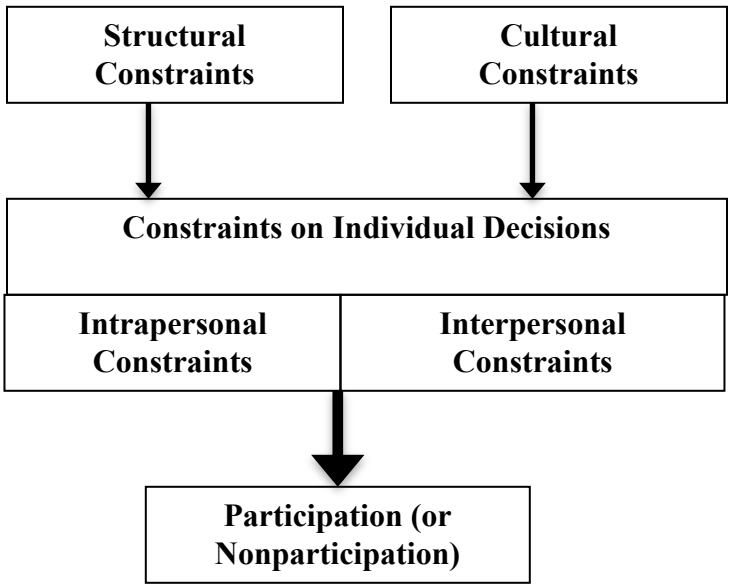

Figure 1.2. Refined model of leisure constraints (Chick & Dong, 2003)

CHAPTER 2

RESEARCH METHODS AND SAMPLE OVERVIEW[1]

This study consisted of two data collection phases. First, onsite data were collected in three state parks in North Georgia using intercept surveys, visitor observations, and exit surveys. Second, offsite data were collected in eight flea markets located near the three focal parks. The following contains a description of these methods and some demographic descriptions of respondents.

Phase 1: Onsite Data Collection

Selected State Parks

Following a review and visits to many Georgia state parks, three parks (Fort Mountain, Fort Yargo, and Red Top Mountain; Appendix A) were selected as study sites. These sites were selected based on annual visitation rates, anecdotal reports from state park managers, and recommendation from administrative officials in the Georgia Department of Natural Resources' Parks, Recreation, and Historic Sites Division regarding the racial, ethnic, and cultural diversity of visitors. All three state parks had similar facilities that included an assortment of land and water-based recreation activities such as camping, cycling, hiking, swimming, boating, and picnicking (Table 2.1; Appendix B). Children's playgrounds and mini-golf courses were also present at each park, and all parks featured a historic site accompanied by heritage interpretation. Despite these similarities, these three state parks do have some unique features. For example, Fort Mountain has 25 miles of horse trails. Fort Yargo includes basketball courts and a popular

[1] This chapter is adapted from a report submitted to the *Georgia Department of Natural Resources State Parks and Historical Sites Division* (2012).

group camping area. Red Top Mountain is home to a large marina and boat ramp that serve as a gateway to recreation on Lake Allatoona. Overall, these three state parks are among the most popular parks in the Georgia State Park system (VanDeGenachte, 2010).

On-site data collection centered on primary automotive exit points and "recreation hotspots" within each state park. The term "recreation hotspots" has been used to describe specific areas where recreation demands are the greatest or areas where recreation demand is expected to intensify (Cordell & Green, 2001). Although the term is typically applied on larger scales, here it is used to refer to concentrated centers of recreational use within each of the state parks. These hotspots, which were identified after several site visits and discussions with on-site managers, were typically campgrounds and popular day use areas near major attractions such as lakes or beaches.

Pilot Study

A pilot study using exit surveys, intercept surveys, and behavior observations was conducted at each of the three state parks during May 23 – November 7, 2009 (Table 2.2). The pilot study was designed to: (1) assess the feasibility of the proposed research methods in each particular state park, (2) develop a standardized research protocol to be used by multiple investigators, and (3) evaluate the reliability and validity of the survey instrument. Almost 200 vehicles were surveyed at exit points. During the intercept survey sessions, 840 surveys were collected from visitors at the campgrounds and recreation hotspots. Over 2,000 state park users were observed at recreation hotspots during observation sessions (Table 2.2). Pilot study data led to several revisions of question structure and sampling procedures that improved data collection protocols.

For example, many intercept survey respondents skipped multiple items and complained about the overall length of the instrument (two distinct four-page versions). To facilitate comprehension and ease the time burden, survey content was subsequently split across five different two-page versions. The shorter instruments led to an increase in response rates and overall reliability of responses. Additionally, several open-ended questions yielded very few responses. As a result, these questions were either eliminated or modified to include closed response choices. An additional question was added to the exit survey to account for groups exiting the park multiple times in the same day. After encountering problems with double-counting visitors, the behavior observation recording procedure was changed from stationary to mobile. By systematically moving across the site as counts were being conducted, researchers were able to observe and record physical activity more accurately and efficiently.

On-Site Data Collection Methods

After incorporating these revisions, on-site data were collected and cross-validated using three distinct sampling procedures: exit surveys, intercept surveys, and behavior observations (Table 2.3; Figure 2.1). On-site data were collected between Memorial Day and Labor Day weekends (May 29 – September 6) during the summer of 2010.

Exit Surveys

Exit surveys were conducted at primary gates and state park access points (Figure 2.1a; Appendix C). Surveying visitors who are exiting parks is a preferred strategy for visitor counts because it allows visitors to provide more detailed information about their length of stay and activity choices (English, Kocis, Zarnoch, & Arnold, 2001). During each exit survey, researchers stopped every third vehicle passing through the exit point and asked drivers the following questions:

1. How many people are in your car?
2. How many people in your car are under age 18?
3. How long have you been at XXX State Park today?
4. What was your main activity during this visit?
5. Are you coming back to XXX State Park today?

Each researcher also documented the gender and race/ethnicity of vehicle occupants to the best of his/her ability. The interactions, which usually lasted 15-30 seconds, did not impede the flow of traffic from the site. The exit survey sampling schedule was determined by a stratified sampling protocol designed to capture state park use across temporal scales. Exit surveys also provided detailed visitor use data to supplement basic vehicle counts, which GA DNR currently calculates infrequently – typically on a monthly basis (VanDeGenachte, 2010).

Intercept Surveys

Self-administered intercept surveys of state park users were conducted in and around the recreation hotspots (Figure 2.1b; Appendices D, E, F). During intercept survey sessions, researchers and trained volunteers approached every visitor age 18 or older and asked if he/she would be willing to participate in a brief survey about state park use. Upon consent, participants were randomly given one of five different survey versions (Appendix F). Survey Versions one through Version four contained adult-oriented items. Version 5 focused on Children's Outdoor Recreation, and required adult respondents to answer questions about the child (under age 18) in their family who had the most recent birthday (Table 2.4). If a respondent who did not have children was given Version 5, then that participant was randomly handed a different adult-oriented survey version. Surveys were available in Spanish, and the Spanish language proficiency of all survey administrators was verified prior to field work. After a survey was

distributed, researchers remained in the area and responded to questions as necessary, allowing ample time (approximately 5-15 minutes) for survey completion (Appendix B). Refusal rates and reasons for refusals were recorded and used to calculate response rates and identify potential sampling bias.

Each version of the survey instrument included two pages (one sheet, front and back) of items designed to address a specific subset of research objectives (Table 2.4). General questions designed to capture state park visitation frequency and important elements of experience use history appeared on every survey version. On the last page of every survey, participants were asked to provide demographic information such as gender, age, education, income, zip code, and race/ethnicity. Respondents also had the opportunity to specify ethnic origin to encapsulate more dynamic components of their culture. Each survey included an open-ended comment box where participants could supply additional suggestions and recommendations for park managers.

Behavior Observations

Observations of visitor activity at each state park were conducted using the System for Observing Play and Recreation in Communities (SOPARC; Figure 2.1c; Appendix G). The SOPARC is a reliable and feasible strategy for assessing physical activity in community settings, and has been used to examine park activity in multiple contexts (McKenzie, Cohen, Sehgal, Williamson, & Golinelli, 2006). In this study, SOPARC observations focused on the designated recreation hotspots – especially the swimming beaches and other grassy play and picnic areas ideally suited for fitness and/or sport activities. During SOPARC sessions, researchers began at one end of a target area (e.g. water or fence line) and slowly walked across the zone, documenting the gender, age, race/ethnicity, and physical activity level of recreation participants. If participants were engaged in either moderate or vigorous physical activity, the activity type

was also noted. The unobtrusive SOPARC observations did not appear to affect visitor behavior or impact visitor experiences. The SOPARC observation schedule for target areas in each park was dictated by a stratified sampling protocol designed to capture state park use across temporal scales.

Phase 2: Off-site Data Collection

During Phase 2 of the project, the research focused on communities surrounding the focal parks. To reach a diverse population who may or may not be state park users, researchers targeted indoor and outdoor flea markets attendees. These markets were scattered across the north part of Georgia, and included locations in metro Atlanta as well as venues in more rural settings (Table 2.5). The sites varied in size (from 15 to 1000 vendors) and structure (e.g., outdoor tables, outdoor tents, indoor malls), but each flea market contained a racially and ethnically diverse sample of potential survey respondents. Off-site data were collected between March 27 and July 24 during the summer of 2011.

Data collection procedures at flea markets focused on two distinct groups: vendors (defined as any person selling goods at the market) and customers (defined as any person visiting the market to browse or purchase items). To survey vendors, researchers used an administration approach similar to the on-site protocol. Researchers and trained volunteers approached the booth of every vendor age 18 or older and asked if he/she would be willing to participate in a brief survey about outdoor recreation in Georgia (Figure 2.2a). Upon consent, participants were randomly given one of the five different survey versions (Appendix H). If a respondent who did not have children was given survey Version 5 (the version centered on “Children’s Outdoor Recreation”), then that participant was randomly handed a different adult-oriented survey version. Surveys were available in Spanish, and the Spanish language proficiency of all survey

administrators was verified prior to field work. After a survey was distributed, researchers remained in the area and responded to questions as necessary, allowing ample time (approximately 5-15 minutes) for survey completion. Refusal rates and reasons for refusals were recorded and used to calculate response rates and identify potential sampling bias.

To survey flea market customers, researchers used an incentive-based participation approach. Every third flea market visitor (age 18 or older) passing a designated table was approached and asked if they would be willing to take a brief outdoor recreation survey in exchange for candy (Figure 2.2b). Upon consent, participants were randomly given one of the five different survey versions to complete at the table. If the customer declined, refusal rates and reasons for refusal were recorded and used to calculate response rates.

The self-administered intercept survey protocol and format used in off-site data collection closely matched the survey protocol and format used in state parks, and all survey versions contained similar content (Table 2.4). However, item wording was slightly adapted for the new audience and context (e.g., instead of "How many times did you visit this state park?", the item asked "How many times have you visited any Georgia state park?"). Each off-site survey included an open-ended question where participants could highlight general park features important to them when deciding where to visit.

Intercept Survey Response Rates

On-site intercept survey response rates were high (91.5%) during data collection at all state parks, and were similar in both campgrounds (93.8%) and day use areas (90.9%) across demographic groups (Table 2.6). The most common reasons for not responding in state parks were lack of interest (39.1% of non-respondents) and lack of time (13.3%). A number of visitors failed to complete survey the survey (36.6%). Major demographic differences in non-response

reasons were not evident in campgrounds, but a few discrepancies emerged in day use areas. In these survey zones, reasons for not responding differed significantly by age, $\chi^2(8,408) = 33.7$, $p < 0.001$, and racial/ethnic group, $\chi^2(12,408) = 21.1$, $p = 0.049$. Younger people (ages 18-30) cited a lack of interest (47.8% of non-respondents) and a lack of time (25.4%) more often than people in older age groups. Middle-aged people (ages 31-59) were more likely to depart or quit before completing the survey (37.6%). Older people (age 60 or older) were more likely than other age groups to decline participation because of language or literacy issues (20.0%). People in all racial/ethnic groups departed or quit before completing the survey at approximately equal rates (between 30.0% and 35.8%). African Americans were the most likely to cite lack of interest as a reason for not participating (49.0%). Latinos (13.8%) and people in the Other group (10.9%, primarily Asians) were more than twice as likely to decline because of language or literacy issues.

Off-site intercept survey response rates were lower than on-site rates – but still relatively high (73.7%) during data collection at all flea markets. Off-site response rates were similar for both the customer (70.7%) and vendor (74.9%) strategies, but response rates differed significantly by demographic group (Table 2.7). The most common reasons for not responding at flea markets were lack of interest (51.0% of non-respondents), failure to complete survey (17.1%), and language or literacy issues (16.8%). Major age, $\chi^2(8,469) = 33.7$, $p < 0.001$, and racial/ethnic, $\chi^2(12,469) = 103.7$, $p < 0.001$, differences in off-site non-response reasons were also evident. People in the 31-59 (48.2%) and 60+ (63.4%) year old age groups were more likely to cite lack of interest as a reason for not responding than younger people. Younger people (18-30 year olds) were much more likely to depart or quit before completing the survey (38.7%). Language or literacy issues were equally problematic across all age groups (between 12.9% and

18.7%). Among racial/ethnic groups, Whites (67.5%) were more likely than other groups to cite lack of interest as a reason for not responding. African Americans (22.5%) and Latinos (23.1%) were more likely to leave without completing the survey. Language or literacy issues were the largest problem for Latinos (20.6%) and people in the Other category (48.4%, primarily Asian).

Demographic Sample Overview

Exit Surveys

Exit surveys revealed an average count of 3.00 ± 0.08 (mean ± 95% confidence interval) passengers per vehicle leaving state parks. The mean number of passengers per vehicle varied by park: Fort Mountain (M = 3.14 ± 0.17), Fort Yargo (M = 2.78 ± 0.11), and Red Top Mountain (M = 2.78 ± 0.14). Exit counts revealed demographic differences in visitor composition among the three parks (Table 2.8). The male to female ratio was similar in all parks. Red Top Mountain and Fort Yargo appeared to attract more children than Fort Mountain. Whites represented a large majority of visitors at Fort Mountain. The ratio of White to non-White visitors was lower at Fort Yargo, and much lower at Red Top Mountain – where Whites were actually the minority.

Focusing exclusively on visitors who spent time in day use recreation hotspots (e.g., beaches, picnic areas), the exit survey counts revealed a larger percentage of minority visitors across all parks (Table 2.8). The numbers of Hispanic/Latinos, in particular, was high in these areas. Latinos were the racial/ethnic group that accounted for the largest number of day use visitors at Red Top Mountain.

Intercept Surveys

A comparison of the demographic characteristics of on-site state park intercept survey respondents revealed significant differences between the campground and day use areas (Table 2.9). Visitors surveyed in the campgrounds tended to be White, older, more educated, and had

higher incomes. Day users were more likely to be minority (especially Hispanic/Latino), less educated, and lower-income. Almost all of the campground-based visitors preferred to speak English, but only two thirds of day users listed "English only" as their language preference. The off-site sample was comparable to the state park day use sample, but more diverse and low income (Table 2.9).

SOPARC Observations

The SOPARC observations in beach areas and trailheads within each park also revealed racial/ethnic differences in state park visitation patterns (Figure 2.3). Whites and Latinos represented the largest portion of visitors in day use areas. Whites were observed more often than other groups of visitors at trailheads across all parks. The racial/ethnic differences also varied by park (Table 2.11).

Across all parks, observations in beach areas revealed significant differences in age distribution within racial/ethnic categories, $\chi^2(9,16464) = 148.1$, $p < 0.001$, Cramer's V = 0.06. A higher proportion of visitors observed in the African American (41.9%) and Latino (47.7%) groups were children than in other racial/ethnic categories. African American teens (19.7%) were also more commonly observed than teens in other racial/ethnic groups. Although visitors in the senior adult category (estimated to be 60 or older) represented just 2.3% of the total sample, the ratio was higher for Whites (3.2%).

Limitations

This study had certain limitations. Three state parks (intentionally selected by GA DNR to represent parks in north Georgia) and eight flea markets in northern Georgia were selected as onsite and offsite sampling locations. Sampling strategies were limited by financial and time constraints and did not represent a random sample of Georgia residents. Hence, while the results

of this study reflect recreation patterns at these sites and the surrounding region, the application of these findings may be limited solely to these areas. Furthermore, inferences into outdoor recreation behavior at other sites should be undertaken with caution. Future studies could examine larger regions to compare these findings.

Flea markets were selected as open, public venues where demographically diverse Georgians (i.e., varying racial/ethnic and income groups) were readily accessible. Offsite responses from this sample may not be representative of non-visitors in Georgia. Furthermore, customer respondents completing surveys for the motivational candy bar may have been biased. Flea markets were selected in communities surrounding focal parks with the goal of gathering feedback from non-visitors residing close to parks, however, offsite respondents may not represent individuals residing close to parks.

Onsite data were also collected during peak visitation summer months (Memorial Day-Labor Day) in order to capture the largest number of respondents. Data were not gathered during the offseason and may be different from recreation patterns of visitors during the peak season. Inferences into visitation should consider the sample calendar used in this study.

Two White, bilingual males collected the majority of data used in this study. Survey responses may have been affected by the race or gender of researchers. For example, racial/ethnic minorities may have viewed researchers has authoritative figures and formed responses to surveys based upon what they thought would please researchers. Likewise, park behavior of certain groups (i.e., Hispanic/Latinos, women) may have been impacted from fear or intimidation from viewing researchers carrying paperwork and clipboards during data collection. Also, researchers have innate biases, which, despite striving for objectivity, may affect their

paradigms and interpretation of recreation patterns. Although surveys were available in English and Spanish, some respondents were illiterate.

Sampling methods used in this study had some limitations. While over 80% of visitors frequented recreation hotspots (i.e., areas where surveys were administered; beaches, picnic areas, and campgrounds) during their visit, there was an additional 20% that did not. The outdoor recreation behaviors of this group may have deviated from the majority of park visitors who completed surveys in recreation hotspot areas.

Finally, many chapters in this dissertation included reports of data pooled as sample averages across all parks and flea markets. This technique was used to show general patterns across sites and define "typical" attributes of state park visitors and non-visitors across different demographic groups. However, because the characteristics of participants at different research sites were not identical and sampling was not conducted using a randomized statically based protocol such as those used by the U.S. Forest Service Visitor Use Monitoring System (e.g., English, et al., 2002), pooled results should be interpreted with some caution. Additional analyses using post-weighting procedures could be used to account for certain over- or under-represented subgroups within the sample populations and generate broader inferences regarding state park visitors and non-visitors (Vaske, 2008). As previously mentioned, the subsamples covered in this dissertation were part of a larger *GASP Diversity Project*, that included a range of other topics pertaining to outdoor recreation behavior in Georgia state parks. For an overview of these topics see Appendix I or Larson, Whiting, & Green (2012).

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Table 2.1

Description of Georgia State Parks Sampled During Summer 2009 and Summer 2010

State Park	Location	Annual Visitation 5-year Average (2004-2008)	Facilities
Fort Mountain	Chatsworth, GA Murray County	135,339	3,712 acres 17-acre lake Swimming beach 41 miles of hiking/biking trails 47 campsites 7 picnic shelters
Fort Yargo	Winder, GA Barrow County	396,360	1,815 acres 260-acre lake Swimming beach 15 miles of hiking/biking trails 74 campsites 5 picnic shelters
Red Top Mountain	Cartersville, GA Bartow County	837,614	1,776 acres 12,010-acre lake (Allatoona) Swimming beach 17 miles of hiking/biking trails 92 campsites 7 picnic shelters

Table 2.2

Pilot Study Sample Totals for Data Collected in Georgia State Parks During Summer 2009

State Park	Exit Surveys (# cars stopped)	Intercept Surveys (# Surveys Collected)	Observations (# Visitors Observed)
Fort Mountain	90	187	616
Fort Yargo	99	305	1,136
Red Top Mountain	0*	348	529
TOTAL	189	840	2,281

*The exit survey procedure was defined during site visits to Red Top Mountain, but no data were collected there.

Table 2.3

Onsite Sample Totals for Data Collected in Georgia State Parks During Summer 2010

State Park	Exit Surveys (# Cars Stopped)	Intercept Surveys (# Surveys Collected)	Observations (# Visitors Observed)
Fort Mountain	241 (over 48 sessions)	1,548 (69% day use)	4,355 (over 80 sessions)
Fort Yargo	530 (over 45 sessions)	1,700 (86% day use)	8,005 (over 72 sessions)
Red Top Mountain	342 (over 46 sessions)	1,944 (79% day use)	6,165 (over 65 sessions)
TOTAL	1,113 (over 139 sessions)	5,192 (78% day use)	18,525 (over 217 sessions)

Table 2.4

Description of Onsite Intercept Survey Content (by Survey Version) During the Summer 2010 Georgia State Park Diversity Project

Survey Version	Survey-specific Content	Measurement Scale
Version 1 (General Outdoor Recreation)	SP recreation activities (adults) Motivations to visit SP SP recreation preferences Perceived benefits of SP visits (adults)	Binary (did OR did not participate) Likert (from 1=not important to 5=extremely important) Likert (from 1=not important to 5=extremely important) Likert (from 1=strongly disagree to 5=strongly agree)
Version 2 (Constraints to Outdoor Recreation)	Constraints to SP visitation Social norms	Likert (from 1=not a reason to 5=major reason) Likert (from 1=very unlikely to 5=very likely)
Version 3 (Willingness to Pay for Parks)	Willingness to pay more for SP Response to hypothetical price shift Type of SP payment preferences Place attachment	Binary (would OR would not pay more – with amount) Categorical (visits decrease, stay the same, increase) Categorical (various payment options) Likert (from 1=strongly disagree to 5=strongly agree)
Version 4[a] (Park-based Physical Activity)	Physical activity locations Physical activity time budget (adults) Park features used for physical activity Physical activity site preferences	Likert (from 1=never to 5=very often) Open-ended (fill in blank) Binary (did OR did not use) Likert (from 1=not important to 5=extremely important)
Version 5 (Children's Outdoor Recreation)	SP recreation activities (kids) Perceived benefits of SP visits (kids) Physical activity time budget (kids)	Binary (did OR did not participate) Likert (from 1=strongly disagree to 5=strongly agree) Open-ended (fill in blank)

[a]The self-reported physical activity questions on Survey Version 4 distinguished between moderate and vigorous physical activity using explicit definitions derived from international and national lifestyle surveys created by the Centers for Disease Control and Prevention and several example activities in each category (Bauman et al., 2009; Centers for Disease Control and Prevention, 2009). *Moderate* activity was defined as physical activity that causes some increase in breathing and heart rates for at least ten minutes at a time. *Vigorous* activity was defined as physical activity that produces a large increase in breathing and heart rate for at least ten minutes at a time.

Table 2.5

Offsite Sample Totals for Data Collected in North Georgia Flea Markets During Summer 2011

Flea Market Name	**Location (Georgia County)**	**Intercept Surveys (# Surveys Collected)**
285	DeKalb	52
Big D	Whitfield	304
Buford Highway	DeKalb	55
J & J	Clarke	544
Marietta	Cobb	41
Pendergrass	Jackson	211
Tucker	DeKalb	38
Yesteryear	Cobb	70
TOTAL		1,315

Table 2.6

Response Rate Data and Reasons for Not Responding (by Demographic Group) for Onsite Sample in Georgia State Parks During Summer 2010 (5,675 people approached, 5,192 surveys collected)

Demographic Variable	Response Rate (%)	Top Reasons for Not Responding
Gender		
Female	92.8	Not interested (36.7%); Did not complete (35.7%)
Male	89.3	Not interested (40.5%); Did not complete (37.8%)
Age		
18-30 year olds	93.4	Not interested (42.0%); Did not complete (28.4%)
31-59 year olds	87.2	Did not complete (40.3%); Not interested (38.9%)
60+ years old	88.1	Not interested (35.7%); Did not complete (21.4%)
Race/Ethnicity		
White/ White	92.3	Not interested (41.2%); Did not complete (36.5%)
Hispanic/Latino	91.3	Did not complete (37.0%); Not interested (31.5%)
Black/African	88.7	Not interested (49.0%); Did not complete (32.7%)
American	86.7	Not interested (40.7%); Did not complete (35.4%)
Asian/Other		

Table 2.7

Response Rate Data and Reasons for Not Responding (by Demographic Group) for Offsite Sample in North Georgia Flea Markets During Summer 2011 (1,784 people approached, 1,315 surveys collected)

Demographic Variable	Response Rate (%)	Top Reasons for Not Responding
Gender		
Female	78.5	Not interested (48.9%); Language/literacy issues (17.0%)
Male	68.8	Not interested (52.3%); Did not complete (17.1%)
Age		
18-30 year olds	85.0	Did not complete (38.7%); Not interested (38.7%)
31-59 year olds	64.4	Not interested (48.2%); Language/literacy issues (18.7%)
60+ years old	41.7	Not interested (63.4%); Language/literacy issues (14.6%)
Race/Ethnicity		
White/ White	72.3	Not interested (67.5%); Not enough time (11.9%)
Hispanic/Latino	75.3	Not interested (43.8%); Did not complete (23.1%)
Black/African	78.4	Not interested (39.2%); Did not complete (35.3%)
American	64.3	Language/literacy issues (48.4%); Not interested (28.1%)
Asian/Other		

Table 2.8

Demographic Distribution of Visitors[a] *(% of total, by Park, With Local County Comparisons) During Exit Counts in Three North Georgia State Parks, During Summer 2010*

	Location					
Variable	**Fort Mnt** (n=745)	***Murray County***	**Fort Yargo** (n=1361)	***Barrow County***	**Red Top Mountain** (n=1096)	***Bartow County***
Gender						
Female	50.6	*50.7*	48.3	*50.7*	49.2	*50.6*
Male	49.4	*49.3*	51.6	*49.3*	50.8	*49.4*
Age						
Under 18 (child)	33.3	*27.7*	40.6	*27.8*	38.5	*26.6*
Over 18 (adult)	66.7	*72.3*	59.4	*72.2*	61.5	*73.4*
Race/Ethnicity						
White/Caucasian	79.1	*75*	63.1	*74.8*	41.7	*79.9*
Hispanic/Latino	18.4	*8.7*	20.9	*8.7*	31.8	*7.7*
Black/A. Amer.	1.2	*11.4*	9.6	*11.4*	17.8	*10.2*
Asian/Other	1.3	*4.9*	6.5	*5.1*	8.8	*2.2*

[a] Workers and park volunteers excluded

Table 2.9

Intercept Survey Respondents (% of total) in Onsite Georgia State Park and Offsite Flea Market Sample (by Survey Location and Demographic Group)

Variable	On-site: Campgrounds (n=1136)	On-site: Day Use Areas (n=4056)	Off-site (n=1315)
Gender			
Female	50.3	58.6	51.3
Male	49.7	41.4	48.7
Age			
Under 18 years old	19.2	22.7	24.7
18-30 years old	14.8	25.1	27.8
31-50 years old	39.7	41.2	31.6
Over 50 years old	26.3	11.0	15.9
Race/Ethnicity			
White or White	90.0	51.7	39.1
Hispanic/Latino	3.8	30.9	36.9
Black or African American	2.1	8.2	14.1
Asian	1.4	3.9	6.3
American Indian	0.2	0.6	0.6
Other	0.7	1.1	0.9
Multiracial	2.0	3.7	2.0
Language Preference			
English	93.7	63.4	58.9
English & Spanish	3.9	21.0	22.0
Spanish	1.0	11.1	12.9
Other	1.4	4.5	6.2
Education			
Some high school	5.2	13.8	18.2
High school or GED	26.0	38.8	43.7
College or advanced degree	68.7	47.4	38.1
Income			
$25,000 or less	6.5	21.9	34.1
$25,001 to $50,000	19.7	24.7	26.5
$50,001 to $100,000	33.2	23.2	14.9
$100,001 or more	21.0	9.4	2.9
Refuse to answer	19.6	20.8	21.6

Table 2.10

Visitors Observed (% of Total by Race/Ethnicity) in Different Zones of Three North Georgia State Parks During Summer 2010

	Race/Ethnicity			
Site	**White**	**Hispanic Latino**	**Black**	**Asian/ Other**
Fort Mountain				
Beach (n=3264)	61.5	34.8	1.3	2.3
Trail (n=848)	92.6	1.8	1.1	4.6
Murray County	*75.0*	*8.7*	*11.4*	*4.9*
Fort Yargo				
Beach (n=7333)	46.6	39.5	10.5	3.4
Trail (n=692)	64.7	14.3	14.9	6.1
Barrow County	*74.8*	*8.7*	*11.4*	*5.1*
Red Top Mountain				
Beach (n=5987)	39.7	43.3	12.5	4.5
Trail (n=521)	88.7	0.8	2.5	8.1
Bartow County	*79.9*	*7.7*	*10.2*	*2.2*

Figure 2.1. Photographical depiction of exit survey (a), behavior observation (b), and intercept survey (c) sampling procedures during the 2009 pilot study

Figure 2.2. Photographical depiction of flea market survey strategies for vendors (a) and customers (b) during the 2011 offsite data collection

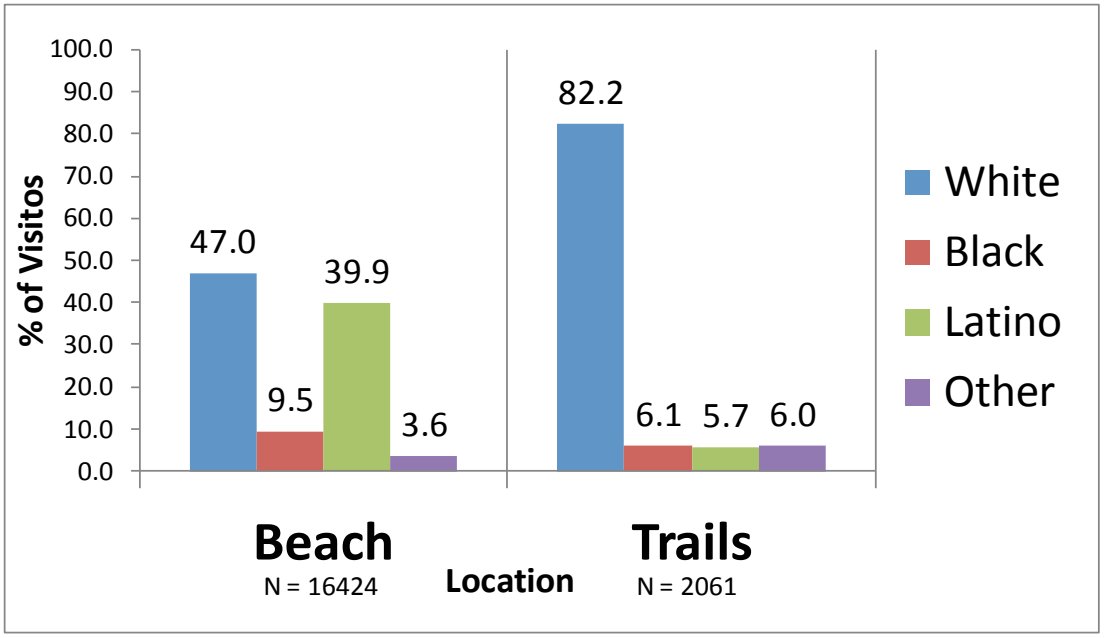

Figure 2.3. Visitors observed in different areas of state parks (by race/ethnicity)

CHAPTER 3

USING THE SYSTEM FOR OBSERVING PLAY AND RECREATION IN COMMUNITIES (SOPARC) TO ASSESS STATE PARK VISITATION PATTERNS IN GEORGIA STATE PARKS[2]

[2] Whiting, J. W., Larson, L. R., Green, G. T., Submitted to *Journal of Park and Recreation Administration*, 12/16/2011.

Abstract

The socio-demographic composition of the United States population continues to shift as racial/ethnic minorities increasingly comprise larger percentages of the population. Subsequently, state park managers are seeking to find new ways to efficiently monitor these changes, adapt to severe financial constraints, and maintain the relevancy of their parks in today's society. For example, despite evidence suggesting park visitation increases visitors' physical activity and may lead to healthier life styles, public support for parks has decreased.

Within this dynamic context, research is needed to identify strategies that could help state park managers assess their visitation and use patterns and adapt their services to meet the needs of a more diverse clientele. The System for Observing Play and Recreation in Communities **(**SOPARC) is one standardized, observation-based data collection strategy that could help to accomplish all of these goals. However, although SOPARC has been used effectively in local settings, its feasibility on a state park level remains relatively unexplored. Hence, this study uses research in three Georgia state parks to provide empirical evidence that supports the use of SOPARC as a versatile data collection tool that can capture general visitation patterns in state park settings. This study also examined SOPARC's reliability and validity relative to other established data collection techniques to help state park managers determine if and when SOPARC should be used to provide valuable information about park visitors.

Introduction and Review of Literature

The population of the United States is changing rapidly. Estimates suggest recent exponential growth will continue to increase into mid-century as the socio-demographic composition of the population continues to shift with racial/ethnic minorities comprising larger percentages of the population over the next several decades (Ennis, Rios-Vargas, Albert, 2011;

U.S. Census Buearu, 2008). One outcome of these changes is that patterns of state park use are changing. Historically, many state parks were constructed and managed for White visitors, as they comprised the majority of the population (Washburn, 1978). State park use patterns, however, are changing and park management models that were historically sufficient for one racial/ethnic group are now dated and insufficient to meet the needs of an ever-increasing culturally diverse population.

Many managers, aware of these visitation patterns, are seeking new ways to efficiently monitor these changes and to identify the characteristics of their visitors and how they use state parks. One challenge facing managers are the increasing financial constraints that state parks across the nation are currently experiencing. Managers are also being pressured to have their parks become more cost efficient and revenue generating (National Conference of State Legislatures, 2010). These budgetary challenges have already resulted in the loss of park staff, degradation of park equipment and facilities, and directly impacted levels of visitor satisfaction, return rates, and service quality (Thomas et al., 2000). Contributing to these budgetary cuts is the fact that state park visitation is often used as a key factor in determining annual park budgets. As a result of these challenges, the need for more valid and reliable data to help understand changing patterns in park visitation has become increasingly more vital for state park managers in their decision-making process (Eagles, 2002).

State park managers also struggle to make parks relevant in today's modern society. Research suggests park visitation and nature appreciation has declined in recent years (Pergams & Zaradic, 2006, 2008). Despite evidence suggesting park visitation increases visitors' physical activity and leads to healthier life styles, public support for parks has decreased (Godbey & Mowen, 2011; Hoehner, Brennan Ramirez, Elliott, Handy, & Brownson, 2005). Tangentially,

rates of physical inactivity, obesity, chronic diseases, and associated medical costs, severely impact the daily lives of many Americans (Sofi, Capalbo, Cesari, Abbate, & Gensini, 2008). In fact, over 30 percent of Americans are overweight and at significant risk of heart failure (CDC, 2011). Physical inactivity is especially high among African American and Latino groups. Research also indicates these groups are more sedentary during their leisure time than Whites (Crespo, Smit, Andersen, Carter-Pokras, & Ainsworth, 2000). It has been documented that racial/ethnic minorities are underrepresented in parks and other public lands that offer opportunities for physical activity participation (Cutts, Darby, Boone, & Brewis, 2009). Park managers, therefore, may be in a unique position to assist visitors, particularly racial/ethnic minorities, in becoming more physically active through park-based activity.

However, to help increase park-based activity managers must first understand current visitation trends. As this understanding occurs, park managers may begin to appreciate what resources are being used to meet the needs of park visitors. Park managers could also determine what changes should or should not be made to existing resources in order to help increase park visitation and physical activity levels of all present or potential users. Identifying these user patterns, however, is difficult for managers operating on limited budgets with reduced staff.

One strategy that has been implemented to gather data focusing on physical activity trends is SOPARC. Developed by McKenzie et al (2005), SOPARC was designed to "obtain observational data on the number of participants and their physical activity levels during physical activity…in community environments" (McKenzie, et al., 2006 p. 2). Numerous studies have implemented this versatile system to measure the differences of physical activity preference by age, gender, race/ethnicity, and the level or intensity of physical activity of individuals in variety of settings (e.g., sport/athletic facilities, urban parks, neighborhood parks, rural areas, and pre-

schools) (Cohen et al., 2007; Cohen et al., 2006; Floyd, Spengler, Maddock, Gobster, & Suau, 2008; Larson, Whiting, & Green, 2010). When using SOPARC trained observers code individual's physical activity levels (sedentary, walking, and vigorous), while scanning a pre-determined area. Also coded during the scanning process are age (senior, adult, teen, child), gender, and race/ethnicity (Latino, Black, White, or Other), and environmental settings (location, supervision, equipment, and free play vs. organized activity). This standardized data collection strategy has been useful to park managers interested in gathering data on physical activity participation, but it could also become a valuable asset for the assessment of general park visitation trends and facility use.

The implementation of SOPARC in local parks and community settings over the past 12 years has been immense.. For example, since its creation in 2005, numerous studies have used SOPARC as a systematic protocol for objectively measuring physical activity and the area's characteristics in community parks (Bocarro et al., 2009; McKenzie, Cohen, Sehgal, Williamson, & Golinelli, 2006a; Parra et al., 2010; Shores & West, 2008). The feasibility of SOPARC on a larger, state park level remains relatively unexplored. While state parks represent a much smaller percentage of total parks in the U.S., the implementation of SOPARC could function in state parks as they provide areas that encourage outdoor recreation and physical activity. Therefore, the question of SOPARC's effectiveness in this regard is of interest to state park managers who want to know more about their visitor demographics, activity choices and physical activity patterns. Furthermore, the reliability and validity of implementing SOPARC within state parks has yet to be examined.

Conventional data collection strategies in parks have included administering intercept and exit surveys and mechanically recorded vehicle counters (Darcy, Griffin, Crilley, &

Schweinsberg, 2010). However, some of these measures are often unreliable, and provide extremely limited information to park managers and, subsequently, have influenced the call for better park visitor statistics (Eagles, 2002). For example, exit counts alone do not provide managers with information regarding visitors' preferences in park activity or actual use of specific areas or physical activity levels. Intercept and exit surveys, while more robust than exit counts, require trained staff to dedicate considerable time to collecting sufficient surveys in order to obtain samples of park visitation that will provide valid and reliable results (Vaske, 2008). Hence, the need for solid data, upon which sound management decisions may be made, is crucial and often times unattainable for park managers (Eagles, 2002). As a result, many park managers operating on reduced budgets struggle to identify visitation patterns that could tell them who their visitors are and what they want. Furthermore, state park visitation is often used as a contributing factor in determining annual park budgets. Using SOPARC may provide advantages compared to traditional data collection strategies. For example, as an observational tool, SOPARC can be less intrusive to visitors than other data collection strategies. Similar to other strategies, SOPARC is labor intensive, however, it may be more affordable than other methods as greater amounts of basic visitation data can be gathered in shorter amounts of time by staff during routine visits to park areas (McKenzie, Cohen, Sehgal, Williamson, & Golinelli, 2006b). The implementation of SOPARC may also improve the efficacy of park-based data collection as park staff can be dually trained as employees, with regular responsibilities, and as SOPARC observers. This type of employee crossover may assist park managers in gathering data to better understand who their visitors are and their expected preferences.

This study uses research in Georgia state parks to address two primary research objectives: 1) to examine and validate a variety of data collection tools to increase understanding

of state park use patterns in Georgia; and 2) to explore the specific potential of SOPARC as a versatile data collection tool in park settings relative to more conventional strategies. In additional to providing a valuable baseline regarding state park use, assessments of SOPARC's reliability and validity relative to other established data collection techniques (e.g., intercept and exit surveys) should help managers determine if and when the instrument can be used to provide valuable information about park visitors.

Methods

Research Settings

Three state parks in Northern Georgia were selected for this study (i.e., Fort Mountain, Fort Yargo, and Red Top Mountain). All three parks are located within 75 miles of metro Atlanta. These sites were chosen due to high annual visitation rates and elevated racial/ethnic diversity among park visitors (based on anecdotal reports from state park managers and administrative officials in the Georgia Department of Natural Resources' Parks, Recreation, and Historic Sites Division). These parks also included similar facilities that offered an assortment of land and water-based recreation activities such as picnicking, swimming, camping, hiking, cycling, and boating (Table 1). Playgrounds and mini-golf courses were also available at each park, and all three parks contained historic sites with associated heritage interpretation facilities.

Data Collection & Instruments

Three data collection strategies were used concurrently to monitor the recreation activity and physical activity levels of diverse park visitors. The SOPARC represented an innovative, objective, observation-based evaluation tool that could be employed in multiple park settings. Two more conventional data collection techniques, intercept surveys and exit surveys, supported SOPARC data and provided a mechanism for validity and reliability assessment.

A pilot study was conducted at each of the three state parks between Memorial Day and Labor Day in 2009. The purpose of the pilot study was to evaluate the data collection procedures, survey instruments, interrelationships among questions, and efficacy of coding schemes (Dillman, Smyth, & Christian, 2009). During this phase, researchers conducted SOPARC observations (N=2,281 individuals observed in 23 sessions), intercept surveys (N=805 surveys collected), and exit surveys (N=189 vehicles surveyed). The pilot study data led to several revisions of survey structure and the revised implementation of SOPARC protocol. For example, the administration protocol of standing in a fixed target area was altered to include conducting observational scans while walking the length of the target area. This change was necessary due to the nature of highly crowded (often 350+ park visitors) target areas found in many state parks.

During the summer of 2010, more comprehensive data were collected using a sampling calendar to obtain a stratified random sample that accounted for temporal and spatial variation in visitor activity. The calendar considered all available days and hours during the data collection period by organizing four different categories: weekdays, Wednesdays (this was the only free admission day at Georgia State Parks), weekend days, and holiday weekends (Memorial Day, Independence Day, and Labor Day). Then, parks were randomly assigned *a priori* to each category to ensure that researchers visited each park on at least three weekdays, at least two Wednesdays, at least six weekend days, and at least one holiday weekend. Extra trips were added near the end of the summer to make up for dificits in any category resulting from unforeseen scheduling conflicts. Although this stratification system enabled researchers to maximize coverage across temporal and spatial scales, time constraints and travel-related challenges did not allow for complete coverage of all days at every park location. Further specific data

collection methods and instruments used during the full implementation of the study are described in more detail below.

SOPARC

The SOPARC provided trained observers with a snapshot of visitor activity patterns occurring in a designated area during a particular moment in time. In implementing this instrument, trained observers used an approach adapted from McKenzie et al. (2005) that systematically scanned a target area (i.e., an observation sweep moving from left to right) and recorded the gender, age (child, teen, adult, senior), race/ethnicity (White/White, Black/African American, Hispanic/Latino, Other), and physical activity level (sedentary, moderate, vigorous) of individuals in the target area. If visitors were physically active, the type of activity was also recorded.

To begin using SOPARC, two types of recreation hotspots (Cordell & Green, 2001), or specific areas of greatest recreation demand, were identified. These areas included: beaches with connecting picnic areas and parking lots at trailheads. These areas were popular among the majority of park users as potential locations for physical activity participation and were designated as target areas for conducting observations. Observational scans were conducted during four time intervals throughout the day (morning 7:00 a.m.-11:59 a.m., early afternoon 12:01 p.m. to 3:00 p.m., late afternoon 3:01 p.m. to 6:00 p.m., and evening 6:01 p.m. to 9:00 p.m.). Following SOPARC administration protocol, inter-coder reliability was assessed by employing multiple joint and separate coding sessions. During these sessions, observers simultaneously scanned target areas to test observers' independent judgments of the coding variables. Results were then compared between observers to fine tune and increase the consistency of recorded observations and coding.

Intercept Surveys

Self-administered intercept surveys available in English and Spanish were also conducted in the target areas and campgrounds. Survey instrument asked visitors about the activities they participated in along with basic questions assessing their socio-demographic background. The surveys also contained self-reported physical activity questions reflecting items used in international and national lifestyle surveys such as the International Physical Activity Questionnaire and the Behavioral Risk Fact Surveillance System (Craig et al., 2003). Surveys included definitions and specific examples of moderate and vigorous physical activity and asked visitors to distinguish their activity level. In addition to self-reported physical activity, surveys asked visitors to compare their use of state parks to other possible settings. Respondents were also asked to rate the value of different park features and facilities in promoting physical activity.

The self-administered intercept surveys were distributed in beach, picnic, and campground areas with a 91.49% response rate. In these areas, researchers approached every third park visitor aged 18 or older and inquired if they would be willing to complete a brief, survey about state park use.

Exit Surveys

Exit surveys were also used because they typically obtain more detailed information about visitors' length of stay and activity choices (English, Kocis, Zarnoch, & Arnold, 2001). Exit surveys were conducted at focal exit points in the parks. During exit surveys, researchers stopped every third vehicle passing through the exit point and asked visitors questions about their visit such as "How many people are in your car?" "How long have you been at the park today?" And, "What was the main activity during your visit?" While conducting the surveys, researchers

documented the gender and ethnicity of vehicle occupants. These surveys lasted approximately 15-30 seconds so as to not impede the flow of traffic exiting the park.

Results

SOPARC Results

Implementation Overview

In preparing for the implementation of SOPARC, three park settings (beach, picnic, and trailhead areas) were selected as target areas for each park. These areas were chosen due to high numbers of visitors and clear visibility across the area. Before beginning observations, selected areas were outlined using specific land markers (fence lines, bodies of water, trees, and permanent picnic tables) to establish observational boundaries. Several observational training sessions were conducted concurrently in each target area by dual observers in an effort to hone observational skills. During regular observational sessions, an observer would document the date, weather, location, and starting time. Next, the observer would start at the edge of the target area and walk the length of the target area recording visitors' characteristics (gender, age, race/ethnicity, physical activity level, and activity choice). Individual observations were recorded on SOPARC forms adapted from McKenzie et al, (2005). The duration of observational sessions was dependent upon the amount of visitors present and the location of target areas. Generally, however, an area with 50 visitors would last approximately 10 minutes, whereas, an area of 250 visitors was closer to 30 minutes.

General Visitation Patterns

From May to September of 2010, researchers counted 18,525 park visitors during 217 separate observation sessions in target areas in the three Georgia state parks (ranging from 4,355 to 8,005 people within each park). A factorial ANOVA model examined differences in total

visitors counted per observation session with respect to day of the week and time and their interactions: day of the week (weekday, free Wednesdays, Saturday, Sunday, and holiday), and time of the day (morning – before 12pm, early afternoon – 12pm to 3pm, late afternoon 3pm to 6pm, evening – after 6pm). Significant differences in visitor counts were observed for time of the day [$F(3,75) = 10.4$, $p < 0.001$, $\eta^2 = 0.15$]. Interactions were not statistically significant. Observations showed that visitor numbers were highest in target areas on weekends and holidays across the three parks and the late afternoon time period (3pm to 6pm) was when the largest number of visitors was observed in target areas in all parks.

Without controlling for the relative numbers in the populations surrounding the parks, general patterns of park visitation were evident across all parks. For example, relatively more Whites (50.9%) were seen than Latinos (36.1%) across all target areas in all parks. Whites (82.2%) were also observed more often than other groups of visitors at trailheads (82.2%) and beach areas (47.0%) across all parks. Visitation patterns to target areas among racial/ethnic groups differed by days of the week [$\chi^2(9,16464) = 1482.2$, $p < 0.001$, Cramer's V = 0.17]. Whites were more likely to visit state parks on weekdays and Saturdays. Most African American, Latino, and "Others" visited the beaches on weekends, and a majority of these weekend visitors came on Sundays. These observations also showed that target area visitation patterns among racial/ethnic groups differed by time of the day [$\chi^2(9,16464) = 727.1$, $p < 0.001$, Cramer's V = 0.12]. Whites were more likely to come to the beaches earlier, and African American and Latinos were more likely to stay later. Whites were more likely to visit to state parks on weekdays and Saturdays. Most African American, Latino, and "Others" visited the beaches on weekends, and a majority of these weekend visitors came on Sundays.

Physical Activity Metrics

Observations using SOPARC showed that, overall, a majority of state park visitors were active (45% were sedentary at the time of observation, 51.3% were engaged in moderate activity, and only 2.8% were engaged in vigorous activity). The most common activities observed in multi-use areas across all parks were swimming (45.3% of all visitors), walking (36.2%), playing in the sand (7.9%), and running (3.1%). The most common activities observed at trailheads across all parks were hiking (64.5%), mountain biking (11.9%), leisurely walking (8.1%), and playing on natural features or adjacent playgrounds (3.3%). Physical activity levels decreased with age [$\chi^2(6,16464) = 1956.2$, $p < 0.001$, Cramer's V = 0.24]: children were the most active group, followed by teens. Males tended to be more active in target areas than females across all age groups, but these differences were statistically significant for teens [$\chi^2(2,2515) = 33.6$, $p < 0.001$, Cramer's V = 0.12] and adults [$\chi^2(2,7629) = 64.4$, $p < 0.001$, Cramer's V = 0.09]. Swimming was most popular among African Americans (26.4%) and Latinos (23.7%). Walking was most popular among African Americans (25.2%). Playing in the sand was more common among Asians (4.9%) and Whites (4.1%). Ball games were most common among Hispanic/Latinos (3.4%).

Reliability

The SOPARC reliability were collected by two researchers simultaneously performing independent observations in the same target areas during the 2009 pilot study and the primary 2010 study. During the 2010 study, paired observers conducted 13 observation sessions, observing a total of 2,827 individuals across the three focal parks. The correlation analyses of these data were conducted at four different levels by assessing agreements of paired observations of visitors by: 1) total number; 2) race/ethnicity; 3) age group; and 4) number of males and

females in the target area (Table 2). Significant correlations were found in inter-observer agreement scores across the assessed categories using Pearson's correlation and single/average measures interclass correlations. During the pilot study, observers experienced difficulty in reaching conclusions on the percentage of seniors in target areas. This challenge was accounted for by reviewing self-reported age data on random samples of intercept surveys in connection with individual SOPARC observations. Which, subsequently, resulted in higher correlations of paired observations of seniors during the 2010 summer.

Additional measures to ensure paired observers were estimating park visitors' race correctly were conducted throughout the data collection period by comparing observers estimations of race with self-reported intercept data. This process included observers estimating the race of randomly designated visitors while giving them an intercept survey. After collecting the survey, the observers would then compare their estimations to those reported by the visitor. Analysis of these comparisons revealed observer's racial estimations were correct 97.3% of the time.

Intercept Surveys Results

Implementation Overview

Bilingual researchers approached every third adult visitor in designated day use areas (beaches and picnic sites) and asked if they would be willing to complete a brief one-page park survey. Visitors were presented the survey with a clipboard and pencil and told the researcher would return within approximately 30 minutes to collect the completed survey. When collecting surveys, researchers thanked visitors for their time and answered any questions regarding survey content. Across all parks and day use areas, researchers collected an average of 32 surveys per hour.

General Visitation Patterns

Intercept surveys (*N*=5,192 surveys collected during 116 survey sessions) were administered concurrently with SOPARC observations and exit surveys. Intercept survey data yielded information about visitation trends. For example, females (58.6%) frequented day use areas more than males (41.4%). Without controlling for the race of the general population in the area surrounding parks, the intercept surveys showed that Whites (51.7%) and Latinos (30.9%) represented the largest portion of visitors observed across day use areas in all parks. The mean group size for state park visitors (excluding large groups or special events with more than 30 people) in day use areas was 7.4 ± 0.20 people. About 13% of day use groups had two or fewer people, 50% of day use groups had 5 or fewer people, and 20% of day use groups had 10 or more people. Group size in day use areas was related to respondents' race/ethnicity [$F(5,3072) = 50.7$, $p < 0.001$, $\eta^2 = 0.08$]. Latinos (9.36), Asians (9.15), and African Americans (8.74) tended to recreate in groups with more individuals than Whites (5.98). Group size in day use areas did not differ across the three focal parks [$F(2,3135) = 1.2$, $p = 0.317$].

Intercept surveys showed that state park visitors spent an average of 5.07 ± 0.16 hours in the park. Total time in park differed by race/ethnicity [$F(4,737) = 13.1$, $p < 0.001$, $\eta^2 = 0.07$], with Whites spending significantly less time than individuals in other racial/ethnic groups. On average, Latinos spent the longest amount of time in the park during day use visits (M = 5.71, SD = 2.28). This pattern was also evident when examining the distribution of visit lengths across racial/ethnic groups (Table 3).

Exit surveys provided more expansive data regarding visitors' total time in park, accounting for all potential activity zones and not just recreation hotspots. According to exit survey for all visitors' data across all parks (excluding workers and volunteers, n=3198), 8.1% of

visitors spent at least one night in a state park. Considering only day use visitors, about 18.8% of visitors spent one hour or less in the park and approximately 38.2% of visitors spent four hours or more in the park (M = 3.36 ± 0.05 hours). Total time in park varied among the three parks, $F(4,737) = 3.3$, $p = 0.037$. Day use visitors tended to stay longer at Red Top Mountain (M = 3.47 ± 0.09 hours) than either Fort Yargo (M = 3.30 ± 0.08 hours) or Fort Mountain (M = 3.20 ± 0.17 hours). When only the day use recreation hotspots were considered, the mean time visitors reported spending in the park increased at each site: Red Top Mountain (M = 3.94 ± 0.10 hours), Fort Yargo (M = 3.79 ± 0.09 hours) and Fort Mountain (M = 3.73 ± 0.13 hours). These estimates were slightly lower than the reported "time in park" values obtained via intercept surveys.

Physical Activity Metrics

Self-reported measures of park-based physical activity were used in intercept surveys to assess active time in state parks among different demographic groups. About 15% of the adults reported no physical activity; 65.6% at least one hour of moderate activity during their trip and 41.8% participated in at least 30 minutes of vigorous activity. Only 8.8% of adults participated in five or more hours of physical activity at any level. Conversely, children displayed higher levels of moderate (M = 2.25 hours, SD = 1.48) and vigorous (M = 0.88 hours, SD = 0.98) park-based physical activity than adults. Mean adult physical activity time during state park day use visits did not differ significantly by race/ethnicity. Mean moderate [M = 1.44 hours, SD = 1.32; $F(4,737) = 0.7$, $p = 0.604$] and vigorous [M = 0.54 hours, SD = 0.81; $F(4,737) = 2.6$, $p = 0.034$] physical activity time was approximately equal across demographic groups. The physical activity results for adults were also similar across racial/ethnic groups [M = 0.40 hours, SD = 0.32; $F(4,737) = 1.0$, $p = 0.411$]. Unlike adults, the mean time spent by children engaging in child physical activity differed by race/ethnicity. For example, White children demonstrated slightly

higher levels of moderate activity [$F(4,725) = 2.3$, $p = 0.055$] while Latino and African American children displayed slightly higher levels of vigorous activity [$F(4,725) = 1.7$, $p = 0.139$].

Exit Survey Results

Implementation Overview

In each park, the exits with the most visitor traffic were selected as locations for administering exit surveys. Exit surveys were conducted in sessions that lasted 30 minutes during four time intervals (morning, 7:00 a.m.- 11:59 a.m.; early afternoon, 12:00 p.m.-2:59 p.m.; late afternoon, 3:00 p.m.- 5:59 p.m.; and evening, 6:00 p.m.-9:00 p.m.). During exit survey sessions, researchers would stand on the side of the road, adjacent to park structure (exit kiosk or park sign), and stop every third vehicle by raising their hand and approaching the vehicle. The researcher would then conduct the verbal exit survey and document responses using a data collection form, a clipboard, and a handheld mechanical counter. Total number of vehicles varied during each 30-minute session ranging from 1-43 surveyed vehicles depending on park location, weather, time of day, day of week, and holidays and special events.

General Visitation Patterns

Exit surveys (N=1113 vehicles surveyed during 139 sessions) provided more expansive data regarding visitors' total time in park, accounting for all potential activity zones and not just target areas and campgrounds. Because of this, and the fact that park visitors would often exit and return to the park during a survey session, visitor patterns from exit surveys differed slightly more than SOPARC and intercept survey data. However, data suggested that more cars and people were leaving parks on weekends and holidays (63%) in the late afternoon or evening (65%) than at other days and times. Exit surveys also provided more specific information about

visitor activities within state parks. Swimming and beach activities were the most popular at all parks (49.1%), followed by picnics and cookouts (26.1%).

According to exit surveys for all visitor data across all parks (excluding workers and volunteers, n=3198), approximately 18.8% of visitors spent one hour or less in the park and 38.2% of visitors spent four hours or more in the park (M = 3.36 ± 0.05 hours). Total time in park varied among the three parks [$F(4,737) = 3.3$, $p = 0.037$]. Fort Mountain (M = 3.20 ± 0.17 hours) and Fort Yargo (M = 3.30 ± 0.08 hours) day use visitors did not tend to stay as long as Red Top Mountain (M = 3.47 ± 0.09 hours) day use visitors. When only the day use areas were considered, the mean time visitors reported spending in the park increased at each site: Fort Mountain (M = 3.73 ± 0.13 hours), Fort Yargo (M = 3.79 ± 0.09 hours), and Red Top Mountain (M = 3.94 ± 0.10 hours). These estimates are slightly lower than the reported "time in park" values obtained via intercept surveys.

Exit surveys showed that 64.8% of vehicles surveyed had visited target areas during their visits to state parks. Excluding park employees, the percentage of vehicles visiting hotspots increased to 70.7% (n=1020). The percentage of vehicles visiting hotspots varied among the three parks [$\chi^2(2,1020) = 21.4$, $p < 0.001$, Cramer's V = 0.15]: Fort Mountain (61.5%), Fort Yargo (69.2%), Red Top Mountain (79.2%). When these data were weighted by the total number of people in each car, exit surveys showed that 75.5% of total people in the parks visited target areas (n=3341). Excluding park employees, the number of visitors in target areas increased to 78.8% (n=3202). The percentage of visitors in target areas varied among the three parks [$\chi^2(2,3202) = 56.8$, $p < 0.001$, Cramer's V = 0.13]: Fort Mountain (70.3%), Fort Yargo (78.5%), Red Top Mountain (84.9%).

Validity

Data from the intercept and exit surveys were used to compare observations from the SOPARC tool. Comparisons revealed several strong relationships between results obtained using each of the different sampling strategies in day-use/target areas. Up to this point, data (total counts and percentages) of visitor patterns have been reported in the form of total counts and percentages across all parks and distinguished by each of the three focal parks. The following is a description of park visitor activity in day-use/target areas at one selected focal park (Red Top Mountain State Park, selected due to the large number of paired observation sample obtained for SOPARC). This park was intentionally selected to provide comparisons of visitation percentages as shown by the three data collection strategies for the purpose of establishing the validity of SOPARC tool through the triangulation of results.

For example, all three instruments recorded similar amounts for the proportion of Whites (SOPRAC, 51.8%; intercept surveys, 47.4%; exit surveys, 54.7%) followed by Hispanics (SOPARC, 36.2%; intercept surveys, 35.6%; exit surveys, 26.7%), African Americans (SOPARC, 8.7%; intercept surveys, 9.3%; exit surveys, 9.4%), and visitors of "Other" racial/ethnic groups (SOPARC, 3.3%; intercept surveys, 5.6%; exit surveys, 8.96%) (Figure 3.1). Agreements were also high for the proportion of males (SOPARC, 45%; intercept surveys, 38.2%; exit surveys, 48.9%) and females (SOPARC, 55%; intercept surveys, 57%, exit surveys, 51%) (Figure 3.2). Similarities were found between children (SOPARC, 50.8%; exit surveys, 45.2%) and adults (SOPRAC, 49.2%; exit surveys, 54.7%) (Figure 3.3).

Discussion and Implications

State Park Use Patterns: Comparing Different Instruments

While previous research suggests participation use patterns differ by race/ethnicity in outdoor settings, such as community parks, this study is the first to investigate differences of race/ethnicity in state parks using three different methods of data collection to triangulate results. Results from this study indicated there are strong correlations in activity choices between racial/ethnic groups, and also by factors such as overall group size, time and day of visits, physical activity levels, number of annual visits, and number of children in groups assessed by different data collection methods (e.g., SOPARC, intercept and exit surveys). The following discussion examines the implications of these results for state park managers.

As the socio-demographic composition of the U.S. population continues to change there is a need to reevaluate state infrastructures and management practices to ensure that growing underserved populations have access to natural areas. However, obtaining current data on visitor preferences and trends has been difficult for park managers as many state parks are experiencing financial constraints as state legislatures focus budget cuts on state parks (National Conference of State Legislatures, 2010). These budgetary challenges result in the loss of park staff, which directly affects the resources manager's ability to gather data that will influence sound management decisions. Hence, finding solutions to these challenges that will provide solid data on which to base current and future management objectives should be a priority before implementing any new programs and initiatives to increase physical activity participation or to promote visitation by underrepresented racial and ethnic groups. This study suggests that SOPARC could be implemented by state park managers, as a viable stand-alone method to

provide baseline understanding of visitor trends (e.g., visitor counts, age, race/ethnicity, physical activity level, and participation type).

McKenzie et al., (2006) explained that unlike other visitor assessment tools that rely heavily on individual subjects and self-reported values, SOPARC uses "direct observation, focuses on group behavior, and its unit of analysis is a target area, not an individual" (p. 7). As a result, the implementation of this tool in state parks that have large, public open areas becomes useful as individual visitors arrive and depart at different times. Another managerial benefit is that training park staff can be conducted in short time periods with low costs. Most studies using SOPARC have provided instruction to observers during a one to two day workshop (McKenzie, et al., 2006; Parra, et al., 2010; Shores & West, 2008). While actual observational sessions may last up to 30 minutes for highly visited target areas (e.g., 300+ visitors), the time spent is minimal compared to traditional visitor assessment tools. Furthermore, trained park staff can conduct observational sessions throughout the day using minimal time while adhering to other park employee duties before and after observational sessions. This frequent exposure to high use areas encourages visibility and interactions between park staff and visitors. As these interactions increase the level of constraints many park visitors experience decreases resulting in increased physical activity participation, particularly among racial/ethnic visitors (Stanis, Schneider, Chavez, & Shinew, 2009).

Utility of SOPARC in a State Park Setting

Reliability of SOPARC

As previously suggested, the implementation of SOPARC can provide park managers with a baseline understanding of who visitors are and the patterns of recreation and physical activity participation they exhibit while in state parks. In this study, the reliability of SOPARC

was tested by comparing independent observations during a pilot study in 2009. In 2010, paired observation sessions continued in the three Georgia state parks. Correlation analyses were conducted at four different levels by assessing agreements of paired observations of visitors by visitor demographics (Table 2). Inter-observer agreement scores on the majority of visitor characteristics recorded were very high (Persons Correlation Coefficient $\geq .90$). Inter-observer agreement scores for seniors were low (Persons Correlation Coefficient $\leq .38$). This result could have been due to the limited numbers of seniors observed in target areas. Observers found the category of over 60 years of age difficult to identify.

In the future, research implementing SOPARC could increase the reliability by training observers in not only the logistics of SOPARC, but in reaching consistent, grounded observations of park visitors. For example, training should include facial recognition exercises that prepare observers to identify the differences and similarities of racial/ethnic groups and age-related characteristics. Learning to recognize these nuances can assist in the overall accuracy of associated observational data, however, establishing broadly defined race and age categories can further achieve consistency across different observers and multiple observational sessions. Conversely, establishing categorical groups for park visitors that are too narrow can also deter from the accuracy and consistency of observational data.

This study used target areas as pre-established observational sites for the implementation of SOPARC. While these target areas included similar geographic locations within each focal park, each observational site was different due to resource locations and unique aspects of each park. As a result, each observational site contained purposefully selected parameters to direct and ensure the congruency of observational sessions across the duration of this study. It is therefore

suggested that the establishment of well-defined observation spaces will further increase the reliability of SOPARC data in future studies.

Validity of SOPARC

In addition to using established coding systems and observational protocol, developed by McKenzie et al. (2006), this research implemented intercept and exit surveys on concurrent days of observational sessions to validate SOPARC as a management tool. Results showed very strong similarities in the overall percentages of visitors by race/ethnicity, gender, and age; suggesting SOPARC is a valid tool for determining visitation patterns and visitor trends in state parks.

This study not only compared the numerical data obtained by SOPARC, intercept and exit surveys, but also examined the implementation of said strategies and the associated benefits and limitations between them. As previously stated, intercept and exit surveys can be an effective data collection strategy providing surveys instruments are designed properly and administered efficiently following a rigorous pilot test. However, there are some significant limitations to these park-based surveys in that they are labor and cost intensive. Surveys can also be interruptive to park visitors' experience. The implementation of SOPARC presents a viable alternative to traditional data collection strategies in that, as an observational tool, it is less obstructive to visitors. Other benefits involve the low cost associated with conducting observations and the elevated amount of individual observations available during short periods of time. One drawback over using SOPARC over surveys, is there are limited categories of data available. While surveys can ask visitors a variety of questions from pre-existing scales to capture visitor opinions, SOPARC functions solely as an observational tool and cannot collect visitor opinions or feedback. However, for managers seeking baseline data on visitor patterns

and physical activity in parks, SOPARC can be considered a valid, stand-alone option that can produce reliable data.

Limitations

This research provides useful information for state park managers interested in gaining a baseline understanding of demographic visitor trends, however, it has some limitations that need to be acknowledged. First, as mentioned previously, the reliability and validity of using SOPARC as a management tool was partially established through the efforts involving two trained observers and two separate data collection techniques. The correlation analyses of paired observations along with the comparison of SOPARC with intercept and exit survey data required additional resources than simply having one trained observer working. While combined methods served to increase the reliability of demographic estimations, they required additional resources that may be limiting factors to those desiring these types of data from one observer using solely SOPARC.

Another limitation of using SOPARC noted by previous research is that there is a limit to the number of variables observers can record simultaneously during a scanning period. This limitation was evident during this study on high visitation days when several hundred people were active in a single observation area. During these high volume days, it is possible two visitors are observed and counted more than once. Hence, the need for inter-rated reliability measures described previously.

Also, while SOPARC may account for visitors in observation zones, it cannot account for all visitors for visitors in all park zones. Consequently, some visitors may be omitted. Exit survey data from this study suggested that the majority of visitors (80%) frequented day use areas where SOPARC observations were conducted. However, some visitors (20%) were not accounted for.

The baseline demographics of these unobserved visitors may have been different from the study population.

Finally, racial categories used in SOPARC are static in nature and do not account for visitors' ethnicity and the associated subtle properties and nuances of individual groups' cultural constructs. For example, categorizing visitors into socially constructed categories may be stereotyping certain racial groups that may hold different social backgrounds but share the same skin color (e.g., darker-skinned Latinos could be English speaking Dominicans, Cubans, or Puerto Ricans). As a result of this limitation, it is suggested that managers implementing SOPARC recognize the restrictions in making inferences beyond very basic, baseline demographic visitor trends.

Recommendations and Conclusion

The purpose of this study was to assess state park visitor patterns using multiple techniques and evaluate the specific potential of SOPARC as a data collection tool in Georgia state parks. While previous research has implemented SOPARC in the U.S. and Latin America, this study is the first to describe the reliability and validity of SOPARC while examining visitor patterns in state parks using two other data collection methods simultaneously (e.g., visitor and exit surveys) to triangulate results. Results highlighted advantages and disadvantages associated with each data collection strategy and provided new insight regarding the utility of each tool for state park managers (Table 4).

While state parks often rely on tradition data collection strategies to inform management decisions, the use of SOPARC may be the most effective tool for obtaining baseline data of visitor use patterns across geographical and temporal scales. For example, this study effectively used SOPARC to obtain accurate visitor assessment data. State park managers can also use

SOPARC by training their employees, in short periods of time, and with minimal costs, how to implement SOPARC in a variety of outdoor settings. This study has described the robustness of this tool in coordination with intercept and exit surveys, the implementation of which traditionally require longer periods of time and increased costs. In comparing the results of these three tools, it is suggested that SOPARC be implemented by state park managers, as a stand-alone method to provide a basic understanding of visitor trends (e.g., visitor counts, age, race/ethnicity, physical activity level, and participation type). These data will allow managers to develop a better understanding of who their visitors are and the preferred participation preferences of different visitor groups. Using this information, managers may be able to improve their parks by repositioning facilities and programing efforts to help increase park-based physical activity among visitors who may be predisposed to sedentary activities.

Before implementing SOPARC, state park managers would benefit from conducting thorough training sessions with all staff involved in visitor assessment. Details of training options and suggestions have been provided in this and previous other studies. Having a diverse, well-rounded staff that is competent at administering SOPARC can benefit management in securing park visitor data.

State park managers may also find value in collaborating with local organizations and agencies in comparing SOPARC data for offsite parks in similar geographic settings. Obtaining these data can provide comparisons upon which management conclusions and visitation trends may be assessed. For example, obtaining a sample of demographic characteristics of visitors to other parks will assist in establishing a standard to compare state park visitation data from which managers may be able to identify demographic groups that are underrepresented in state parks. State park systems may also benefit from collaborating with universities as research partners to

further examine visitor patterns and understand issues affecting racial/ethnic visitor patterns. These types of discoveries are necessary in detecting the barriers that constrain individuals from visiting state parks and will be increasingly useful and necessary in the immediate future as the population continues to change. As visitor demographics change, visitor assessment strategies should also evolve to help managers respond to the needs and preferences of a diversifying clientele by being able to implement monitoring strategies, such as SOPARC, that quickly and efficiently provide an overview of visitation patterns.

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Table 3.1

Description of Georgia State Parks Sampled During Summer 2010

State Park	Location	2010 Park Visitation (Jan.-Dec.)	Facilities
Fort Mountain	Chatsworth, GA Murray County	129,719	3,712 acres 17-acre lake Swimming beach 41 miles of hiking/biking trails 47 campsites 7 picnic shelters
Fort Yargo	Winder, GA Barrow County	382,061	1,815 acres 260-acre lake Swimming beach 15 miles of hiking/biking trails 74 campsites 5 picnic shelters
Red Top Mountain	Cartersville, GA Bartow County	721,956	1,776 acres 12,010-acre lake (Allatoona) Swimming beach 17 miles of hiking/biking trails 92 campsites 7 picnic shelters

Table 3.2

Summary of Pearson Correlation Coefficients, Single Measure Intra-Class Correlations, and Average Measures Intra-Class Correlations During 2009 and 2010 Data Collection Periods

	2009 SOPARC Reliability Measures[A]			2010 SOPARC Reliability Measures[B]		
	r	**Single Measures ICC**	**Average Measures ICC**	***r***	**Single Measures ICC**	**Average Measures ICC**
Total Visitors	0.997	0.989	0.995	0.99	0.99	0.99
Race						
White	0.992	0.985	0.993	0.995	0.998	0.998
African American	0.992	0.992	0.966	0.986	0.992	0.992
Latino	0.982	0.968	0.984	0.988	0.988	0.988
Others	0.998	0.993	0.997	0.979	0.962	0.962
Age						
Child	0.96	0.939	0.968	0.969	0.985	0.985
Teen	0.912	0.908	0.952	0.888	0.942	0.942
Adult	0.964	0.963	0.981	0.995	0.997	0.997
Senior	0.388	0.225	0.371	0.927	0.97	0.97
Gender						
Male	0.987	0.981	0.99	0.992	0.996	0.996
Female	0.999	0.992	0.996	0.996	0.998	0.998

A-Regularly paired observation sessions (*N*=11) accounted for 2192 individuals during the 2009 pilot study

B- Regularly paired observation sessions (*N*=13) accounted for 2827 individuals during the 2010 study

Table 3.3

Distribution of Day Use Visitors' (% of total visitors) Total Time in State Parks (by Race/Ethnicity)

Race/Ethnicity	n	> 2 hrs.	> 4 hrs.	> 6 hrs.	> 8 hrs.
White	388	89.2	47.7	14.4	2.6
Latino	249	95.2	71.9	33.3	12.4
Black	59	89.8	72.9	37.3	15.3
Asian	29	100.0	65.5	27.6	10.3
Other	15	100.0	80.0	33.3	26.7
TOTAL	758	92.0	59.4	23.5	7.3

Table 3.4

Data Collection Tool Overview

	SOPARC	Intercept Surveys	Exit Surveys
Strengths	Objective measure of visitor behavior, easy to implement, noninvasive to visitors, large amounts of baseline data in relatively short time period	Potential for detailed visitor data (preferences, demographics, scales, etc.), possible meaningful visitor responses	Accounts for all park visitors, more accurate length of stay and activity information
Weaknesses	Depth of information limited, requires observer hours and specific training, only covers certain park areas, potential for duplicate counts	Requires creation of valid survey instrument, costs associated with administration, must have willing participants	Depth of information limited, short data collection window, potential for duplicate counts, relies on visitor recall

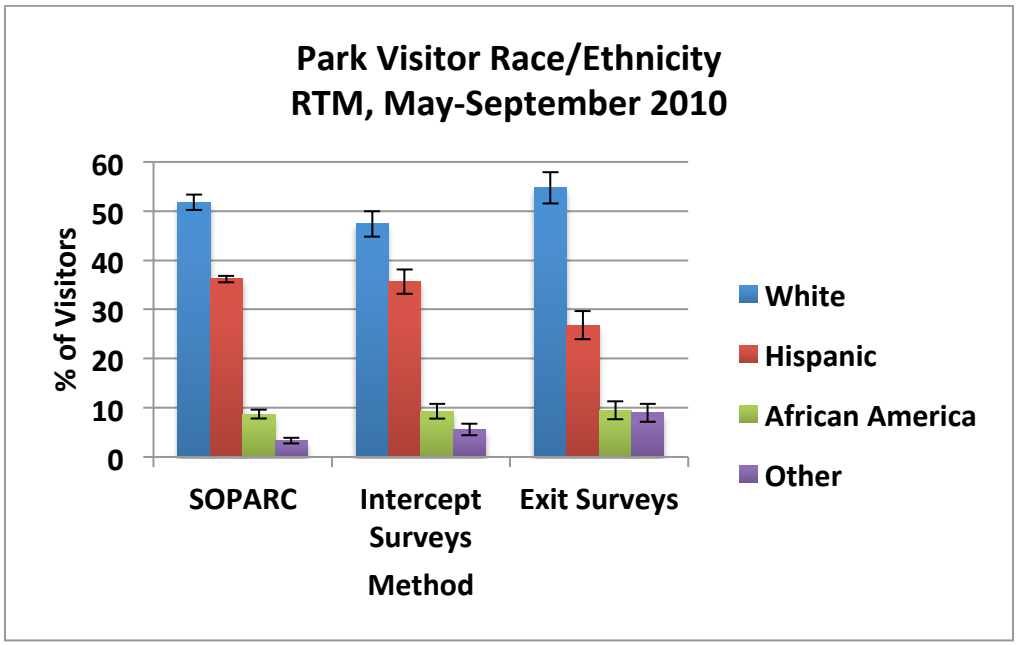

Figure 3.1. A comparison of park visitor race/ethnicity data by SOPARC, intercept surveys, and exit surveys at Red Top Mountain State Park.

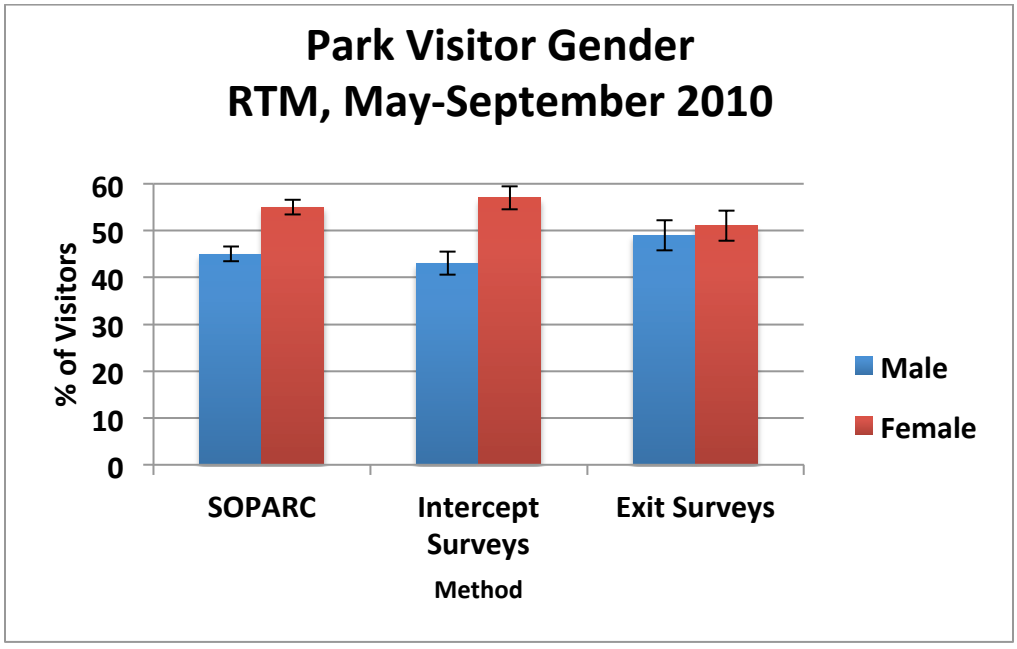

Figure 3.2. A comparison of park visitor gender data by SOPARC, intercept surveys, and exit surveys at Red Top Mountain State Park.

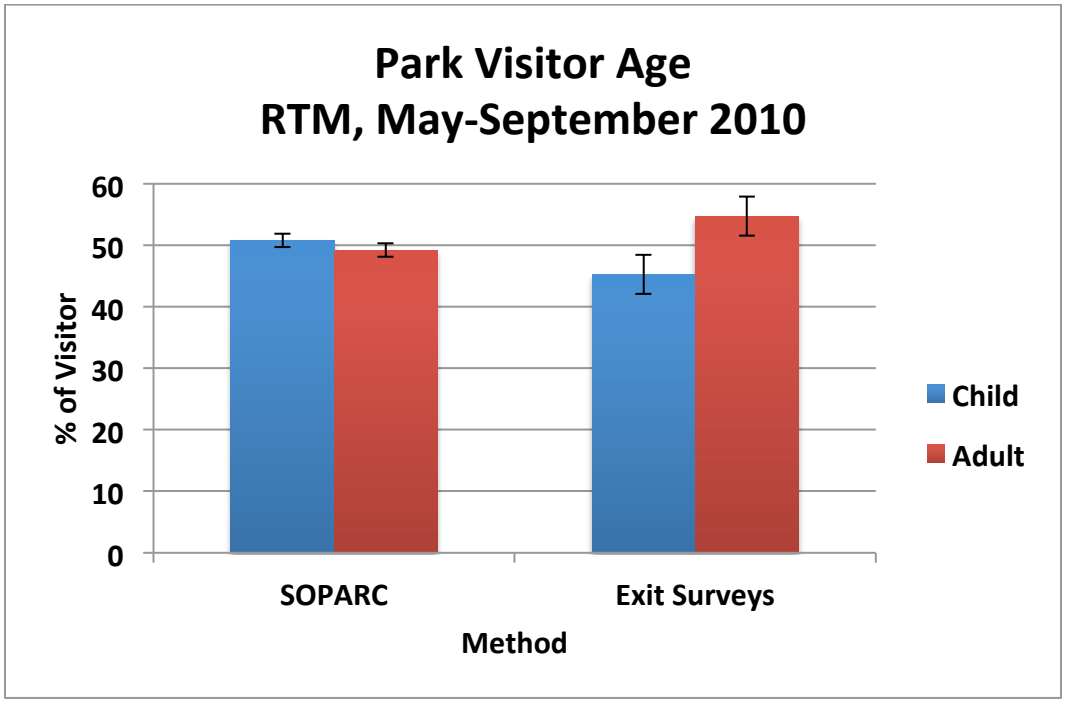

Figure 3.3. A comparison of park visitor age data by SOPARC and exit surveys at Red Top Mountain State Park (intercept surveys were only completed by adult park visitors

CHAPTER 4

STATE PARK PARTICIPATION PREFERENCES, MOTIVATION, AND BENEFITS AMONG DIVERSE VISITORS[3]

[3] Whiting, J. W., Larson, L. R., & Green, G. T. To be submitted to *Journal of Leisure Research.*

Abstract

Given the recent dramatic changes in the U.S. population, this study examined outdoor recreation participation preferences, motivations to recreate, and outdoor recreation perceived benefits as potentially important factors influencing Georgia state parks. Onsite and offsite data were collected using intercept and exit surveys in three state parks (onsite) and eight flea markets (offsite) in northern Georgia. Results varied by different demographic variables (e.g., race/ethnicity, income, age, and gender) across preferences, motivations, and perceived benefits. Overall respondents preferred maintained outdoor areas to undeveloped, natural settings. All respondents, particularly African Americans, suggested their state park visitation would increase if park facilities (e.g., restrooms and showers) were maintained and kept clean. Social elements of outdoor recreation (i.e., spending time with friends and family, meeting new people) were also preferred and motivated respondents to participate. Hispanic/Latino respondents were more motivated by social aspects of outdoor recreation than other groups. The most significant perceived benefit for outdoor recreation across all groups was improved quality of life. Findings suggest state parks play a prominent role in the lives of Georgia residents. Managers may benefit presenting parks holistically, as vehicles with the capacity to improve quality of life. Promoting socially based outdoor recreation programs may also be effective strategies for encouraging park visitation.

Introduction

According to the U.S. census, the United States population is forecasted to increase from 282.1 to 419.9 million between 2000 and 2050, and will become increasingly diversified in terms of race and ethnicity (Ennis, Rios-Vargas, Albert, 2011; U.S. Bureau of the Census, 2008). Many areas once populated homogenously with White individuals are now becoming racially diverse

communities. In fact, Census data indicates that the growth rates of ethnically diverse groups will exceed the overall growth rate of the U.S. population over the next fifty years (Ortman & Guarneri, 2009). In the past, African-Americans were viewed as the dominant ethnic group after Whites. However, Hispanics are now the fastest growing group in the nation; in 2008, the Hispanic population surpassed 45 million and comprised 15 percent of the U.S. population (U.S. Bureau of the Census, 2008).

These impending dramatic changes in population demographics present a significant challenge for the management of public lands (Cordell, Betz, Mou, 2011). Of particular concern, is that park managers might not be able to meet the recreational needs, preferences, and expectations of a rapidly diversifying nation whose preferences are not presently well understood, or served (Johnson & English, 2007). Other troubling aspects are that ethnic and racial minority groups are historically underrepresented in terms of overall visitation in natural resource areas, specifically, public parks (Cutts, Darby, Boone, & Brewis, 2009). Park managers are also concerned about where the next generation of stewards of our natural resources and environment will come from (Dawson & Hendee, 2008).

In terms of visitation, many parks that provide outdoor recreation opportunities have experienced declining visitation in the past five years (Mowen, Payne, & Scott, 2005; Pergams & Zaradic, 2006). Along with this drop in visitation, many public land agencies have faced yearly decreases in their funding levels. In fact, due to additional budget cuts in 2008-2009, many public land agencies are now left with no option but to close or outsource some existing parks that are already operating with reduced staff and limited resources (National Conference of State Legislatures, 2010). Visitation and funding for Georgia's state parks have mirrored many of the same challenges that the majority of outdoor recreation venues face on a national level as they

have been identified as one of the top two most affected park systems in the United States (Cordell, Betz, & Mou, 2011). However, despite these fiscal challenges, state parks continually strive to be relevant and to provide quality recreation opportunities to their visitors. Hence, the need for state park managers to better understand the cultural needs, preferences, and expectations of their diversifying racial and ethnic visitors is more crucial now then ever before (Li, Absher, Graefe, & Hsu, 2008).

With the decline in visitation, state park managers are interested in the attributes that encourage people to visit their parks and recreational areas. Understanding the preferences different racial/ethnic groups have while visiting parks along with their motivations and perceived benefits may be valuable to those tasked with the future planning and management of many natural resource venues (Kyle, Graefe, & Manning, 2005). Furthermore, by examining how people recreate in natural areas, managers may be able to improve the facilities and services under their direction to better meet the needs of their existing visitors. Hence, this study examined the preferences, motivations, and perceived benefits of diverse park visitors in Georgia state parks.

Theoretical Background

Public land managers are faced with multiple challenges in regards to maintaining the relevancy and availability of parks and natural areas amongst a growingly diverse population (Abercrombie et al., 2008; Gobster, 2002; Moore, Roux, Evenson, McGinn, & Brines, 2008). In seeking solutions to these challenges, public land managers have begun to examine the opinions and attitudes of individuals visiting parks and natural areas. Of particular interest are the preferences visitors have, their motivations to recreate, and the perceived benefits they receive from their participation.

Outdoor Recreation Participation Preferences

Participation in outdoor recreation is often influenced by socio-demographic variables such as race/ethnicity (Chavez, 2002, 2007; Cordell et al., 2004; Johnson & English, 2007). As a result, studies frequently examine national trends of outdoor recreation participation preferences by these variables (Cordell, Betz, & Mou, 2011; Cordell, Betz, & Green, 2008). For example, results from the National Survey of Recreation and the Environment (NSRE) described population growth and diversification as it relates to changing preferences in outdoor recreation participation (Cordell, et al., 2011). These findings suggested a possible correlation with the shifting uses of land and water resources and the growth and diversification of the population. For example, while overall participation in many nature-based activities has increased during the past two decades, consumptive activities (e.g., hunting and fishing) have decreased in popularity as non-consumptive activities (e.g., bird watching and nature photography) have increased. Other participation preferences suggest a growing interest in water-based activities as over 60 percent of the U.S. population participate in swimming, visiting beach areas, kayaking, canoeing, and rafting in the past year (Cordell, et al., 2004, Jennings, 2007). Likewise, preferences for adventure-based activities such as rock-climbing, snow skiing and boarding, and backpacking have increased in recent years (Ewert, 2011).

Other research has specifically examined the preferences of racial/ethnic minority groups involved in outdoor recreation. One study examined the physical activity preferences of Latino visitors to outdoor recreation areas (Burk, Shinew, & Stodolska, 2011). Findings from this study confirmed previous research suggesting racial/ethnic minorities (Latinos in this case) experience lower rates of physical activity in their leisure time than other groups and therefore may suffer from higher rates of obesity and other diseases associated with the lack of activity (Centers for

Disease Control and Preventions, 2010). Burk, et al. (2011) also found that Latino women spent significantly less time walking than Latino men each day and Latinos generally preferred engaging in physical activity in an outdoor environment over established indoor locations.

In addition to investigating the physical activity preferences of racial/ethnic minorities, research has examined other types of outdoor recreation participation preferences such as: site amenity and site attribute preference, activity preferences, social group preferences, and pay preferences. Research indicates that many groups prefer to recreate in larger groups with more children such as Latino visitors that often include friends and extended families in their outdoor experiences (Gobster, 2002; Stodolska, Shinew, & Li, 2010). For these groups, picnicking tends to be an all day event that includes onsite preparation of several meals (Carr & Chavez, 1993). Similarly, African Americans often prefer to experience outdoor recreation in groups with multiple people. African Americans desire for established natural areas that are well lit may relate back to collective memories of hardships and violence endured by their ancestors in wildland settings (Johnson & Bowker, 2004).

Outdoor recreation preferences are often influenced by the motivating factors that drive participation. These factors can include themes of challenge, exploration, experiencing nature, relaxation, and social contact (Kauffman & Graefe, 1984; Lee, Graefe, & Li, 2007; Williams, Schreyer, & Knopf, 1990). Examining these types of motivations can provide theoretical and empirical approaches to segment attitudes and behaviors of individuals who participate in outdoor recreation activities. Furthermore, understanding participant motivations can provide managers the ability to reduce possible conflicts between recreational users while maximizing human benefits (Manfredo, et al., 1996).

Motivations to Recreate

Early motivational theory research suggested recreation experiences could be viewed as behavioral pursuits that resulted in the achievement of physical and psychological goals (Driver & Tocher, 1970). From this conceptualization, the recreation experience was viewed as a series of psychological outcomes that were desired as a result of participation (Driver, 1976; Driver & Brown, 1975). This theory explains why people participate in recreation activities and offers insight into how involvement might benefit each individual (Manfredo, et al., 1996). These early insights were used by management attempting to understand how factors of motivation affected their constituents' activity choice and setting preference. Managers attempted to single out the experiences their constituents desired and believed this process of clarification "could be used in a wide array of planning and management tasks such as clarifying supply and demand, developing management objectives, avoiding conflict, and identifying recreation substitutes" (Manfredo, et al., 1996 p. 190).

This process of structured consideration guided recreation programing during the 1970s and eventually brought about the creation of the Recreation Opportunity Spectrum (ROS) and Recreation Experience Preference (REP) scale (Driver, 1977; Driver, Brown, Stankey, & Gregoire, 1987). These typologies provide managers with an array of recreation opportunities for consideration when planning for people's recreation as they take into account factors such as settings, activities, personnel, concepts of interest, needs, and preferences. More importantly, these typologies are often used in coordination with motivational theory when considering recreational programing.

In addition to using motivational theory, the ROS framework, and REP scale, management also historically examined expectancy-value models developed by Lawler (1973).

In an effort to understand participation in outdoor recreation, Lawler (1963), suggested specific behaviors resulted from individual's desire to satisfy specific needs. Lawler's research investigating organizational behavior suggested that motivation could be seen as different types of expectations. Expectations were framed as terminal and instrumental. Terminal expectations were considered valued long-term goals (e.g., social recognition, family solidarity, high social affiliation) (Manfredo, Driver, & Tarrant, 1996). Instrumental expectations "refer to the relationship between effort (e.g., absentee rate, production rate) and performance outcomes (e.g., more pay, more praise) which, then lead to the instrumental expectations (Kyle, Absher, & Hammitt, 2005). Hence, the expectancy-value model was considered by managers a process directed toward logical, programming that allowed them to view motivations to participate in outdoor recreation activities as way to meet certain physical and psychological needs (Kyle, Absher, et al., 2005).

Today, recreation managers still use the ROS framework and the REP scale and strive to consider the motivations and expectations that participants have for participating in certain outdoor recreation activities. Understanding that race/ethnicity directly affects motivations and value-expectations of participants can be information of great worth to managers striving to meet the needs of an ever diversifying public. Furthermore, motivations that influence individuals to pursue recreation activities are often a direct result of the desired benefits individuals seek from their participation.

Outdoor Recreation Benefits

Perceived benefits from outdoor recreation participation can be classified into two types: tangible and intangible. Tangible benefits can include physical health and economic impact from tourism related activities in local communities (Kocis, 2007). Intangible benefits, however, are

viewed as internal factors such as stress reduction, social, spiritual, and psychological improvements (Driver, Brown, & Peterson, 1991; Ulrich et al., 1991). Many management tools focus on the tangible benefits of outdoor recreation (e.g., ROS and REP). Subsequently, benefits like physical fitness and children interacting with nature are the focus of research that suggests the importance of outdoor recreation in the lives of adults and youth alike (Centers for Disease Control and Preventions, 2011; Godbey & Mowen, 2011; Louv, 2008; Stodolska, et al., 2010). Likewise, similar lines of research emphasize the negative impact of not engaging in outdoor recreation, such as decreased mental and physical health and low test scores in children (Louv, 2008; Walker & Virden, 2005). While these tangible benefits are often visible and the topic of research, there remains a need to examine the intangible benefits and how activities affect visitors' experiences and associated perceived benefits.

While the concepts of recreation preferences, motivations, and perceived benefits are often viewed in the same realm, they are not equal because receiving benefits directly depends upon the quality of experience relative to the participants' expectations (Arlinghaus, 2006; Manning, 1999). Therefore, perceived benefits are the end result and desired outcome of recreation manager planning.

Subsequently, understanding the perceived benefits of outdoor recreation participation is a necessary part of forming critical decisions related to park management. Given the changes in the composition of the U.S. population, research has asked the question, do individuals from different racial/ethnic groups seek different recreation opportunities and benefits (Kocis, 2007)? A paucity of research has examined this inquiry, particularly as it relates to outdoor recreation in state parks. Research suggests many racial/ethnic groups are unable to experience the benefits associated with outdoor recreation because they are often confronted with constraints that limit

or moderate their participation. For example, research suggests a lack of parks in the low-income neighborhoods prevents many racial/ethnic minorities from accessing the benefits associated with outdoor recreation participation (Sherer, 2005). Hence, the purpose of this study was to examine the participation preferences, motivations, and perceived benefits of diverse populations visiting state parks in Georgia.

Methods

Research Settings

In this study, research settings included on-site and off-site locations. The on-site portion of this study took place at three state parks in Northern Georgia (i.e., Fort Mountain, Fort Yargo, and Red Top Mountain). All three parks are located within 75 miles of metro Atlanta. These sites were chosen due to high annual visitation rates and elevated racial/ethnic diversity among park visitors (based on anecdotal reports from state park managers and administrative officials in the Georgia Department of Natural Resources' Parks, Recreation, and Historic Sites Division). These parks included similar facilities that offered an assortment of land and water-based recreation activities such as picnicking, swimming, camping, hiking, cycling, and boating (Table 4.1). Playgrounds and mini-golf courses were also available at each park. All three parks contained historic sites with associated heritage interpretation facilities.

Off-site locations included eight flea markets in communities surrounding the three focal parks (i.e., within a 30 mile radius) in northern Georgia. Markets were located in rural and urban areas and included indoor and outdoor malls. These sites were selected to obtain a racially/ethnically diverse sample of survey respondents who may or may not have been state park visitors.

Data Collection

Onsite self-administered intercept surveys asked respondents about their state park recreation preferences, motivations to visit state parks, and perceived benefits from state park visitation. Visitors' recreation preferences were assessed using 17 items that asked visitors to indicate all the activities they had participated in during their visit. State park recreation activities included natural, social, outdoor (e.g., land and water), and cultural based binary items (i.e., did or did not participate). Ten motivational items asked visitors how important different natural, social, and physical factors were in influencing their decision to participate in outdoor recreation in that particular state park (e.g., "How important are the following factors in your decision to participate in outdoor recreation at XXXX state park? Spending time with friends and family; meeting new people, Being physically active, etc.). Items were listed on a Likert scale from one to five. The survey instrument also included six statements asking about perceived beneficial outcomes occurring from their state park visit (e.g., "Visits to XXXX State Park help me to: Develop positive views of nature; Build and strengthen my relationships with others; Improve my physical health; Increase my quality of life, etc.). Perceived benefit items were also listed on a one to five Likert scale. Additional demographic questions were included in the survey.

Exit surveys (n=1,113) were conducted at automotive exit points in each state park. Researchers stopped each car using a 15-30 second survey, asked drivers the length of their visit, the main activity during their visit, and recorded the number of children and adults. During this interview, researchers also documented the race of exiting visitors.

A pilot study was conducted on-site at each of the three state parks between Memorial Day and Labor Day in 2009. The purpose of the pilot study was to evaluate the data collection procedures, survey instruments, interrelationships among questions, and efficacy of coding

schemes (Dillman, Smyth, & Christian, 2009). The pilot study data led to several revisions of survey structure. For example, new items addressing site-specific recreation were added. Other questions were adjusted to avoid potential bias answers. Other questions asking visitors to rate their use frequency of various park facilities were removed, as resources between parks differed. Additional items were added to account for facilities common in each of the three parks. Following the pilot study, additional items were also added to the survey including open questions to allow for a wider range of state park preferences that were not confined by scaled survey questions. The pilot study resulted in 840 completed surveys.

In the summer of 2010, more comprehensive on-site data were collected (n=1019) using a sampling calendar to obtain a stratified random sample of park visitors. The calendar considered all available days and hours during the data collection from May to September (e.g., weekdays, weekends, holidays, mornings, afternoons, evenings, high vs. low use times, and special park event days) across different visitor use areas in all focal parks. The self-administered intercept surveys were distributed in beach, picnic, and campground areas with a 91.49% response rate. In these areas, researchers approached every third park visitor age 18 or older and inquired if they would be willing to complete a brief, five-minute survey about state park use. Surveys were distributed in both English and Spanish languages by bilingual researchers. Following the distribution of surveys, researchers remained in the area responding to questions as necessary, allowing ample time (approximately 20 minutes) for survey completion.

Off-site data (n=214) were collected between March and July of 2011. Surveys were administered to vendors and customers at eight different flea markets within a 75-mile radius of the three focal state parks. In addition to individuals speaking English, any Spanish-speaking vendors or customers were approached by Spanish-proficient researchers and asked to participate

in a survey about outdoor recreation in Georgia. Following the distribution of surveys, researchers remained in the area to respond to questions as needed. Customers were also surveyed using an incentive-based approach. Researchers would ask every third adult flea market visitor if they would complete a survey in exchange for a candy bar. An overall response rate from vendors and customers in the eight flea markets was 73.71%.

Results

Outdoor Recreation Participation Preferences

Onsite intercept survey data showed that the majority of visitors across the three focal parks participated in picnicking/cookouts (68.5%) and swimming (61.3%) during their visit. A comparison of demographic variables showed differences in participation rates by activity (Table 4.2). Younger residents (18-30) and racial minorities participated more in beach activities. Team sports were popular among younger males and Hispanic/Latino and African Americans. Older White males (60+), however, preferred nature-based activities such as camping, hiking/walking, and wildlife photography. Offsite survey data suggested the most preferred recreation activities were relaxing (reported by 67.4% of participants), picnic/cookout (60.3%), and hiking/walking (50.2%). Significant differences in activity participation were observed among demographic groups, especially by race/ethnicity (Table 4.3).

Exit surveys showed that 64.8% of vehicles surveyed (n = 1113) had visited recreation hotspots during their visits to state parks. Of the exiting vehicles surveyed, park employees were not counted. The percentage of vehicles visiting hotspots increased to 70.7% (n = 1020). The percentage of vehicles visiting hotspots varied among the three parks, $\chi^2(2,1020) = 21.4$, $p < 0.001$, Cramer's V = 0.15: Fort Mountain (61.5%), Fort Yargo (69.2%), Red Top Mountain (79.2%). When weighted by the total number of people in each car, exit surveys showed that

75.5% of total people in the parks visited recreation hotspots (n = 3341). Exit surveys also provided more specific information about visitor activities within state parks (Table 4.4). Swimming and beach activities were the most popular at all parks, followed by picnics and cookouts. Overnight stays and hikers accounted for a larger portion of all visitors at Fort Mountain than at either of the other parks.

Comparisons of onsite and offsite outdoor recreation preferences across demographic groups (race/ethnicity, gender, age, and income) were conducted using ANOVA (Table 4.4). Visitors and non-visitors preferred maintained outdoor areas (landscaped parks, picnic areas, beaches, etc.) over developed outdoor areas and facilities (sport fields/courts, restrooms, visitor centers, etc.) and natural areas (forests, hiking trails, etc.). Natural areas were more strongly preferred by Hispanic/Latino and White park visitors than African Americans and Asians (Figure 4.1), especially African Americans in the 18-30 year-old age group. Offsite data suggested similar patterns for non-visitors. For example, African Americans viewed natural areas as significantly less important than maintained and developed outdoor areas. For other racial/ethnic groups, the importance of each type of site was comparable (Figure 4.2). Aggregated onsite and offsite data showed that males ($M = 4.03 \pm 0.07$) preferred natural areas more than females ($M = 3.88 \pm 0.09$). Females preferred maintained ($M = 4.39 \pm 0.06$) and developed ($M = 4.30 \pm 0.06$) outdoor areas more than males ($M = 4.28 \pm 0.08$ and $M = 4.14 \pm 0.08$, respectively) (Table 4.5).

Offsite survey respondents were presented with an open-ended question asking, “What could park managers do to encourage you to visit Georgia State Parks more often?” The main response from adults (n=314) across all racial/ethnic groups was to improve the general cleanliness of the park (23.5%). Maintenance and overall cleanliness was noted as a concern in day use areas with picnic tables and grills (12.4%) and bathroom/shower areas (10.2%). Of all

the groups, Hispanic/Latinos (26%) and Whites (25.6%) placed the most emphasis on cleanliness. Non-visitors also noted other preferences for important park features that would encourage their visitation. Access to aquatic features such as lakes (11.1%) and swimming areas (4.7%) as well as playgrounds (8.2%) and campgrounds (7.9%) were important. Hiking trails (10.2%) and the proximity of the park to visitors' homes (7.0%) were noted by respondents as being important features influencing park visitation. While these park features were important to all respondents, Latinos expressed the need for more inclusion and accessibility of parks for racial/ethnic minorities. One Latino respondent suggested, "The parks are very important for ALL humanity." Another Latino elaborated by stating: "I have a lot of experience in parks, but I believe there should be more advertising for the parks using media with pamphlets sent to Latinos residences."

Motivations to Recreate and Visit State Parks

Onsite intercept survey data showed that, across all parks and demographic groups, the most important motivations for visiting state parks were social reasons (e.g., spending time with friends and family, $M = 4.42 \pm 0.05$). Lower ranking motivations included resting and relaxation ($M = 4.21 \pm 0.05$), nature exploration (e.g., discovering and learning about nature, spending time in nature, $M = 3.94 \pm 0.06$), and physical activity (e.g., exercise, $M = 3.47 \pm 0.07$).

Several ANOVA's were used to examine the influence of demographic variables (race/ethnicity, gender, age, income) and their interactions on state park visitation motivations (Tables 4.6, 4.7, Figure 4.3). For social motivations, income level was the only significant predictor. Lower income individuals tended to report higher scores on the social motivations scale. Hispanic/Latinos and African Americans displayed higher scores on social motivation items than Whites, but these differences were not statistically significant. Motivations to rest and

relax were similar across all demographic groups. Nature exploration motivations were more popular among Hispanic/Latinos ($M = 4.12 \pm 0.12$) and Whites ($M = 3.90 \pm 0.07$) than African Americans ($M = 3.74 \pm 0.24$). Mean scores on the nature exploration motivation items also decreased as income levels increased. Physical activity motivations in state parks varied by income level, with lower income individuals placing greater importance on exercising and being physically fit.

Offsite intercept survey data showed approximately equal ratings for each of the recreation motivation categories. Social reasons were still the most important ($M = 4.15 \pm 0.07$), followed by resting and relaxation ($M = 4.09 \pm 0.08$). Physical activity ($M = 4.07 \pm 0.42$) and nature exploration ($M = 3.98 \pm 0.22$) were generally more important than they were for state park visitors, but these ratings were more variable.

Several ANOVA's were used to examine the influence of demographic variables (race/ethnicity, gender, age, income) and their interactions on general outdoor recreation motivations of offsite survey participants (n = 455). For social motivations, age, $F(2,415) = 5.9$, $p = 0.003$, $\eta^2 = 0.02$, race, $F(4,415) = 3.9$, $p = 0.004$, $\eta^2 = 0.03$, and age*race, $F(7,415) = 3.0$, $p = 0.004$, $\eta^2 = 0.04$, were the only statistically significant predictors. Older individuals (age 60+) and Asians rated social motivations lower than the other groups. Whites, Latinos and African American ratings for social items were similar. Although significant differences in motivations were not observed among demographic groups for any of the other motivation categories, some observational trends were evident. Latinos reported a mean physical activity motivation score ($M = 4.73 \pm 1.31$) that was nearly a point higher than any other groups, but the variability of the ratings was substantial. Latinos also reported a mean score that was higher but more variable than the other racial/ethnic groups for the nature exploration items ($M = 4.43 \pm 0.66$). African

Americans ($M = 3.69 \pm 0.20$) and Asians ($M = 3.34 \pm 0.26$) reported the lowest scores in the nature exploration motivation category.

Outdoor Recreation Benefits

When visitors were asked what perceived benefits they received from state park visits, the highest rated items across all groups of participants were increasing quality of life and developing positive views of nature. Improving mental health and building or strengthening relationships with others were the next most important benefits. Perceived benefits of park visits did not differ by park (Table 4.8).

Several ANOVA's were used to examine the influence of demographic variables (race/ethnicity, gender, and age) on perceived state park recreation benefits after controlling for park location and the interactions between park location and demographic variables. Significant differences in the "quality of life" benefit ratings were present among age, $F(2,867) = 5.9$, $p = 0.003$, $\eta^2 = 0.01$, and income groups, $F(5,867) = 2.9$, $p = 0.012$, $\eta^2 = 0.02$. Similarly, significant differences in the "mental health" benefit ratings were also evident among age, $F(2,862) = 6.5$, $p = 0.002$, $\eta^2 = 0.01$, and income groups, $F(5,862) = 2.3$, $p = 0.041$, $\eta^2 = 0.01$. In both cases, the strongest benefits were observed for lower-income individuals and respondents in the 31-59 year-old category. Lower income groups were also more likely to agree that state parks helped them to "interact with diverse people," $F(5,944) = 8.2$, $p = 0.001$, $\eta^2 = 0.04$ than other income groups. Post-hoc comparisons using the Tukey HSD test indicated that the mean score of lower the lowest income group ($M = 3.83$, $SD = 0.98$) was significantly different from other higher income groups ($M = 3.39$, $SD = 1.03$). The item "develop positive views of nature" varied by income level, $F(5,865) = 2.3$, $p = 0.045$, $\eta^2 = 0.01$, with respondents in the middle income categories ($25,000 - $75,000) scoring higher than other income groups on the benefit scale.

Significant differences in perceived benefits among racial/ethnic groups were only observed for "improving physical health" $F(4,861) = 2.6$, $p = 0.036$, $\eta^2 = 0.01$, and "interacting with diverse people, $F(4,855) = 6.8$, $p < 0.001$, $\eta^2 = 0.03$. Latinos scored higher than other racial/ethnic groups on both the physical health ($M = 4.21 \pm 0.13$) and diverse visitor interaction scales ($M = 3.95 \pm 0.13$). Significant statistical differences did not exist among demographic groups for scores on the item "building/strengthening relationships with others."

Discussion/ Conclusion

The increasing and continued diversification of the U.S. population will directly affect the demand for outdoor recreation venues, such as state parks, resulting in a greater need for managers to understand visitor preferences, motivations, and perceived benefits from participating in park-based recreation activities. This understanding is especially urgent for racial/ethnic minority groups who are rapidly growing and have the potential to serve as stewards of parks and protected areas in the near future. Despite this need for state park based research, limited studies have investigated the recreation preferences, motivations, and perceived benefits of visitors to state parks, particularly those found in the southeast supporting rapidly diversifying populations. Furthermore, this study was the first to examine participation factors related to non-visitors, in flea markets, surrounding local state parks.

Outdoor Recreation Participation Preferences

Intercept survey data suggested the main activities of state park visitors were swimming/beach visitation (61.3%) and picnic/cookouts (68.5%). Preferences for these activities were particularly high for racial/ethnic minorities who participated more than other groups. These findings are congruent with recent national outdoor recreation trends suggesting increased preferences for water-based activities (Cordell, et al., 2004, 2011). These highly preferred

activities take place in day use areas within state parks. Cordell et al. (2008) referred to natural day use areas that support large numbers of visitors engaging in outdoor recreation as *recreation hotspots*. The recreation hotspots in Georgia state parks are visited by the majority of groups entering the parks (75.5%). One explanation for this concentrated visitation is that park resources and facilities are often focused in these recreation hotspots. However, condensed visitation in these areas often results in crowding, which has been shown to have negative impact on visitor's experiences (Manning & Valliere, 2001).

Georgia state park managers are often challenged to provide quality outdoor recreation opportunities to park visitors that may be stressed or otherwise deterred by the volume of individuals preferring recreation hotspots. Part of this challenge is that many parks are older, built in the 1930's and not suited for large numbers of people. Consequently, issues of inadequate parking, limited facilities, and excessive waste trouble managers seeking to provide optimal beneficial outcomes for all visitors. Examining the recreation preferences of visitors may pose a solution for targeted management initiatives aimed at reducing these challenges.

For example, African American respondents preferred developed areas and facilities that are well lit compared to natural areas and Hispanics/Latinos prefer outdoor recreation activities that are socially based and generally visit in larger groups with more children. Efforts to encourage more minority park use could capitalize on these preferences by advertising the structured, developed areas in parks as sites that encourage social interaction in the outdoors. Likewise, new development could consider opening new swimming/beach areas in parks and adding more tables and grills per site to accommodate visitor site and activity preferences in recreation hotspots. These types of initiatives may limit crowding and attract more diverse park

visitors by encouraging visitor disbursement and offering sites preferred by certain racial/ethnic groups.

Intercept survey respondents from all racial/ethnic groups also strongly preferred general park cleanliness (23.5%) for encouraging their visitation to state parks. Respondents made several suggestions for improved and maintained bathroom and shower facilities. These suggestions were prominent from Hispanics/Latinos visitors. This finding may be explained by research suggesting that many in the Hispanic/Latino community equate natural settings with agricultural labor instead of leisure, thereby desiring clean natural settings (Juniu, 2000; Stodolska & Yi-Kook, 2005). This is not to say Latino/Hispanic respondents disliked nature; despite their desire to have clean park settings, Hispanics/Latinos were among the top group to prefer natural settings. Overall, outdoor recreation preferences varied by the race/ethnicity of survey respondents.

Motivations to Recreate and Visit State Parks

Results indicated that across all state park visitors and demographic groups the most important motivations for visiting state parks were social factors. Spending time with friends and family was a significant motivation confirmed by survey data and multiple anecdotal visitor accounts of multi-generational, family based traditional activities enjoyed at state parks. Unlike other natural areas that encourage and support motivations of challenge and conquest (e.g,, Wilderness), many state parks are uniquely situated near urban centers and subsequently provide frequent opportunities for families to recreate together thereby supporting social motivations for participation (Cordell, et al., 2011; Hendee & Dawson, 2002).

Similar to family-based motivations, other individuals were motivated to visit state parks in order to socialize with other groups. Previous research suggests natural areas are highly

supportive of social interactions within particular interest groups (Whiting, Pawelko, Green, & Larson, 2011). This finding was evident in this study as different social groups found state park appropriate venues for supporting their social interests. These groups included: church, youth, hiking, homeschooling groups, and sports teams. These groups may have been motivated to visits state parks because they provide open public venues with supporting facilities that encourage social bonding.

Also noted in this study were the impacts of demographic variables and their affects on social motivations to visit state parks. Visitors with lower income reported higher social motivations scores than other visitors. Likewise, Hispanic/Latino and African American visitors reporter higher social motivation scores than Whites. These findings confirm previous research by Abercrombie et al, (2008) showing what an integral role parks play in the lives of many low income racial minority groups that may not have other opportunities for socially based outdoor recreation opportunities.

Results comparing onsite and offsite motivations for state park visitation and general outdoor recreation participation found similar motivations for both groups. Age and race proved to be the most significant predictors of social motivations for general outdoor recreation. The findings that older individuals (age 60+) and Asians were less likely to rank social motivations as factors influencing their outdoor recreation participation suggests these groups recreate for different reasons. This finding challenges previous research emphasizing the role of recreation "in building social networks and support systems which are especially important for many elderly people" (Driver, 2008 p. 12). Researchers expected social motivations to be high for older individuals, as most were observed engaging in outdoor recreation with groups of people and were rarely alone.

Previous research suggests many groups are motivated by park-based physical activity (Cohen et al., 2007). Other findings concluded Hispanic/Latino groups were motivated by physical activity and nature exploration. Results connecting this group with motivations for physical activity is inconsistent with those of Burk, et al. (2011) who found leisure time physical activity participation and associated motivations to be low among Hispanic/Latino groups in parks. One explanation for this difference may be the difference between state and local parks. The parks in the study of Burk, et al. (2011) were local municipal parks that did not require entrance fees like state parks. Perhaps paying an entrance fee provided Hispanic/Latino visitors with more motivation to participate in physical activities in parks than other groups. This possibility may also compliment the finding that lower income groups were highly motivated by social motivations in that these groups attempted to make the most of their opportunity.

Outdoor Recreation Benefits

State parks played an important role in the lives' of visitors, as increasing quality of life and developing positive views of nature were the highest rated benefits for state park visitation across all groups. The finding that state park visitation results in benefits relating to quality of life is concurrent with Moore and Driver (2005) who described the ability of recreation to impact all aspects of an individual's life:

> …benefits [of recreation] pervade all aspects of human behavior and performance including mental and physical health; family and community relations; self-concepts; personal value clarification; perceived personal freedom; sense of fitting in; understanding local, community and national historical events and cultural characteristics; pride in one's community and nation; learning of many types; performance in school and at work; sharing; ethnic identity; identities formed with sports

> and sports teams; formation of close friendships and systems of social support; spiritual definition, renewal, and facilitation; involvement in community affairs; local community cohesion and stability; environmental understanding and stewardship; and economic development, growth, and stability (p. 28)

State park visitation also resulted in the perceived benefits of improved mental health and building/strengthening relationships with others. These perceived benefits suggest the need for state parks and may be used by management to securing funding by educating legislators in an era of decreasing budgets and financial uncertainty (Dolesh, 2008).

The ability of state parks to provide benefits affecting the quality of life was especially true for middle-aged (31-59 years old), lower-income respondents. One explanation for this finding is middle-aged respondents may have had less discretionary income than other groups. Higher income groups may have additional choices of venues providing outdoor recreation opportunities beyond state parks. Whereas, lower-income groups may be limited to state parks for the types of amenities they desire. The importance of parks in providing the benefits associated with outdoor recreation to low-income groups have been described in other research. For example, Huhtala and Pouta (2008) found that lower-income groups benefit more from the public provision of recreation services (e.g., state parks) than higher-income groups.

Other disparities between types of perceived benefits and demographic groups were seen in the category of improving physical health where Hispanics/Latinos reported higher scores than other groups. Similar to benefits of improved quality of life being ranked highest among lower-income respondents, Hispanics/Latinos may have relied more heavily on state parks as venues for physical activity. This inference would confirm previous studies suggesting Hispanic/Latino

groups benefit from physical activity in parks (Crespo, Smit, Andersen, Carter-Pokras, & Ainsworth, 2000; Stodolska, et al., 2010).

Limitations

Although this study provides state park managers with information regarding outdoor recreation preferences, motivation, and perceived benefits of visitors, the study had certain limitations. Three state parks and eight flea markets in northern Georgia were selected as onsite and offsite sampling locations. Sampling strategies were limited by financial and time constraints and did not represent a random sample of Georgia residents. Hence, while the results of this study reflect recreation patterns at these sites and the surrounding region, the application of these findings may be limited solely to these areas. Furthermore, inferences into outdoor recreation behavior at other sites should be undertaken with caution. Future studies could examine larger regions to compare these findings.

Flea markets were selected as open, public venues where demographically diverse Georgians (i.e., varying racial/ethnic and income groups) (Table 4.9) were readily accessible. Offsite responses from this sample may not be representative of non-visitors in Georgia. Furthermore, customer respondents completing surveys for the motivational candy bar may have been biased. Flea markets were selected in communities surrounding focal parks with the goal of gathering feedback from non-visitors residing close to parks, however, offsite respondents may not represent individuals residing close to parks.

Onsite data were also collected during peak visitation summer months (Memorial Day-Labor Day) in order to capture the largest number of respondents. Data were not gathered during the offseason and may be different from recreation patterns of visitors during the peak season. Inferences into visitation should consider the sample calendar used in this study.

Two White, bilingual males collected the majority of data used in this study. Survey responses may have been affected by the race or gender of researchers. For example, racial/ethnic minorities may have viewed researchers has authoritative figures and formed responses to surveys based upon what they thought would please researchers. Likewise, park behavior of certain groups (i.e., Hispanic/Latinos, women) may have been impacted from fear or intimidation from viewing researchers carrying paperwork and clipboards during data collection. Also, researchers have innate biases that despite striving for objectivity may affect their paradigms and interpretation of recreation patterns. Although surveys were available in English and Spanish, some respondents were illiterate.

Sampling methods used in this study had some limitations. While over 80% of visitors frequented recreation hotspots (i.e., areas where surveys were administered; beaches, picnic areas, and campgrounds) during their visit, there was an additional 20% that did not. The outdoor recreation behaviors of this group may have deviated from the majority of park visitors who completed surveys in recreation hotspot areas.

Management Implications

This study offers implications for state park managers seeking to promote visitation among a diversifying population. For instance, findings indicated respondents preferred outdoor recreation activities centered in day use areas (e.g., swimming/beach and picnic/cookouts). Respondents also indicated improving the facilities and cleanliness of parks would encourage them to visit more often. State parks managers experiencing significant budget constraints resulting in the loss of staff, often find it difficult to maintain general cleanliness and facilities they manage (Dolesh, 2008; National Conference of State Legislatures, 2010). This study, however, provides evidence of how critical general maintenance is for groups preferring to visit

clean, developed, natural areas. By reallocating limited resources, managers can ensure visitors' expectations are met. Accomplishing this may be as simple as adding more trash or recycling receptacles in day use areas, or placing signs asking for visitor compliance in reducing litter. These types of initiatives would require limited resources and have the potential for increased visitor benefits.

Another programming initiative may focus on the social elements of outdoor recreation participation as they were among the most prominent in this study. Management actions creating more opportunities for low-income individuals and racial/ethnic minorities to be socially engaged would be productive as these groups highly ranked socially motivations and benefits. Managers seeking to act on their constituents' preferences by offering these types of initiatives could help to create greater benefits for all state park visitors. In this capacity, park managers may have the ability to affect the quality of life for their constituents.

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Table 4.1.

Description of Georgia State Parks Sampled During Summer 2010

State Park	Location	2010 Park Visitation (Jan.-Dec.)	Facilities
Fort Mountain	Chatsworth, GA Murray County	129,719	3,712 acres 17-acre lake Swimming beach 41 miles of hiking/biking trails 47 campsites 7 picnic shelters
Fort Yargo	Winder, GA Barrow County	382,061	1,815 acres 260-acre lake Swimming beach 15 miles of hiking/biking trails 74 campsites 5 picnic shelters
Red Top Mountain	Cartersville, GA Bartow County	721,956	1,776 acres 12,010-acre lake (Allatoona) Swimming beach 17 miles of hiking/biking trails 92 campsites 7 picnic shelters

Table 4.2

Most Common Adult Outdoor Recreation Activities at State Parks (with Demographic Differences), Summer 2010 (n = 1021)

Outdoor Activity	Total Adults Participating (%)	Gender Diff[a]	Age Diff[b]	Ethnic Diff[c]
Picnic/cookout	68.5		^ 31-59 **	
Swimming	61.3	^ F **	^ 18-30, 31-59 ***	^ B
Beach activities	55.1	^ F	^ 31-59, 18-30 ***	^ B, H*
Relaxing/no main activity	47.6		^ 60+	^ W, A, B***
Hiking/walking	40.8	^ M **	^ 60+, 31-59 ***	^ W, A **
Camping	30.0	^ M	^ 60+ ***	^ W ***
Playground	29.1	^ F	^ 31-59, 18-30 ***	^ A, B
Fishing	19.4	^ M	^ 31-59 *	^ B, W **
Wildlife viewing/photography	18.7	^ M *	^ 60+ ***	
Canoeing/kayaking	13.9		^ 31-59 **	
Visiting historic site	13.1	^ M ***	^ 60+, 31-59 ***	^ W ***
Motor boating	9.1			^ B, W *
Biking	8.9	^ M **	^ 31-59, 60+ **	^ W *
Visitor center/exhibit	7.0		^ 60+ **	^ W *
Team sports	5.0	^ M *		^ H, B *
Jogging/running	5.0		^ 18-30	^ H *
Mini-golf	4.6		^ 18-30	
Horseback riding	2.9			
Other activities	5.3		^ 60+ **	

*, **, *** denotes significance of chi-square test at $\alpha = 0.05$, 0.01, and 0.001 respectively

[a] Significant differences between genders reported. (^ = more, F = females, M = males)

[b] Significant differences between age groups reported. (^ = more, age groups = 18-30, 31-59, 60+ year olds)

[c] Significant differences between racial/ethnic groups reported. (^ = more, A = Asian, B = black, H = Hispanic, W = White

Table 4.3

Most Common General Adult Outdoor Recreation Activities Reported by Offsite Survey Participants (with Demographic Differences), Summer 2010 (n = 524)

Outdoor Activity	Total Adults Participating (%)	Gender Diff[a]	Age Diff[b]	Ethnic Diff[c]
Relaxing/no main activity	67.4			^ W, B ***
Picnic/cookout	60.3	^ F		^ W, B ***
Hiking/walking	50.2	^ F *		^ W
Swimming	46.4		^ 18-30, 31-59 ***	^ W **
Beach activities	41.4	^ F **	^ 18-30, 31-59 **	^ W **
Fishing	37.4	^ M **		^ W, A ***
Jogging/running	31.7		^ 18-30 **	^ H, W **
Team sports	31.1	^ M	^ 18-30 ***	^ H, B ***
Visiting historic site	30.7			^ W *
Wildlife viewing/photography	23.5		^ 60+	^ W, A **
Camping	22.7			^ W ***
Biking	22.5			^ H, W
Driving off-road vehicles	15.1			^ W, H *
Motor boating	12.4			^ W, A ***
Hunting	9.9	^ M **		^ W ***
Canoeing/kayaking	7.6		^ 18-30 *	^ W ***
Other activities (work, shopping, etc.)	7.2			^ A *

*, **, *** denotes significance of chi-square test at α = 0.05, 0.01, and 0.001 respectively

[a] Significant differences between genders reported. (^ = more, F = females, M = males)

[b] Significant differences between age groups reported. (^ = more, age groups = 18-30, 31-59, 60+ year olds)

[c] Significant differences between racial/ethnic groups reported. (^ = more, A = Asian, B = black, H = Hispanic, W = White)

Table 4.4

Visitors[a] *(% of Total) Engaged in Various State Park Activities (Exit Survey Data), Summer 2010*

Activity	State Park			ALL PARKS (n=3195)
	FM (n=754)	FY (n=1475)	RTM (n=1105)	
Swimming/beach	39.0	47.3	58.4	49.1
Picnic/cookout/BBQ	20.6	23.6	33.3	26.1
Camp/cabin/cottage	19.0	7.2	1.9	8.1
Fish or boat on lake	0.8	5.8	3.1	3.7
Bike	3.8	2.6	0.1	2.1
Walk/hike/run trails	12.2	2.3	1.5	4.3
Team sports	0.0	1.9	0.8	1.1
Playground	0.7	1.4	0.6	1.0
Visit visitor center	2.1	1.8	0.0	1.3
Drive through or pickup/dropoff	9.9	7.8	13.3	10.1
Special events	3.4	0.0	0.5	0.9
Volunteer/community service	0.0	1.2	0.0	0.5
Employee/host/worker	2.5	6.0	1.4	3.7

[a] Numbers based on vehicle reports weighted by total people per vehicle

Table 4.5

Factors Influencing Outdoor Recreation Preferences (with Demographic Differences), Summer 2010 (n = 1150)

Motivation Category	Mean Score[a] (Onsite)	Mean Score[a] (Offsite)	Significant Demographic Differences
Natural areas	3.95 ± 0.07	3.87 ± 0.14	Race: $F(4,1115) = 2.8$, $p = 0.026$, $\eta^2 = 0.01$
Maintained outdoor areas	4.38 ± 0.06	4.19 ± 0.12	Location: $F(1,1114) = 8.5$, $p = 0.004$, $\eta^2 = 0.01$ Race: $F(4,1114) = 2.6$, $p = 0.037$, $\eta^2 = 0.01$
Developed outdoor areas & facilities	4.27 ± 0.06	4.06 ± 0.13	Location: $F(1,1106) = 7.2$, $p = 0.007$, $\eta^2 = 0.01$ Gender: $F(1,1106) = 6.5$, $p = 0.011$, $\eta^2 = 0.01$ Race: $F(4,1106) = 2.6$, $p = 0.036$, $\eta^2 = 0.01$ Race*Age: $F(8,1106) = 2.1$, $p = 0.037$, $\eta^2 = 0.01$

[a] Preferences were measured on a scale from 1 = not important to 5 = extremely important

Table 4.6

Example Factorial ANOVA Examining Influence of Demographic Variables on the Importance of Social Motivations to Recreate for State Park Visitors, Summer 2010

Source	*df*	Type III SS	*F*	*p*	η^2
Intercept	1	1563.53	2884.0	0.000	
Race/Ethnicity	4	3.13	1.4	0.217	
Gender	1	0.03	0.1	0.804	
Age	2	1.00	0.9	0.397	
Income	5	9.64	3.6	0.003	0.02
Gender*Race	4	2.88	1.3	0.258	
Gender*Age	2	0.49	0.5	0.637	
Race*Age	8	3.14	0.7	0.671	
Gender*Race*Age	6	1.02	0.3	0.930	
Error	910	493.35			

Table 4.7

Motivations to Visit Focal State Parks (with Demographic Differences), Summer 2010 (n = 943)

Motivation Category	Mean Score	Significant Demographic Differences
Social activities	4.41 ± 0.05	Income: $F(5,910) = 3.6$, $p = 0.003$, $\eta^2 = 0.02$
Rest & relaxation	4.21 ± 0.06	
Nature exploration	3.94 ± 0.06	Race: $F(4,885) = 3.4$, $p = 0.009$, $\eta^2 = 0.01$ Income: $F(5,885) = 3.0$, $p = 0.012$, $\eta^2 = 0.02$
Physical activity	3.48 ± 0.07	Income: $F(5,901) = 3.0$, $p = 0.010$, $\eta^2 = 0.02$

Table 4.8

Perceived Benefits of State Park Visits (by Park), Summer 2010

Benefit	State Park			TOTAL (n = 1019)
	FM (n = 301)	FY (n = 342)	RTM (n = 378)	
Increase quality of life	4.26 ± 0.09	4.28 ± 0.09	4.26 ± 0.08	4.27 ± 0.05
Develop positive views of nature	4.21 ± 0.09	4.10 ± 0.09	4.19 ± 0.08	4.17 ± 0.05
Improve mental health	4.14 ± 0.10	4.16 ± 0.09	4.14 ± 0.09	4.15 ± 0.05
Build/strengthen relationships with others	4.08 ± 0.09	4.00 ± 0.09	3.96 ± 0.09	4.01 ± 0.05
Improve physical health	4.00 ± 0.09	3.96 ± 0.10	3.97 ± 0.09	3.98 ± 0.06
Interact with diverse people	3.46 ± 0.11	3.61 ± 0.12	3.54 ± 0.11	3.54 ± 0.06

Note: Benefits were rated on a scale from 1 = "strongly disagree" to 5 = "strongly agree"

Table 4.9

Intercept Survey Respondents (% of total) in Onsite Georgia State Park and Offsite Flea Market Sample (by Survey Location and Demographic Group)

Variable	On-site: Campgrounds (n=1136)	On-site: Day Use Areas (n=4056)	Off-site (n=1315)
Gender			
Female	50.3	58.6	51.3
Male	49.7	41.4	48.7
Age			
Under 18 years old	19.2	22.7	24.7
18-30 years old	14.8	25.1	27.8
31-50 years old	39.7	41.2	31.6
Over 50 years old	26.3	11.0	15.9
Race/Ethnicity			
White or White	90.0	51.7	39.1
Hispanic/Latino	3.8	30.9	36.9
Black or African American	2.1	8.2	14.1
Asian	1.4	3.9	6.3
American Indian	0.2	0.6	0.6
Other	0.7	1.1	0.9
Multiracial	2.0	3.7	2.0
Language Preference			
English	93.7	63.4	58.9
English & Spanish	3.9	21.0	22.0
Spanish	1.0	11.1	12.9
Other	1.4	4.5	6.2
Education			
Some high school	5.2	13.8	18.2
High school or GED	26.0	38.8	43.7
College or advanced degree	68.7	47.4	38.1
Income			
$25,000 or less	6.5	21.9	34.1
$25,001 to $50,000	19.7	24.7	26.5
$50,001 to $100,000	33.2	23.2	14.9
$100,001 or more	21.0	9.4	2.9
Refuse to answer	19.6	20.8	21.6

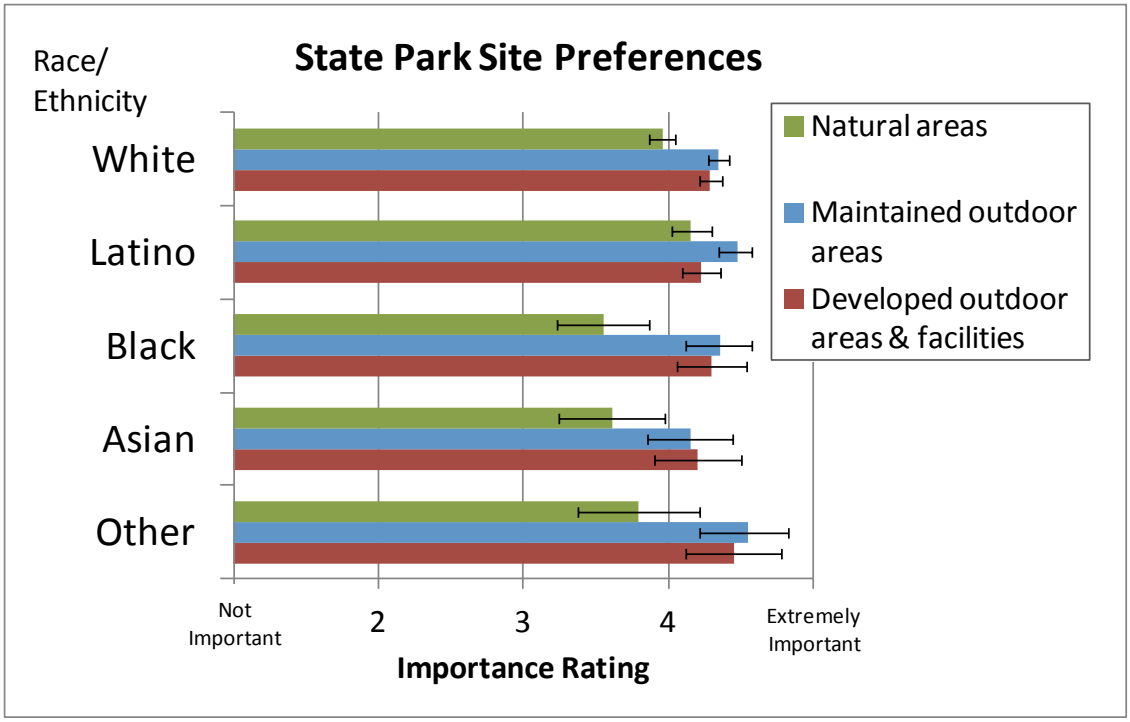

Figure 4.1. State park recreation site preferences (by race/ethnicity), summer 2010 (n = 971)

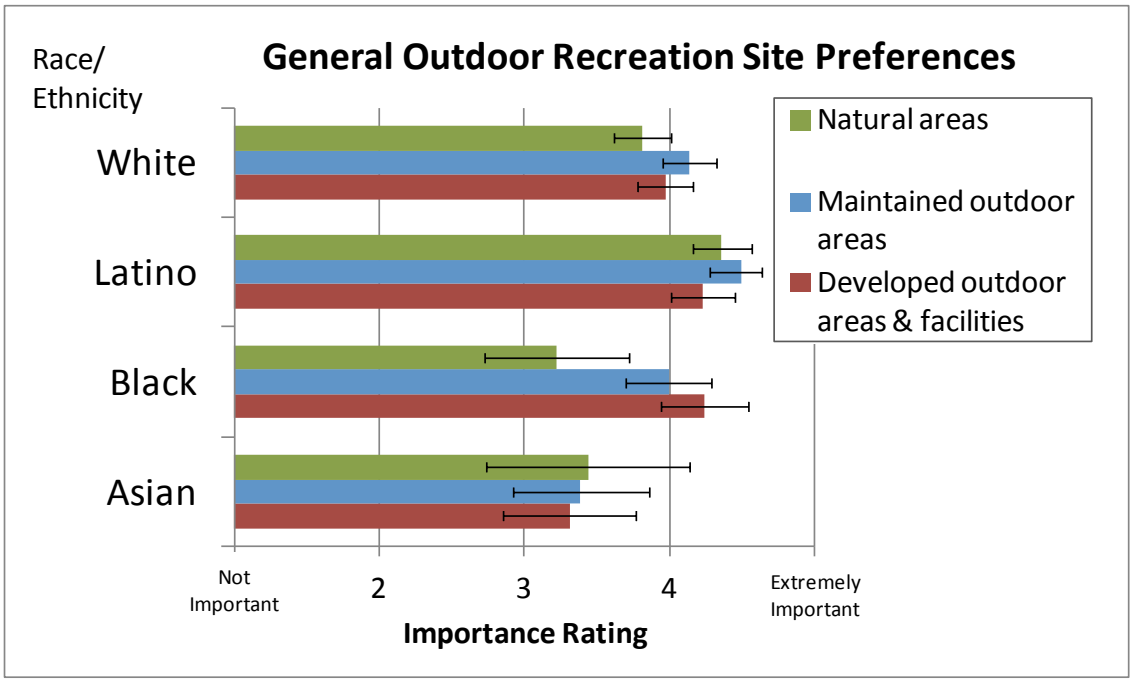

Figure 4.2. General offsite outdoor recreation site preferences (by race/ethnicity), summer 2011 (n = 235)

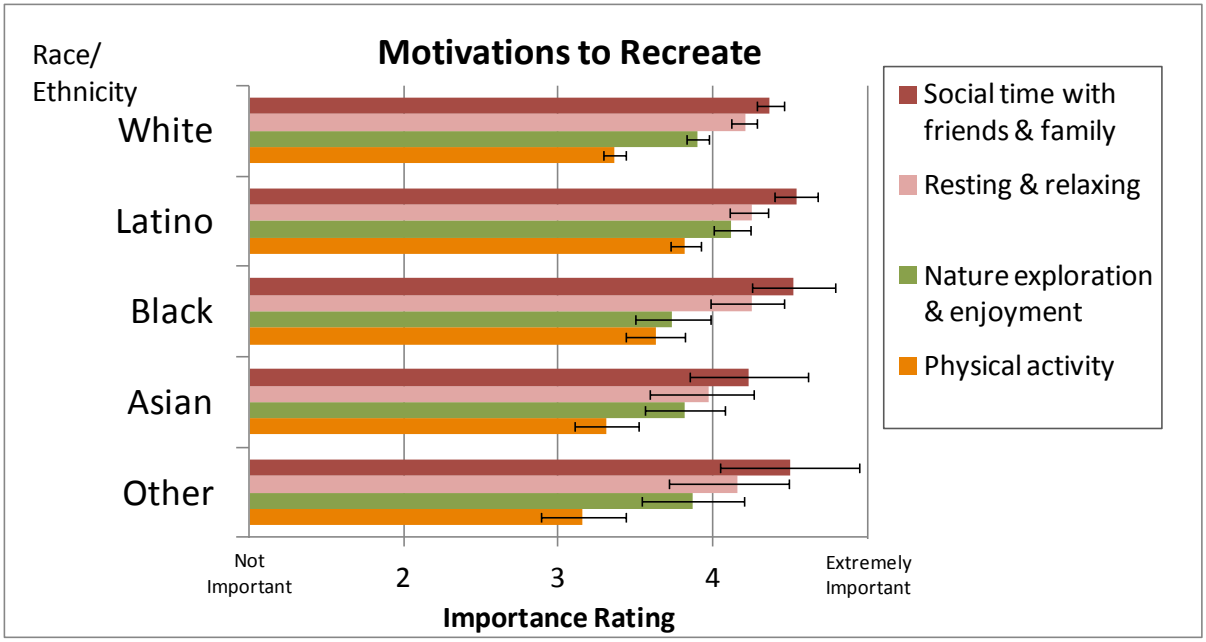

Figure 4.3. Motivations to recreate at state parks (by race/ethnicity), summer 2010 (n = 943)

CHAPTER 5

STATE PARK VISITATION AND OUTDOOR RECREATION CONSTRAINTS AMONG ETHNICALLY DIVERSE POPULATIONS IN GEORGIA[4]

[4] Whiting, J. W., Larson, L. R., & Green, G. T. To be submitted to *Leisure Sciences.*

Abstract

State park use patterns are changing as the population of racial/ethnic minorities in the United States continues to rise. Managers are concerned that many potential state park constituents, particularly members of racial/ethnic minority groups, encounter barriers that limit their visitation. By identifying these constraints, managers may be able to adapt services, facilities, and programs to attract visitors who may otherwise be constrained. To address these management issues, this study examined recreation constraints and state park visitation patterns across diverse populations in Georgia.

Onsite data were collected during the summer of 2010 using intercept surveys in three state parks in northern Georgia. Data collection was conducted in recreation hotspots or areas of high demand (i.e., picnic areas, swimming beaches, and campgrounds) within each park. Brief (five minute) self-administered intercept surveys of visitors (N=1338) were conducted according to a randomized sampling schedule at each park. Surveys were available in Spanish and English. The survey instrument included 21 items that accounted for intrapersonal, interpersonal, structural, and cultural constraints. Visitors were also asked open-ended questions about what state park managers could do to get more people to visit state parks. An overall response rate of 91.5% was obtained for onsite surveys. Following the onsite data collection, data were collected offsite at eight flea markets located within 30 miles the three focal parks (N=258). Customers and vendors were asked to complete self-administered intercept surveys (similar to the onsite version) in an attempt to identify the recreational constraints of Georgia residents who may or may not visit state parks. An overall response rate of 73.7% was obtained for offsite surveys.

Data from onsite intercept surveys suggested that overall park visitation was not substantially constrained by any factor (mean ratings $\leq$ 2.84, where 1 = not a constraint, 3 =

minor constraint, and 5 = major constraint). The most significant constraints reported by visitors were lack of time, distance traveled to parks, and lack of money. Mean constraint ratings among visitors differed by race/ethnicity, especially for Latinos who reported being more constrained by lack of money and distance/transportation issues than other groups [$F(4,953) = 9.7$, $p < 0.001$, $\eta^2 = 0.04$]. Many visitors suggested that park managers could increase visitation by updating facilities and improving the overall cleanliness of the state parks and decrease park fees. Offsite survey participants reported being slightly more constrained than onsite visitors (mean ratings $\leq$ 3.12). Racial/ethnic minorities were more constrained than White participants in the areas of lack of information, distance/transportation issues, and lack of money [$F(2,209) = 4.7$, $p = 0.001$, $\eta^2 = 0.08$].

These findings may be useful to Georgia state park managers who strive to encourage visitation and inclusion for all Georgia constituents from all backgrounds. While managers cannot control many constraints, they can account for items like lack of information availability, conditions of park facilities, and quality of services offered. Hence, these results may provide managers with a better understanding of how to increase park visitation among diverse Georgia residents who encounter outdoor recreation constraints.

Introduction

The population of the United States is changing rapidly. Estimates suggest recent exponential growth will continue to increase into mid-century as the socio-demographic composition of the population continues to shift with racial/ethnic minorities comprising larger percentages of the population over the next several decades (United States Census Buearu, 2008; Kochhar, Suro, & Tafoya, 2005). An implication of these changes is that patterns of state park use are changing. Historically, many state parks were constructed and managed for White

visitors as they comprised the majority of the population (Washburn, 1978). Park use patterns, however, are changing and park management models that were historically sufficient for one racial/ethnic group are now dated and insufficient to meet the needs of an ever-increasing culturally diverse population. Hence, as a result of these changes, state park managers are seeking to gain a stronger understanding of the barriers or constraints that many of their constituents encounter while attempting to visit state parks and participate in outdoor recreation. Hence, the purpose of this study was to examine constraints to state park visitation and participation in outdoor recreation among ethnically diverse populations in Georgia.

Review of Literature

Early research in constraints was driven by leisure providers and practitioners that were "expected to remove barriers to leisure participation and facilitate the obtaining of satisfactory leisure experiences" (Iso-Ahola & Mannell, 1985 p. 111). Therefore, early research in this area was management-based and descriptive in nature rather than explanatory, which resulted in many ridged assumptions that have evolved during the last thirty years (Walker & Virden, 2005). For example, early research commonly referred to the term "barriers," however, it was suggested that the word failed to capture the entire range of reasons for behaviors such as leisure nonparticipation and ceasing participation (Jackson, 1988). For this reason, the term "constraint" was subsequently used in an effort to broaden the focus of constraints research.

As the volume of different constraint items studied grew it became difficult for researchers to arrive at a general consensus in regards to the conceptual distinction of constraint types. While many studies suggested a dichotomous relationship existed between the types of items encountered, there was a dilemma in attempts made to collectively classify constraints in a unified consensus. For example, Francken and Raaij (1981) suggested that concepts could be

classified into two categories of internal or external constraints. These authors suggested that internal constraints could be viewed as individual attributes such as abilities, interests, knowledge, and personal capacities; whereas, external constraints were viewed primarily as characteristics of the environment, such as circumstances, lack of facilities, geographical distance, and lack of money and time. Other authors, however, suggested that, while they supported the internal/external constraint dichotomy, or other similar constraint relationships, they categorized items differently (Boothby, 1981; Searle & Jackson, 1985). This early lack of uniformity and the difficulty of classification was described by Jackson (1988) as being "both troublesome and arbitrary" (p. 204).

In 1987 Crawford and Godbey suggested it was useful to think of constraints fitting into three categories of intrapersonal, interpersonal, and structural constraints (Crawford & Godbey, 1987). The following is a brief description of these constraint categories.

Structural Constraints

Structural constraints are factors that are seen to come between leisure preferences and actual participation. Examples include family life-cycle stage, lack of family financial resources, season, climate, the scheduling of work time, availability of opportunity, and reference group attitudes concerning the appropriateness of participating in the leisure activity in question (Crawford & Godbey, 1987).

Intrapersonal Constraints

Intrapersonal constraints are described as occurring before leisure preferences are formed. These constraints deal with individual psychological states that focus more on the affect on leisure preferences than actual participation. Examples of intrapersonal barriers include stress, depression, anxiety, religiosity, kin and non-kin reference group attitudes, prior socialization into

specific leisure activities, perceived self-skill, and subjective evaluations of the appropriateness and availability of the leisure activities in question.

Interpersonal Constraints

Interpersonal constraints are socially based. These factors relate to the relationship between individuals' characteristics and "may interact with both preference for, and subsequent participation in, companionate leisure activities" (Crawford & Godbey, 1987 p. 123). Crawford and Godbey (1987) suggest that these social factors are relevant when an individual is unable to locate a suitable partner who desires to participate in the leisure activity. Therefore, the lack of friends and/or family who prefer similar leisure activities can be seen as interpersonal constraints.

Crawford and Godbey's (1987) model of conceptualizing constraints was widely accepted, however, the items in the model (i.e., structural, intrapersonal, and interpersonal constraints) were said to be static and not process oriented and were therefore theoretically disconnected. In light of this, Crawford, Jackson, and Godbey, (1991) produced a hierarchal model from the original factors in an effort to further theorize constraint research. In their model, the authors argued that the original constraints to participation were overcome sequentially and not in a static fashion as previously thought. They suggested that intrapersonal and interpersonal constraints typically occurred before structural constraints and were therefore, more prominent and important in their revised model (Crawford, Jackson, & Godbey, 1991).

From the hierarchal model the evolution of constraints literature continued as Jackson, Crawford, and Godbey (1993) attempted to integrate and further conceptualize the updated hierarchal model. These authors proposed several statements that explained how the constraints model functions (Jackson, et al., 1993). The main concept in their research was to bring to light

that most of the past constraints research had suggested that constraints consisted of insurmountable obstacles to leisure participation. Jackson, Crawford, and Godbey, (1993) rejected the previous assumption that when individuals are confronted with a constraint the outcome will be nonparticipation. Instead, they posed an alternative view in which individuals are able to negotiate or modify their participation instead of completely foregoing participation. Their study accomplished this by showing research that suggested the different strategies used by individuals who encounter constraints and are able to overcome them by modifying or adapting their plans in a way that enhances participation (Jackson, 1991; Jackson, Crawford, & Godbey, 1993; Jackson & Dunn, 1991; Jackson & Rucks, 1993; Kay & Jackson, 1991). Examples of negotiations implemented by individuals include "rearranging schedules, spending priorities, and other aspects of their lives to accomplish their leisure-related goals" (Jackson et al., 1993 p. 133).

Race/ethnicity are other significant factors affecting an individual's outdoor recreation participation. The disparities and racial inequalities between the predominately White population and racial/ethnic minorities are evident in income, educational attainment, labor force participation, residential segregation, and interracial integration. Shinew and Floyd (2005) suggest these factors can "shape the context for how (racial/ethnic minorities) experience and negotiate constraints to leisure" (p. 39). For example, national and historical trends in these areas show that when compared to Whites, African Americans have not experienced the same opportunities in education and employment, which result in lower income levels for African American families. In this example, these inequitable opportunities are manifested in leisure constraints for African Americans, as they are unable to participate in leisure activities due to the lack of resources, which enable other, more affluent, privileged groups the ability to experience leisure and negotiate constraints as they arise. Therefore, by understanding issues of racial

inequality, leisure researchers may gain valuable insight into leisure constraints encountered specifically by African Americans.

In addition to race/ethnicity, social influences, such as culture, have also been shown to affect outdoor recreation participation and constraints. In their study of constraints in a cross-cultural context, Dong and Chick (2005) examined participation and nonparticipation among Japanese and Chinese couples and found evidence that supports culturally prescriptive and proscriptive behaviors. Participants in their study discussed participation in condoned recreation activities. Examples of prescriptive recreation activities included playing with firecrackers and gambling as activities that are approved by the Chinese culture and reinforced through tradition. While many participants felt these activities were dangerous and unproductive, the association that these activities held on cultural levels distinguished their importance in society, and therefore, made it difficult to not participate in these prescriptive activities.

Chick and Dong (2005) provided other examples of cultural reinforced proscriptive recreational activities that resulted in nonparticipation. These activities included descriptions of cultural mores involving females and older generations that were constrained in their free time because of Chinese and Japanese traditions involving childcare and family obligations. These traditions acted as constraints that kept participants from engaging in desired recreation activities, as they felt obligated to comply with the cultural and societal norms.

As a result of their findings, Chick and Dong (2005) suggest that culture can be applied to constraints research. They further suggested that the traditional hierarchal model of constraints developed by Crawford, et al. (1991) cannot support culturally-based constraints. Chick and Dong (2005) reasoned that individuals must attend to a sequential ordering of constraints wherein the sequence of constraints reflects the importance of encountered limitations. The

authors argued that culture is present in all three levels of the constraint model (intrapersonal, interpersonal, and structural) and, as a result, suggested that culture should be superimposed upon the traditional model (Figure 1.2).

As a result, Chick and Dong (2005) advocated "a new line of research wherein culture is used as an independent variable in both intracultural and cross-cultural comparative studies of constraints" (p. 180). These authors further asserted that new understanding and insights into constraints may occur as a result of studying culture as it relates to constraints research. Other authors refuted this suggestion and argued that Chick and Dong's forth type of constraint (culture) can "just as easily be interpreted as a preciously overlooked, culturally influenced, component of *interpersonal* constraints" (Walker, Jackson, & Dieng, 2007 p. 574). Despite the critique against culture being included as an independent variable within the constraints model, there may be value in further examining and conceptualizing the idea of culture and as it relates to constraints affecting racial/ethnic minority groups.

Outdoor Recreational Constraints

Similar to research on general recreation and leisure constraints, outdoor recreation constraints research has primarily focused on structural constraints (Walker & Virden, 2005). For example, out of four studies examining outdoor recreation constraints on statewide levels in different states, the top rated constraints were structural in nature: lack of time, too busy with other activities, lack of information about parks or outdoor recreation areas, and parks and outdoor recreation areas are too far away (Alberta Community Development, 2000; Holland, Pennington-Gary & Thapa, 2001; Scott & Kim, 1998; Virden & Yoshioka, 1992). These studies may suggest "outdoor recreation may be more influenced by time availability, trip costs, and geographic accessibility than other types of non-outdoor recreation activities (Walker & Virden,

2005 p. 210). Walker and Virden (2005) also suggest there is a limited amount of research on outdoor recreation constraints and there is a subsequent need for further investigations in this area.

Methods

Research Settings

In this study, research settings included on-site and off-site locations. The on-site portion of this study took place at three state parks in Northern Georgia (i.e., Fort Mountain, Fort Yargo and Red Top Mountain). All three parks are located within 75 miles of metro Atlanta. These sites were chosen due to high annual visitation rates and elevated racial/ethnic diversity among park visitors (based on anecdotal reports from state park managers and administrative officials in the Georgia Department of Natural Resources' Parks, Recreation, and Historic Sites Division). These parks included similar facilities that offered an assortment of land and water-based recreation activities such as picnicking, swimming, camping, hiking, cycling, and boating (Table 5.1). Playgrounds and mini-golf courses were also available at each park. All three parks contained historic sites with associated heritage interpretation facilities.

Off-site locations included eight flea markets in communities surrounding the three focal parks (i.e., within a 30 mile radius) in northern Georgia. Markets were located in rural and urban areas and included indoor and outdoor malls. These sites were selected to obtain data from a racially/ethnic diverse sample of survey respondents who may or may not have been state park visitors. Acquiring the opinions of respondents outside the parks was important to identify those individuals who may have been highly constrained and unable to visit parks and participate in outdoor recreation.

Data Collection

Self-administered intercept surveys asked respondents about possible recreation constraints by using 17 items that accounted for intrapersonal, interpersonal, and structural constraints. These items were selected from scales used in previous constraints-based studies (Crawford, et al., 1991). Four additional items were created to measure cultural constraints making a total of 21 items for the constraints scale. Additional demographic questions were included in the survey.

A pilot study (n=480) was conducted on-site at each of the three state parks between Memorial Day and Labor Day in 2009. The purpose of the pilot study was to evaluate the data collection procedures, survey instruments, interrelationships among questions, and efficacy of coding schemes (Dillman, Smyth, & Christian, 2009). The pilot study data led to several revisions of survey structure. For example, during the pilot study, on-site feedback led to the rewording of several constraint questions and addition of an open-ended response item that allowed respondents to identify other constraints that were not included in the survey.

In the summer of 2010, comprehensive on-site data were collected (n=964) using a sampling calendar to obtain a stratified random sample of park visitors. The calendar considered all available days and hours during the data collection from May to September (e.g., weekdays, weekends, holidays, mornings, afternoons, evenings, high vs. low use times, and special park event days) across different geographic areas in all focal parks. The self-administered intercept surveys were distributed in beach, picnic, and campground areas with a 91.49% response rate. In these areas, researchers approached every third park visitor age 18 or older and inquired if they would be willing to complete a brief, five-minute survey about state park use. Surveys were distributed in both English and Spanish languages by bilingual researchers. Following the

distribution of surveys, researchers remained in the area responding to questions as necessary, allowing ample time (approximately 20 minutes) for survey completion.

Off-site data (n=214) were collected between March and July of 2011. Surveys were administered to vendors and customers at eight different flea markets within a 75-mile radius of the three focal state parks. In addition to individuals speaking English, any Spanish-speaking vendors or customers were approached by Spanish-proficient researchers and asked to participate in a survey about outdoor recreation in Georgia. Following the distribution of surveys, researchers remained in the area to respond to questions as needed. Customers were also surveyed using an incentive-based approach. Researchers would ask every third adult flea market visitor if they would complete a survey in exchange for a candy bar. An overall response rate from vendors and customers in the eight flea markets was 73.71%.

Results

Constraints to State Park Visitation – Onsite

An examination of the 21 onsite constraint items averaged overall the three parks revealed dichotomous mean ratings for all items (mean ratings ≤ 2.84, where 1 = not a constraint, 3 = minor constraint, and 5 = major constraint), Further examination of constraint items by individual park resulted in similar dichotomous results, suggesting onsite data were non-suitable for performing a principal axis factor analysis (PFA). Instead, constraint items were organized into intrapersonal, interpersonal, and structural constraints groupings as suggested by previous studies (Crawford, et al., 1991; Arnold & Shinew, 1998). Data suggested park visitation was not substantially constrained. Mean ratings of intrapersonal, interpersonal, and structural constraints differed by race/ethnicity, annual income, level of education, and gender (Table 5.2). Generally, racial/ethnic minorities were more constrained than White visitors. The differences between

White and minority visitors were evident in intrapersonal and structural constraints suggesting factors relating to race and park management issues influence their visitation. Visitor's annual household income also affected reported constraint levels. Visitors with annual household incomes less than $25,000 reported higher constraint levels than other visitors across all three categories while those claiming between $26,000-$50,000 were the least constrained of all income groups. Visitors with the least amount of formal education reported lower constraints than those with more education. No significant differences were found regarding constraint levels and gender of visitors.

An examination of individual onsite constraints revealed three structural items to be the highest rated. These items were distance traveled to parks, facilities in poor condition, and lack of information about recreation opportunities (Table 5.3). The condition of park facilities and overall lack of information about recreation opportunities were the next highest rated constraints. Mean constraint ratings on multiple items differed by race/ethnicity (Figure 5.3). A lack of interest in outdoor recreation was a significant constraint for racial/ethnic minorities, but not White visitors, $F(4,941) = 16.0$, $p < 0.001$, $\eta^2 = 0.06$. Distance and transportation issues were more of a concern for Latinos than other groups, $F(4,953) = 9.7$, $p < 0.001$, $\eta^2 = 0.04$, and a lack of money appeared to be more of a constraint for Latinos and Asian than the other racial/ethnic groups, $F(4,945) = 2.5$, $p = 0.040$, $\eta^2 = 0.01$. Although cultural constraints were minimal, they were more frequently reported by racial/ethnic minorities than Whites, $F(4,946) = 9.2$, $p < 0.001$, $\eta^2 = 0.04$. Racial/ethnic minorities also tended to rate park-related issues such as lack of information, $F(4,939) = 13.1$, $p < 0.001$, $\eta^2 = 0.05$, perceived crime, $F(4,931) = 5.7$, $p < 0.001$, $\eta^2 = 0.02$, unfriendly employees, $F(4,926) = 5.6$, $p < 0.001$, $\eta^2 = 0.02$, and poor condition of facilities, $F(4,930) = 4.0$, $p < 0.001$, $\eta^2 = 0.02$, as more of a constraint than White visitors.

In addition to the 21-item constraint scale, visitors across all parks (n=533) were asked an open ended question regarding what park managers could do to encourage them to camp and/or use park trails more often. Many visitors suggested certain park facilities limited their desire and/or ability to participate. For example, visitors referenced bathrooms facilities that were in poor condition as items that negatively impacted their experience or didn't allow them to participate. Others suggested non-tangible items such as the reservation system, the fee structure, or park rules and regulations deterred them from visiting and participating. In general, most suggestions referenced specific, management-based improvements that could mitigate visitor constraints.

Constraints to State Park Visitation - Off-site

In an attempt to validate onsite research findings, offsite data were subjected to a PFA. Similar to onsite data, results showed evidence of three categorical constraint items. Prior to performing the PFA, the suitability of data was assessed. Descriptive statistics showed increased variability over the dichotomous results from onsite data. Inspection of the correlation matrix revealed the presence of many coefficients of 0.4 and above. The Kaiser-Mayer-Oklin value was 0.832, exceeding the recommended value of 0.6 (Kaiser, 1970, 1974) and Bartlett's Test of Sphericity (Bartlett, 1954) reached statistical significance, supporting the factorability of the correlation matrix. The PFA revealed the presence of three components with eigenvalues exceeding 1, explaining 34.4%, 13.1%, and 7.5% of the variance respectively. From these results three components were retained for further investigation.

The three-component solution explained a total of 54.9% of the variance. To aid in the interpretation of the three components, a varimax rotation was performed. The rotated solution revealed a number of strong loadings on all three components (Table 5.5). The interpretation of

the three components was consistent with previous research on the recreation constraints scale, with interpersonal and cultural constraint items loading strongly on Component 1, intrapersonal constraint items loading strongly on Component 2, and structural constraint items loading on Component 3. Similar to the PFA for onsite constraints, the cultural constraint items loaded strongly with the intrapersonal items. The three categories supported the PFA conducted for onsite data and suggested respondents offsite experience the same types of constraints as those visiting parks.

Although off-site survey participants reported higher scores on constraint items than onsite participants, mean ratings suggested that state park visitation was not substantially constrained by any factor (mean ratings ≤ 3.12, where 1 = not a constraint, 3 = minor constraint, and 5 = major constraint). Similar to onsite participants, customers surveyed at flea markets reported lack of time, distance traveled to parks, and lack of money as significant constraints to visitation (Table 5.4). An overall lack of information about recreation opportunities was also rated among the more significant constraints. Although interpersonal conflicts and cultural differences were slightly higher rated in the off-site sample, they did not appear to be a major factor influencing participants' decision to visit parks.

Mean constraint ratings on multiple items differed by race/ethnicity (Figure 5.4). A lack of interest in outdoor recreation was more of a constraint for racial/ethnic minorities than White visitors, $F(4,204) = 2.4$, $p = 0.021$, $\eta^2 = 0.05$. Distance and transportation issues were a concern for racial/ethnic minorities, but not Whites, $F(2,209) = 4.7$, $p = 0.001$, $\eta^2 = 0.08$, and a lack of money appeared to be an especially significant problem for Asians, $F(4,204) = 4.5$, $p = 0.002$, $\eta^2 = 0.08$. Although cultural constraints were minimal, they were more frequently reported by racial/ethnic minorities than White, $F(4,209) = 6.3$, $p < 0.001$, $\eta^2 = 0.11$. Racial/ethnic minorities

– particularly Latinos and Asians - also tended to rate park-related issues such lack of information, $F(4,207) = 8.2$, $p < 0.001$, $\eta^2 = 0.14$, perceived crime, $F(4,201) = 2.6$, $p = 0.039$, $\eta^2 = 0.05$, and unfriendly employees, $F(4,202) = 3.2$, $p = 0.015$, $\eta^2 = 0.02$, as more of a constraint than White visitors.

Similar to park visitors, off-site respondents were asked what park managers could do to encourage them and their children to be active in visiting Georgia state parks more often (n=1315). Responses to this question evoked constraint based suggestions similar to those of park visitors. Cleanliness of parks, distance from home, and available activities were among the top suggestions made by individuals. Respondents suggested that improving the condition of park facilities, trails, and day use areas would increase their visitation. The condition and maintenance of park facilities was often linked to individual levels of feeling secure when visiting parks. Similarly, the location of parks was a constraint for many individuals. One respondent suggested increasing the number of Georgia state parks in urban areas would greatly increase visitation among Georgia residents who were constrained by distance. One of the final items constraining respondents was their lack of knowledge of resources available in Georgia state parks. For example, several respondents suggested that having a variety of park resources available for activities like swimming, hiking, camping, and playing, which could accommodate both individuals and families, would draw them to visit Georgia state parks. Other visitors commented on the need for better advertising to inform residents what activities and resources are available in Georgia state parks. Overall, many suggestions regarding perceived recreation constraints were structural constraints that could be potentially addressed by park management.

Discussion

As the socio-demographic composition of the U.S. population continues to shift, state park visitation and outdoor recreation participation patterns are changing. State park managers are seeking new ways to gain a stronger understanding of the limitations that many of their constituents encounter while attempting to visit state parks and participate in outdoor recreation. In answer to this phenomenon, this study sought to enhance the general understanding of constraints on a state park level and provide substantive direction for agencies to address limiting factors in an effort to encourage park visitation and outdoor recreation participation. Results from this study were divided into data collected from park visitors to three parks in northern Georgia and data gathered from respondents in eight flea markets located in communities surrounding focal state parks.

Constraints to State Park Visitation – Onsite and Off-site

Consistent with previous research (Crawford & Godbey, 1987), results revealed three categories of constraints: intrapersonal, interpersonal, and structural. Crawford and Godbey (1991) suggested these three types of constraints to be hierarchal in nature with intrapersonal constraints being the most powerful and significant (p. 314). This study, however, found that structural constraints were among the most powerful and significant constraints affecting park visitation and outdoor recreation participation. This finding may be partially explained by the nature of individual respondents, who were in parks, participating in outdoor recreation while completing the survey. Structural constraints were of primary concern to park visitors who found these limitations more readily apparent than other types of constraints. Hence, an understanding of the structural constraints faced by visitors may hold a number of implications and opportunities for state park managers to encourage visitation. Many of the constraints reported

by park visitors were structural items. Agencies could potentially address the majority of these items by initiating programs to improve facilities, offer discounts and other financial incentives, providing more activities and information about park resources to visitors, and train staff and volunteers to have more positive interactions with visitors. Implementing these types of programs and initiatives could decrease the constraints encountered by individuals currently visiting parks and thereby increase visitation among the same constituency that value and visit parks.

In addition to the three main constraints categories, recommendations from Chick and Dong (2005) were followed as four items were developed for assessing cultural constraints on state park visitation. The failure of these items to load independently on the PFA may suggest culture is not as strong of a determining factor when considering state park participation in the United States. This may be particularly relevant considering most cultural constraint research has been conducted outside of North America in countries like China, Japan, and Taiwan where formal, traditional culture plays a larger role on societal mores. Hence, at present, constraint models excluding culture as an independent category may be more appropriate in state park settings in North America. This finding also supports Jackson's (2005) theory that culture can be viewed, and frequently coincides with, intrapersonal constraints. Other authors suggest constraint categories are not mutually exclusive and that considerable overlap exists in the meanings of the groupings (Shaw & Henderson, 2005). However, as the population of the U.S. continues to become increasingly more diversified the inclusion and examination of cultural constraints maybe become more important in the future.

The examination of the three constraints by race/ethnicity confirmed previous research suggesting that, on average, park visitors of diverse backgrounds were more constrained than

White visitors (Mowen, Payne, & Scott, 2005; Stanis, Schneider, Chavez, & Shinew, 2009). This disparity between racial/ethnic groups was particularly evident for Asians and Hispanic/Latinos who reported higher levels of structural constraints than other groups.

Similar to race/ethnicity, the amount of park visitors' annual income and education affected reported constraint levels. Visitors with higher education and more income were less constrained than those with less education and lower annual income. One explanation for the differences between demographic characteristics and levels of reported constraints could be that many minority groups face challenges that limit their education and income, and subsequently, their discretionary income and social mobility. Lower levels of education may also affect individual knowledge of resource availability. For example, a primary structural constraint for minorities of lower income and education levels was the lack of information about recreational opportunities. While more affluent, educated visitors seemed more informed about park resources and associated recreation opportunities; their counterparts did not, and as a result were more constrained.

Unlike previous research suggesting females face more constraints in their leisure than men (Jackson & Henderson, 1995), this study found gender did not seem to affect constraint levels associated with park visitation. This may be because parks are largely frequented by women caring for young children during morning and afternoon hours. This is especially true to in day-use areas where children participate in unstructured play in an open environment where gender does not seem to be an issue affecting participation. The large numbers of women accompanying young children in day-use areas may have also created a sense of community and acceptance where traditional, site-based, constraint items were not as prevalent in comparison to other locations.

Given that visitors from diverse backgrounds were not equally affected by constraints, individual constraint items also examined by socio-demographic characteristics. Consistent with previous research examining constraints in outdoor recreation (Stanis, et al., 2009), there were some constraint similarities for all groups: lack of free time, distance of parks from visitors' homes, cost, facilities in poor condition, and lack of information about recreational opportunities. While these were among the top rated constraints across all park visitors, they were generally highest among racial/ethnic minorities, specifically Hispanic/Latinos and Asians. Given the past and expected future growth of this segment of the population in the future, it is essential that their constraints to visitation be addressed. One strategy for increasing awareness of state parks among minorities would be to contact grass root, community groups or established and well-known stakeholders who represent or are situated in minority communities and have them serve as possible advocates for state parks or information sources.

Onsite visitors may have been able to negotiate their constraints to gain access to and participate in park activities. In an effort to obtain data from a racially/ethnic diverse sample of survey respondents who may have experienced more constraints than individuals sampled in the parks, off-site data were collected in flea markets surrounding parks. Off-site survey participants reported higher constraint levels than onsite visitors. While these participants were more constrained than individuals in parks, most survey respondents did not report major constraints to state park visitation based on the scale used in intercept surveys. Off-site results also revealed differences in the constraint levels by race/ethnicity with minority groups being more constrained than White respondents. Cultural conflicts, however, were not a major concern for any single racial/ethnic group of respondents. Unlike previous research identifying issues of crime, conflicts between racial groups, and threats of violence (Cutts, Darby, Boone, & Brewis, 2009; Gobster,

2002), respondents in this study did not report being constrained by these types of culturally based items. This may have been due to the presence of park rangers and law enforcement in and near the parks. While survey data reported the absence of these types of constraints, anecdotal accounts suggested evidence of racial tension expressed mainly by White visitors commenting on the increasing diversity among park visitors.

Time, distance to park, and cost were reported to be the biggest barriers for most respondents off-site. However, lack of information about recreation opportunities (both inside and outside of parks) was frequently listed as an issue for racial/ethnic minorities contacted in flea markets. Hispanic/Latino visitors frequently reported not knowing about opportunities to visit certain state parks and engage in the activities offered therein. This was often reflected as diverse groups listed municipal and community parks as recently visited state parks. Visitors' confusion over the difference in types of parks illustrated the need and opportunity for managers to increase awareness in diverse communities about the value in state parks in providing unique opportunities for outdoor recreation experiences. As managers reduce informational constraints greater numbers of state park constituents should benefit from regular park visitation.

Finally, the authors would be remiss without mentioning issues of inter-group conflict in the sampled parks. While mean visitor ratings were low for occurrences of conflicts between groups (as represented on constraint scale items on intercept surveys), researchers experienced several anecdotal accounts of underlying tensions between racial/ethnic groups. Most of these occurrences were manifested in comments made by white visitors to researchers about the disproval of the presence of racial/ethnic minorities in the state park. While not overt in nature, these comments illustrated the presence of intolerance and prejudice that may explain the minor geographical divisions between racial/ethnic groups recreating in the same areas within the state

parks sampled. For example, in the morning, when park visitors would arrive in day-use areas, two or three small groups of different racial/ethnic backgrounds would select portions of an area where they enjoyed relative privacy through a corridor of space surrounding the possessions they brought with them. As more visitors of arrived they would typically select areas that were closer to individuals of the same racial/ethnic group, resulting in group "clusters" within day-use areas. This observation was particularly evident for minority groups would tended to form more defined clusters based on larger group sizes.

Other similar expressions of intolerance and racism were made via open-ended items on intercept surveys. White visitors would comment, "get rid of the Latinos in the parks" or that "there are too many damn Mexicans in the park." Others suggest having "all American day in the park."

While these expressions were not made frequently, they did represent a portion of park visitors and may possibly account for the self-segregation of racial/ethnic groups in the parks. Previous research has suggested foundational explanations for issues of racism in outdoor settings, asserting conceptual understanding may be found in collective memory as passed from generation to generation (Johnson & Bowker, 2004). Whether this explains the phenomenon in Georgia state parks is debatable, however, it is an issue park managers should be aware of.

Management Implications

This study illustrated the need and opportunity for park managers to increase awareness within diverse communities about the value in state parks in providing unique opportunities for outdoor recreation experiences. While managers cannot control for many interpersonal and intrapersonal constraints that are psychological, personal, or social in nature they may be able to alleviate structural constraints, many of which are oriented around the environment they manage.

For example, structural constraints, such as lack of information on recreation opportunities or maintenance/condition of park facilities can be directly alleviated by management. Likewise, increasing the amount of signs, exhibits, and brochures, along with visible park staff may provide more information for visitors to learn about and participate in recreational activities. High traffic day use facilities near beach and picnic zones may be particularly useful in serving as central hubs for information distribution.

Many parks cite that visitors no longer visit their main visitor or information centers, hence state parks should consider having smaller information booths placed within recreational hotspots such as on beaches, near picnic areas, etc. Providing these types of information may also serve to educate visitors about fun, family oriented activities that they may not have been aware of. Likewise, knowing that one of the major constraints to visitation is the poor condition of facilities can provide managers with motivation to maintain facilities or reallocate funds in an effort to improve site development. Basic changes such as improving bathroom lighting, replacing missing door locks, and basic sanitation were often included in visitor suggestions. These renovations are necessary for visitors, especially many racial/ethnic minorities, who often do not feel safe and comfortable using many of the outdated facilities in state parks.

Gathering data at flea markets surrounding focal parks proved to be one effective strategy for obtained data from non-visitors, however future studies should also consider contacting local churches, mails, sporting arenas, etc as other potential data collection sites. These public spaces have high concentrations of racial/ethnic minority populations that are often more constrained than White groups in the parks. Future studies may use these areas to gather substantive feedback regarding constraints that limit their visitation to state parks and other natural spaces offering outdoor recreational opportunities. Feedback from diverse populations in these public areas can

serve to maximize park managers understanding of actions to be taken to remove and decrease the limitations diverse groups encounter while attempting to recreate.

Not included in this study were the anecdotal accounts provided to researchers by state park constituents both on and off-site. Many of these comments were valuable in providing insight into visitation behavior and associated constraints. While this study asked visitors to respond to an open-ended question asking what managers could do to increase their visitation, this study did not include structured interviews with park visitors and off-site respondents, however, valuable information regarding limitations to park visitation was gathered from informal conversations during the process of collecting data. Future studies may benefit from conducting focus groups and pursuing other qualitative methods involving constraints to state park visitation. These types of investigations may result in identifying constraints that are relevant to state parks that have not been realized by previous studies employing quantitative methods.

Future studies may also benefit from examining strategies park visitors use in negotiating constraints. Understanding how groups perceive constraints and negotiate them despite inherent difficulties may prove useful to managers in marketing programs that have the most appeal to their constituency. Managers comprehending the constraints negotiation process and the dynamic interactions between limitations and motivations should be better able to promote parks despite current management challenges.

Understanding and addressing constraints that affect state park visitation across diverse populations can improve agency's ability to be more relevant and empathetic to visitors. Furthermore, these insights can result in improved programs and changed policy that can increase park visitation and enhance visitors' experiences in parks resulting in a more equal

representation of constituents that will benefit from regular visitation as constraints are targeted and accounted for through specific programming measures.

Limitations

While this study provides state park managers with information regarding outdoor recreation constraints for diverse Georgia residents, it has several limitations. Three state parks and eight flea markets in northern Georgia were selected as onsite and offsite sampling locations. Sampling strategies were limited by financial and time constraints and did not represent a random sample of Georgia residents. Hence, while the results of this study reflect recreation patterns at these sites and the surrounding region, the application of these findings may be limited solely to these areas. Furthermore, inferences into constraints at other sites should be undertaken with caution. Future studies could examine larger regions to compare these findings.

Flea markets were selected as open, public venues where demographically diverse Georgians (i.e., varying racial/ethnic and income groups) were readily accessible. Offsite responses from this sample may not be representative of non-visitors in Georgia. Furthermore, customer respondents completing surveys for the motivational candy bar may have been biased. Flea markets were selected in communities surrounding focal parks with the goal of gathering feedback from non-visitors residing close to parks, however, offsite respondents may not represent individuals residing close to parks.

Onsite data were also collected during peak visitation summer months (Memorial Day-Labor Day) in order to capture the largest number of respondents. Data were not gathered during the offseason and may be different from constraints of visitors during the peak season.

Two White, bilingual males collected the majority of data used in this study. Survey responses may have been affected by the race or gender of researchers. For example,

racial/ethnic minorities may have viewed researchers has authoritative figures and formed responses to surveys based upon what they thought would please researchers. Likewise, reported constraints of certain groups (i.e., Hispanic/Latinos, women) may have been impacted from fear or intimidation from viewing researchers carrying paperwork and clipboards during data collection. Also, researchers have innate biases that despite striving for objectivity may affect their paradigms and interpretation of open-ended constraint items. Although surveys were available in English and Spanish, some respondents were illiterate.

Sampling methods used in this study had some limitations. While over 80% of visitors frequented recreation hotspots (i.e., areas where surveys were administered; beaches, picnic areas, and campgrounds) during their visit, there was an additional 20% that did not. The outdoor recreation behaviors of this group may have deviated from the majority of park visitors who completed surveys in recreation hotspot areas.

Finally, open-ended questions were used on the survey to illicit constraint items not identified in the provided scale. While respondents often commented they may have been constrained in their ability to write or to full express the constraints they encounter.

Conclusion

This study found constraints to state park visitation and outdoor recreation participation to be categorical in nature. Three types of constraints were identified: intrapersonal, interpersonal, and structural. Structural constraints were distinguished as being the strongest and most reported constraints for state park visitors. Cultural constraint related items did not stand out as a unique category, rather loaded with intrapersonal constraints. Onsite and off-site data suggested constraint items and levels differed by race/ethnicity, with minority populations

reporting higher constraint levels than White groups. The top rated constraints were related to lack of time, distance, information, cost, and condition of park facilities.

Based on the constraints identified in this study, several opportunities are available for state park managers to provide equitable opportunities to underserved populations that may be challenged to visit parks and participate in outdoor recreation. First, managers can understand the constraints that their constituents face when attempting to visit parks. Second, managers can prioritize available resources, programming initiatives, and facilities, to meet the needs and preferences of their constituents, while accounting for identified constraints. Third, managers can find success in implementing regular assessments of their visitors and the programs and services they offer in an effort to remain relevant in a rapidly changing environment. As managers continue to investigate and account for visitor constraints, they can effectively serve their constituency by ensuring all segments of the population have equal awareness of and access to areas they oversee.

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Table 5.1

Description of Georgia State Parks Sampled During Summer 2010

State Park	Location	2010 Park Visitation (Jan.-Dec.)	Facilities
Fort Mountain	Chatsworth, GA Murray County	129,719	3,712 acres 17-acre lake Swimming beach 41 miles of hiking/biking trails 47 campsites 7 picnic shelters
Fort Yargo	Winder, GA Barrow County	382,061	1,815 acres 260-acre lake Swimming beach 15 miles of hiking/biking trails 74 campsites 5 picnic shelters
Red Top Mountain	Cartersville, GA Bartow County	721,956	1,776 acres 12,010-acre lake (Allatoona) Swimming beach 17 miles of hiking/biking trails 92 campsites 7 picnic shelters

Table 5.2

Categorical Constraints by Demographic Variables For Onsite Visitors, Summer 2010

Race/Ethnicity									
	White (n=627)		**Hispanic/ Latino (n=228)**		**Black (n=84)**		**Asian (n=36)**		
Constraint Type	**M**	**SD**	**M**	**SD**	**M**	**SD**	**M**	**SD**	**Fvalue**
Interpersonal	1.11	0.30	1.29	0.64	1.17	0.43	1.29	0.69	[1]8.52
Intrapersonal	1.14	0.37	1.45	0.76	1.32	0.52	1.51	0.67	[1]18.8
Structural	1.38	0.63	1.69	0.91	1.49	0.77	1.90	0.80	[1]10.3
Average	1.21	0.43	1.47	0.77	1.32	0.57	1.56	0.72	
Annual Income									
	≤ $25K (n=261)		**$26-50K (n=255)**		**$51-75K (n=170)**		**≥ $76 (n=245)**		
Constraint Type	**M**	**SD**	**M**	**SD**	**M**	**SD**	**M**	**SD**	**Fvalue**
Interpersonal	1.24	0.58	1.12	0.33	1.14	0.36	1.11	0.44	[1]2.69
Intrapersonal	1.39	0.65	1.19	0.43	1.19	0.47	1.10	0.28	[1]8.47
Structural	1.61	0.90	1.46	0.68	1.46	0.65	1.37	0.74	[1]2.39
Average	1.41	0.71	1.25	0.48	1.26	0.49	1.19	0.48	
Level of Education									
	Some H.S. (n=156)		**H.S./G.E.D (n=423)**		**Advanced Degree (n=609)**				
Constraint Type	**M**	**SD**	**M**	**SD**	**M**	**SD**	**Fvalue**		
Interpersonal	1.24	0.60	1.17	0.50	1.14	0.35	[1]4.31		
Intrapersonal	1.49	0.78	1.24	0.55	1.19	0.42	[1]15.2		
Structural	1.58	0.85	1.47	0.75	1.44	0.68	1.68		
Average	1.43	0.74	1.29	0.60	1.25	0.48			
Gender									
	Female (n=730)		**Male (n=513)**						
Constraint Type	**M**	**SD**	**M**	**SD**	**Fvalue**				
Interpersonal	1.15	0.44	1.19	0.48	1.96				
Intrapersonal	1.26	0.57	1.22	0.49	1.65				
Structural	1.47	0.75	1.50	0.74	0.53				
Average	1.29	0.58	1.30	0.57					

[1]**Significant at α .05**

Table 5.3

Constraints to State Park Visitation Reported by Onsite Survey Participants, Summer 2010 (n = 964)

Constraint Category	Item	Mean	SD
Interpersonal	*I do not have enough free time.*	2.84	1.45
Structural	*Parks are too far from my home.*	2.15	1.41
Interpersonal	*The cost is too high.*	1.67	1.16
Structural	*Facilities are in poor condition.*	1.58	1.09
Structural	*Lack of information about rec opportunities.*	1.53	1.03
Structural	*Parks do not provide enough fun things for me or my family to do.*	1.49	0.99
Interpersonal	*I have no way to get to a state park.*	1.28	0.84
Structural	*Park employees are not friendly.*	1.26	0.71
Interpersonal	*I prefer to recreate elsewhere*	1.26	0.76
Interpersonal	*I do not approve of activities other visitors are doing.*	1.26	0.70
Intrapersonal	*I am not interested in outdoor recreation activities.*	1.25	0.76
Intrapersonal	*I have no friends or family to do activities with.*	1.25	0.77
Intrapersonal	*I am afraid of wild animals and outdoor pests.*	1.23	0.72
Intrapersonal	*I am afraid of crime in park.*	1.18	0.59
Intrapersonal	*I am uncomfortable around other racial groups.*	1.15	0.59
Intrapersonal	*I feel uncomfortable because of my race.*	1.14	0.57
Intrapersonal	*My racial group experiences conflicts with other visitors.*	1.12	0.51
Intrapersonal	*I don't feel welcome around other racial groups.*	1.12	0.51
Intrapersonal	*I am uncomfortable because of my gender.*	1.11	0.48
Structural	*Information not in my language.*	1.10	0.68

Note: Constraint items were rated on a scale from 1 = not a reason to 5 = major reason that keeps you from visiting parks as often you would like.

Table 5.4

Constraints to State Park Visitation Reported by Offsite Survey Participants, Summer 2011 (n = 214)

Constraint Category	Item	Mean	SD
Time	*I do not have enough free time.*	3.12	1.48
Distance	*Parks are too far from my home.*	2.67	1.48
Lack of information	*Lack of information about rec opportunities.*	2.10	1.37
Money	*The cost is too high.*	2.07	1.34
Personal preference	*Parks do not provide enough fun things for me or my family to do.*	1.68	1.12
Personal preference	*I have no friends or family to do activities with.*	1.68	1.20
Park issues	*Facilities are in poor condition.*	1.67	1.05
Park issues	*I am afraid of perceived crime in state parks.*	1.63	1.09
Other alternatives	*I prefer to recreate elsewhere*	1.62	1.28
No interest in activities	*I am not interested in outdoor recreation activities.*	1.61	1.12
Lack of transportation	*I have no way to get to a state park.*	1.61	1.14
Park issues	*Park employees are not friendly.*	1.54	0.96
Personal preference	*My family or I have health problems.*	1.50	1.04
Personal preference	*I am afraid of wild animals and outdoor pests.*	1.49	1.01
Park issues	*Information about parks is not in my language*	1.41	0.95

Note: Constraint items were rated on a scale from 1 = not a reason to 5 = major reason that keeps you from visiting parks as often you would like.

Table 5.5

Factor Loadings for Offsite Constraints items in Principal Component Factor Analysis, Spring and Summer 2011

(n = 214)

Constraint Item	Component		
	1	2	3
I am uncomfortable because of my gender	.851		
I am uncomfortable around people of other racial groups	.849		
I am uncomfortable because of my race	.814		
I do not feel welcome because of my race	.784		
My racial group experiences conflicts with other visitors	.766		
I prefer to recreate elsewhere	.717		
I do not approve of other visitors' activities	.655		
Information about parks is not in my language			
Facilities are in poor condition.		.787	
Park employees are not friendly.		.675	
I am afraid of perceived crime in state parks.		.655	
Parks do not provide enough fun things for me or my family to do.		.633	
My family or I have health problems.		.582	
I am not interested in outdoor recreation activities.		.530	
I am afraid of wild animals and outdoor pests		.522	
Parks are too far from my home.			
I do not have enough free time.			.786
I have no way to get to a state park.			.613
I have no friends or family to do activities with.			.530
The cost is too high.			

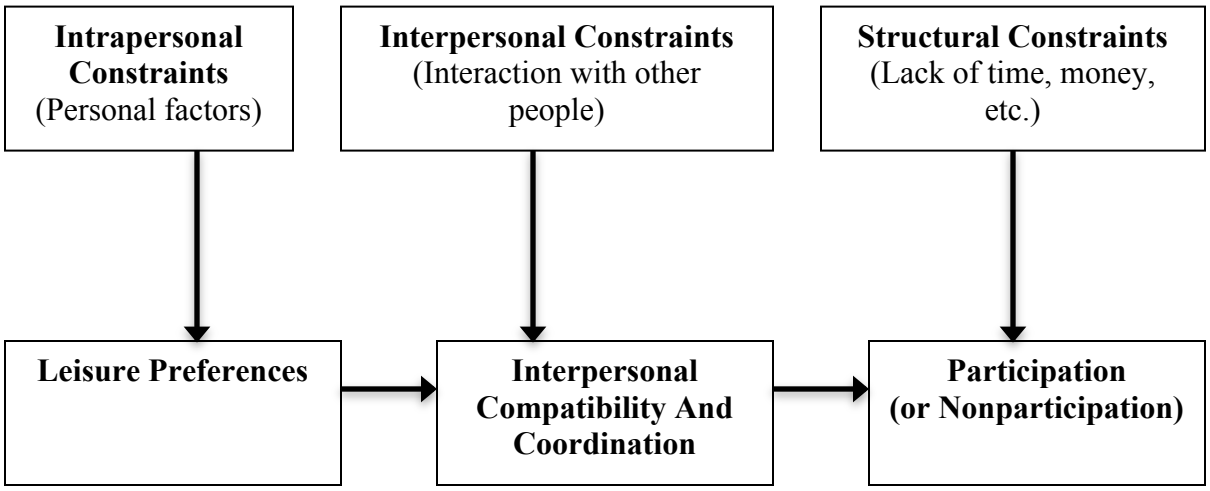

Figure 5.1. Hierarchical model of leisure constraints (adapted from Crawford, Jackson, and Godbey, 1991)

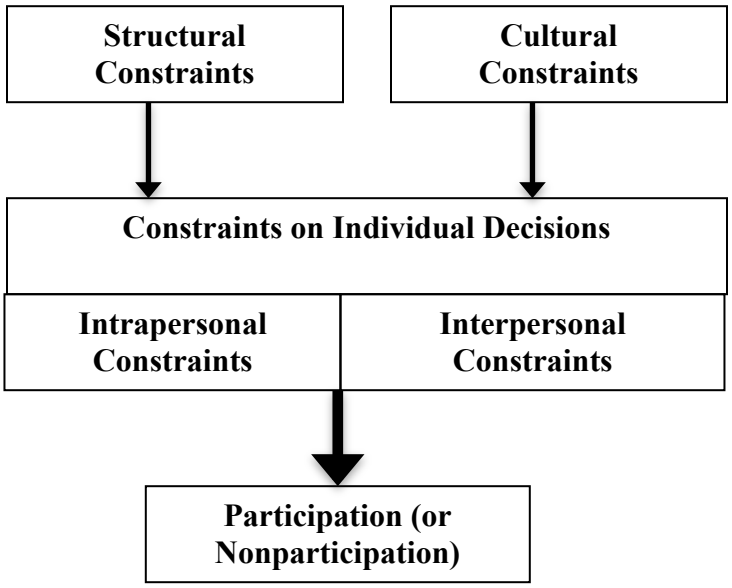

Figure 5.2. Refined model of leisure constraints (Chick & Dong, 2003)

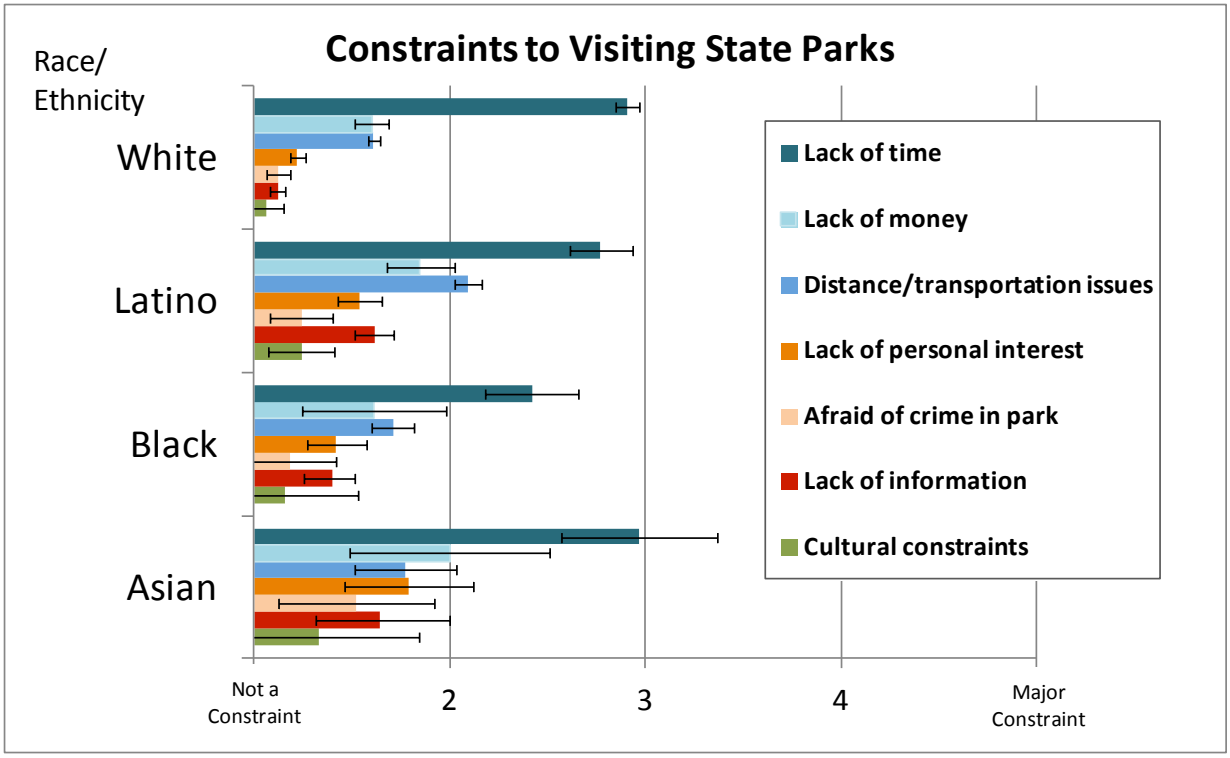

Figure 5.3. Onsite participants' reported constraints to visiting state parks (by race/ethnicity), summer 2010 (n = 964)

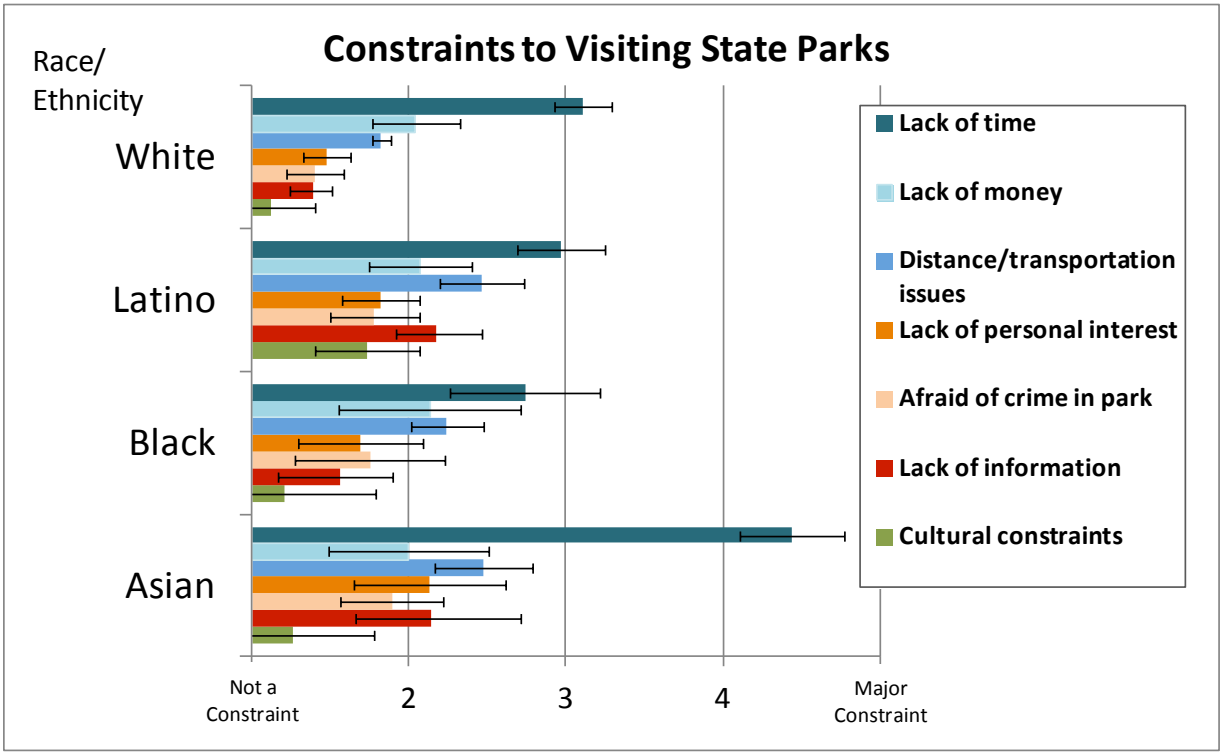

Figure 5.4. Off-site participants' reported constraints to visiting state parks (by race/ethnicity), summer 2011 (n = 214)

CHAPTER 6

SUMMARY AND RECOMMENDATIONS

Given recent and projected changes of the composition of the U.S. population, along with several important gaps in recreation research, this study investigated outdoor recreation as it applied to diverse Georgia residents. Georgia state park visitors and non-visitors were compared by socio-demographic variables (i.e., race/ethnicity, age, gender, and income) during two data collection phases: onsite and offsite. During the first phase, sampling locations included three parks in northern Georgia (i.e., Red Top Mountain, Fort Mountain, and Fort Yargo) where exit surveys, intercept surveys, and behavior observations (i.e., SOPARC) were used to collect data. Onsite data were collected during a pilot study from May—September 2009 and during a more comprehensive period during May—September in 2010. Onsite data from 2010 included 139 exit survey sessions (1,113 vehicles sampled), 5,192 intercept surveys, and 217 behavior observations (18,525 visitors observed). The second phase of this research included offsite sampling in eight flea markets located near focal state parks. Offsite data were collected during March-July 2011 in the form of 1,315 intercept surveys completed by customers and vendors. This study examined outdoor recreation as it applied to diverse Georgia residents by implementing three research objectives as hereto described in chapters 3-5. The following results highlight the findings of these objectives.

Summary

1. *To Examine the System for Observing Play and Recreation in Communities (SOPARC) as a Visitor Monitoring Tool in State Parks*

- Comparisons of exit survey, intercept survey, and SOPARC data resulted in strong similarities in visitor use patterns suggesting SOPARC presents a reliable and valid, cost effective instrument for measuring baseline visitation patterns in state parks.

2. *To Examine the Outdoor Recreation Participation Preferences, Motivations, and Perceived Benefits of State Park Visitors and Non-visitors*

- Outdoor recreation preferences varied by demographic variables (i.e., race/ethnicity, age, and gender).
- Activities in day use areas (i.e., picnicking/cookout, swimming, beach activities) were among the most popular for all visitors, but significantly more so for racial/ethnic minorities.
- White and Hispanic/Latino visitors preferred natural areas more than other racial/ethnic minority groups.
- Offsite survey respondents reported demographic differences in outdoor recreation preferences, particularly among different racial/ethnic groups.
- Relaxing with no main activity was the top outdoor recreation preference of offsite survey respondents.
- Social factors are among the most prominent motivations for visiting state parks and participating in outdoor recreation.
- Offsite data comparing park visitors to non-visitors found similar social motivations particularly among middle to younger aged populations.
- Racial/ethnic minorities are motivated to visit state parks because of developed and maintained areas.

- The top benefits experienced by visitors were increased quality of life, development of positive views of nature, improved mental health, and building/strengthening relationships with others.
- Data suggested park benefits are more prominent in the lives' of lower income visitors than visitors of other income groups.

3. *To Examine the Recreation Constraints of State Park Visitors and Non-visitors*

- Intrapersonal, interpersonal, and structural constraints were identified by park visitors and differed by race/ethnicity, income, education, and gender.
- Racial/ethnic minorities and visitors of lower income were generally more constrained than their counterparts.
- Structural constraints were the top rated constraints by both visitors and non-visitors.
- Cultural constraints (i.e., intrapersonal constraints dealing with perceptions of race/ethnicity) were reported more from racial/ethnic minority respondents than Whites.
- Offsite survey respondents reported very similar constraints to park visitors, however, with slightly higher ratings, suggesting they were generally more constrained.

Management Recommendations

This study was supported by the Georgia Department of Natural Resources State Parks and Historic sites Division, and hence has implications relevant to park managers and policy makers. These recommendations are:

Train park staff to administer SOPARC and begin collecting longitudinal baseline visitor data

A significant amount of financial support for state parks is based on visitor use data (Eric VanDeGenachte, Georgia Department of Natural Resources, personal communication, May, 2009). Park agencies that do not collect valid and reliable data, and hence, are unable to quantify

the value of their parks and the constituents that their parks serve, thereby missing much needed funding opportunities. By training park staff to implement SOPARC on a regular basis, parks can begin to establish critical data necessary to monitor and examine visitor patterns while enabling them to be more prepared to demonstrate the need for additional resources.

Ensure the cleanliness of state parks

Results from this study showed park cleanliness was the most important factor affecting visitor preferences, motivations in visiting state parks. The cleanliness of parks was a limiting factor constraining many Georgia residents from visiting state parks. Despite the financial hardships parks are experiencing, preexisting resources should be allocated in parks to ensure basic, daily cleaning and associated maintenance is a priority as it significantly impacts visitors. Park volunteers (i.e., campground hosts, individuals performing community service) could be very useful in meeting this need. Additionally, many facilities are outdated and should be renovated to improve opportunities for positive visitor experiences.

Provide opportunities for socially based outdoor recreation

Visitors in this study suggested state parks provide exceptional opportunities for socially based outdoor recreation. Providing more opportunities for these types of interactions to take place (e.g., larger picnic tables with more grills, group discounts, playgrounds, etc.) would likely facilitate visitors' needs and increase park visitation.

Create programs, activities, and services for families in parks.

Likewise, many people visit state parks to spend time with friends and family. Family units often have small children that could benefit from programs, activities, and services, targeted toward younger populations such as: campfire programs, ranger-led interpretive hikes, short (< one mile) hiking trails near day use areas, active nature centers, arts and craft activities,

etc. While these types of recreational initiatives may increase the need for staff, they also have the potential to increase visitor-staff interactions and increase the marketability of parks by offering specific, special interest programming.

Acknowledge and accommodate diverse park visitors

This study suggested that one fifth of visitors to Georgia state parks spoke only Spanish. Other visitors spoke additional languages besides English. It therefore behooves park managers to first recognize the diversity of their visitors and then attempt to accommodate those visitors. This may be accomplished through targeted cultural programming efforts (i.e., collective quincenllero celebrations, native land inheritance events, etc.) and by training park staff to be more culturally versed. The later may be achieved by conducting staff sensitivity training in which employees learn the cultural nuances that affect park visitation.

Provide more information about state park activities, facilities, and possibilities.

Increasing the amount of information regarding recreation opportunities (i.e., signs, brochures, exhibits, kiosks, etc.) in accessible locations throughout the parks would be useful for visitors. Having this information in multiple languages would also be useful for diverse populations. Also, advertising more outside of parks (i.e., billboards, signs, mailings, emails, etc.) would increase the availability of parks to individuals who may not have previously considered visiting a state park. Having rangers on bicycles rather than in cars where they have more capacity to speak and help visitors may also assist to provide more information about activities, facilities, recreation opportunities in state parks.

Collaborate with local community leaders for increased visitation.

Visitors in this study suggested one of the largest limitations that kept them from visiting state parks was the lack of information about parks. Informed leaders associated with community

groups (i.e., faith-based leaders, Rotary Club members, youth organizations, etc.) pose a potential solution to this problem. Many community leaders are in positions to distribute large amount of information and introduce park-based opportunities to individuals in their communities.

Limitations

This study had certain limitations. Three state parks and eight flea markets in northern Georgia were selected as onsite and offsite sampling locations. Sampling strategies were limited by financial and time constraints and did not represent a random sample of Georgia residents. Hence, while the results of this study reflect recreation patterns at these sites and the surrounding region, the application of these findings may be limited solely to these areas. Furthermore, inferences into outdoor recreation behavior at other sites should be undertaken with caution. Future studies could examine larger regions to compare these findings.

Flea markets were selected as open, public venues where demographically diverse Georgians (i.e., varying racial/ethnic and income groups) were readily accessible. Offsite responses from this sample may not be representative of non-visitors in Georgia. Furthermore, customer respondents completing surveys for the motivational candy bar may have been biased. Flea markets were selected in communities surrounding focal parks with the goal of gathering feedback from non-visitors residing close to parks, however, offsite respondents may not represent individuals residing close to parks.

Onsite data were also collected during peak visitation summer months (Memorial Day-Labor Day) in order to capture the largest number of respondents. Data were not gathered during the offseason and may be different from recreation patterns of visitors during the peak season. Inferences into visitation should consider the limited sample calendar used in this study.

Two White, bilingual males collected the majority of data used in this study. Survey responses may have been affected by the race or gender of researchers. For example, racial/ethnic minorities may have viewed researchers has authoritative figures and formed responses to surveys based upon what they thought would please researchers. Likewise, park behavior of certain groups (i.e., Hispanic/Latinos, women) may have been impacted from fear or intimidation from viewing researchers carrying paperwork and clipboards during data collection. Also, researchers have innate biases that despite striving for objectivity may affect their paradigms and interpretation of recreation patterns. Although surveys were available in English and Spanish, some respondents were illiterate.

Sampling methods used in this study had some limitations. While over 80% of visitors frequented recreation hotspots (i.e., areas where surveys were administered; beaches, picnic areas, and campgrounds) during their visit, there was an additional 20% that did not. The outdoor recreation behaviors of this group may have deviated from the majority of park visitors who completed surveys in recreation hotspot areas.

Finally, many chapters in this dissertation included reports of data pooled as sample averages across all parks and flea markets. This technique was used to show general patterns across sites and define "typical" attributes of state park visitors and non-visitors across different demographic groups. However, because the characteristics of participants at different research sites were no identical and sampling was not conducted using a randomized statically based protocol such as those used by the U.S. Forest Service Visitor Use Monitoring System (e.g., English, et al., 2002), pooled results provide only a rough representation of the overall sample. Additional analyses using post-weighting procedures could be used to account for certain over-

or under-represented subgroups within the sample populations and generate broader inferences regarding state park visitors and non-visitors (Vaske, 2008).

Conclusion

This research acknowledged changes in the composition of the U.S. population as motivation for examining socio-demographic factors (i.e., race/ethnicity, income, gender, and education) and their impact on outdoor recreation and visitation to state parks in Georgia. Gaps in previous research were addressed through empirical data collected in three state parks and in eight flea markets near focal parks using a combination of exit surveys, intercept surveys, and behavior observations. While previous studies have relied upon survey data and other costly measures for collecting state park data, this dissertation demonstrated SOPARC is a valid and reliable tool for gathering baseline visitor data. Findings also suggested respondents prefer clean, well-kept facilities and developed natural areas when visiting state parks.

The top motivations for park visitation were socially based (i.e., spend time with friends and family, and meet new people). From these motivations, park visitation and outdoor recreation participation resulted in several perceived benefits, including improved quality of life, which was especially true for lower income racial/ethnic minority populations. These groups were among the most constrained both in and out of the parks, signifying the importance of state parks in providing outdoor recreation opportunities for marginalized populations who may not have other options.

Future research could administer SOPARC in state parks and provide longitudinal data for visitor trend analysis. Additional research may also capitalize on expanding the model provided in this study of examining socio-demographic variables in state parks using exit surveys, intercept surveys, and behavior observations. The further application of this research

model in other states would further validate the use of these three data collection methods in state parks. The application of this model may also be applicable to other public land areas (i.e., national parks, forest service, and municipal parks). Given recent budget cuts agencies may benefit from using this research to collect baseline visitor trend data.

This study found flea markets to be effective venues for gathering outdoor recreation trend data for diverse populations. Further investigation into flea markets may reinforce these areas for other social science research and provide additional examination of offsite data, particularly data focused on recreation constraints. The important task of examining flea markets and other public venues for gathering offsite data for non-visitors to all public lands may help extend this state park based study into other areas relevant to natural resource management.

Additional suggestions for future research include collecting data on a twelve-month cycle to determine how off-season park use varies from peak season use. Understanding visitation patterns during off-season could be useful to park managers interested in increasing visitation outside high-use times. Future research investigating recreation patterns by socio-demographic variables may also benefit form employing racial/ethnic minorities and men and women to collect data. This may increase the survey responses and decrease feelings of fear or inequality among minority respondents. Studies may also use qualitative methods (i.e., focus groups and semi-structured interviews) to assess strategies for park managers to decrease recreation constraints and increase participation in parks that are often void of visitors (i.e., trails, undeveloped natural areas).

References

English, D., Kocis, S., Zarnoch, S., Arnold, J. (2001). Forest Service National Visitor Monitoring process: Research method documentation. *National Visitor Use Monitoring Program*. Retrieved from http://www.fs.fed.us/recreation/programs/nvum/

Vaske, J. (2008). Survey research and analysis: Applications in parks, recreation and human dimensions. *State College, PA: Venture Publishing.*

APPENDIX A

SURVEY RESEARCH SITES

Table A.1

Overview of Georgia State Park Sites Examined During Summer 2010 Data Collection

Park Information	GA County	Surveys Collected (day use areas & campgrounds)
Fort Mountain State Park 181 Fort Mountain Park Rd. Chatsworth, GA 30705 706-422-1932	Murray	Total: 1548 (480 from campgrounds)
Fort Yargo State Park 210 S. Broad St. Winder, GA 30680 770-867-3489	Barrow	Total: 1700 (238 from campgrounds)
Red Top Mountain State Park 50 Lodge Rd. SE Cartersville, GA 30121 770-975-0055	Bartow	Total: 1944 (408 from campgrounds)
	TOTAL ONSITE SURVEYS COLLECTED	**5192** (1142 from campgrounds)

Table A.2

Overview of North Georgia Flea Markets Examined During Summer 2011 Data Collection

Flea Market Information	GA County	Surveys Collected (vendors & customers)
285 Flea Market 4525 Glenwood Rd. Decatur, GA 30032 404-289-4747	DeKalb	Total: 52
Big D Flea Market 3451 Cleveland Hwy Dalton, GA 30721 706-259-3269	Whitfield	Total: 304 (58 from customers)
Buford Highway Flea Market 5000 Buford Hwy Chamblee, GA 30341 678-209-0451	DeKalb	Total: 55
J & J Flea Market 11661 Commerce Rd. Athens, GA 30607 706-613-2410	Clarke	Total: 544 (282 from customers)
Marietta Flea Market 550 Franklin Rd. Marietta, GA 30067 770-419-2555	Cobb	Total: 41
Pendergrass Flea Market 5641 US Hwy 129 N Pendergrass, GA 30567 706-693-4466	Jackson	Total: 210 (46 from customers)
Tucker Flea Market 3965 Lawrenceville Hwy Tucker, GA 30084 678-395-6631	DeKalb	Total: 38
Yesteryear Flea Market 43337 Hwy 92 Acworth, GA 30101 770-974-6259	Cobb	Total: 71
	TOTAL OFFSITE SURVEYS COLLECTED	**1315** (386 from customers)

APPENDIX B

PHOTOGRAPHS OF STATE PARK STUDY SITES AND RESEARCH TEAM

Figure B.1. Photographs of recreation hotspots near beach areas at (a) Fort Mountain, (b) Fort Yargo, and (c) Red Top Mountain State Parks, 2009-2010

Figure B.2. State park research team: (*from left*) Jason Whiting and Lincoln Larson, Summer 2010

Figure B.3. State park research team (*seated center*) with Fort Mountain State Park Visitors, Summer 2010

APPENDIX C

EXIT SURVEY COVER SHEET AND DATA COLLECTION FORM

Exit Survey Cover Sheet DATES _____ (DAYS _____) PARK _____ OBSERVERS _____

DATE	TIME (Start/End)	WEATHER	CAR COUNT	TOTAL PEOPLE	SEX		AGE GROUP		ETHNICITY				HOTSPOT		
					F	M	<18	≥18	W	B	L	O	N	Y	W

Exit Survey Data Sheet

DATE _________ OBS _____ PARK ______ BEGIN ________ END ________ WEATHER ________ **TOTAL VEHICLES:**

TOTAL PEOPLE	SEX		AGE		ETHNIC				TIME IN PARK (hrs.)	MAIN ACTIVITY	HOTSPOT (Y, N or worker)	RETURN (Y or N)
	F	M	<18	≥18	W	B	L	O				

Exit Survey Cover Sheet DATES _____ (DAYS _____) PARK _____ OBSERVERS _____

DATE	TIME (Start/End)	WEATHER	CAR COUNT	TOTAL PEOPLE	SEX		AGE GROUP		ETHNICITY				HOTSPOT		
					F	M	<18	≥18	W	B	L	O	N	Y	W

Exit Survey Data Sheet

DATE _________ OBS _____ PARK ______ BEGIN ________ END ________ WEATHER ________ **TOTAL VEHICLES:**

TOTAL PEOPLE	SEX		AGE		ETHNIC				TIME IN PARK (hrs.)	MAIN ACTIVITY	HOTSPOT (Y, N or worker)	RETURN (Y or N)
	F	M	<18	≥18	W	B	L	O				

APPENDIX D

INTERCEPT SURVEY PROTOCOL AND CONSENT SCRIPT

INTERCEPT SURVEY PROTOCOL & CONSENT SCRIPT

Data Collection Procedures:

1. Every 3rd person will be approached by the survey administrator and asked to take a voluntary survey. During this initial introduction, the survey administrator will briefly outline the purpose of the study and the procedures to be followed (below).

2. *If this subject declines*, this is the end of the interaction. The survey administrator will note (1) reason subject did not respond and (2) subject gender, race/ethnicity, and approximate age on the survey cover sheet before approaching the next person.

3. *If the subject accepts*, the subject will be given a clipboard with a pencil and survey attached. After the survey is distributed, the survey administrator will remain in the general area – approaching other people and answering questions as necessary. The survey administrator will return to collect the survey and answer any final questions after 10-15 minutes.

4. After the survey is completed, the subject will be thanked for his/her participation in the study. There will not be any follow up.

Project Information for Participants:

Title of Project: Diversity in Georgia State Parks

Principal Investigators: Dr. Gary Green, Mr. Lincoln Larson, Mr. Jason Whiting
Warnell School of Forestry and Natural Resources, University of Georgia, Athens, GA 30602
706.542.6556; ggreen@warnell.uga.edu

Purpose of the Study: The purpose of this study is to understand who is visiting Georgia state parks, why they are coming, and ways in which state parks can be better managed for the public's use and enjoyment.

Your involvement: You will be asked to fill out a survey to help us evaluate your experiences within Georgia state parks. The survey should take 10-15 minutes. To participate in the study, you must be 18 years of age or older.

Discomforts and Risks: There are no anticipated risks or discomforts in participating in this research beyond those experienced in everyday life.

Benefits: This survey will allow visitors to provide information to the Georgia Department of Natural Resources (DNR) that can help to guide future policy.

Statement of Confidentiality: Your identity will not be associated with your responses. The data will be stored and secured in the Warnell School of Forestry and Natural Resources on the campus of the University of Georgia in a locked file cabinet and in password protected files. In the event of a publication or presentation resulting from the research, no personally identifiable information will be shared.

Right to Ask Questions: You can ask questions about this research. Contact Gary Green (contact information above) with questions. Questions or concerns about your rights as a research participant should be directed to The Chairperson, University of Georgia Institutional Review Board, 612 Boyd GSRC, Athens, Georgia 30602-7411; telephone (706) 542-3199; email address irb@uga.edu.

Voluntary Participation: Your decision to be in this research is voluntary. You can refuse to participate or stop at any time without penalty or loss of benefits to which you are otherwise entitled. You do not have to answer any questions you do not want to answer. Completion and return of the surveys implies that you have read the information in this form and consent to participate in the research.

APPENDIX E

INTERCEPT SURVEY COVER SHEET

GA State Parks Survey Cover Sheet

DATE _____ DAY OF WEEK _____ OBSERVER _____

PARK _____ SURVEY AREA _____

START TIME: _____ END TIME: _____

WEATHER: Sunny Partly Cloudy Mostly Cloudy Rain Heavy Rain

SURVEYS COLLECTED (Totals):

Version 1 (Activities)		Version 2 (Constraints)		Version 3 (Fees)		Version 4 (Phys. Activity)		Kids (Kids' Out. Rec.)	
Eng	Span	Eng	Span	Eng	Span	Eng	Span	Eng	Span

NON-RESPONSES:

GENDER		AGE GROUP			ETHNICITY				REASON FOR NOT RESPONDING
F	M	18-30	31-59	60+	W	B	L	O	

RESPONSE RATE:

Total Surveys Collected + Total Non-Responses = Number of People Approached

APPENDIX F

ONSITE INTERCEPT SURVEY FORMS

(Examples for Fort Yargo State Park: 5 Versions in English, 5 Versions in Spanish)

FY1

Georgia State Parks Visitor Survey

The Georgia Dept. of Natural Resources (GA DNR) and the University of Georgia are conducting a study of visitors to state parks. Your responses will help GA DNR to better manage state parks for your use and enjoyment. Please take a few minutes to complete this questionnaire. Your help is voluntary and responses are anonymous and confidential.

1. Including today, how many times have you visited Fort Yargo in the past 12 months? _____ visits

2. In what year did you first visit Fort Yargo? Year: _____ **(Please fill in blank.)**

3. About how often will you visit Fort Yargo this summer (May-September)? **(Check ONE box.)**

☐ More than once a week ☐ About once a week

☐ About once a month ☐ About once this summer

4. Including you, how many people traveled with you to Fort Yargo today? _____ people

4a. How many of those traveling with you today are under age 18? _____ people

5. Please **check ALL** the activities you participated in during your visit to Fort Yargo today.

Land-based:	**Water-based:**	**Other:**
☐ Biking	☐ Beach activities	☐ Camping
☐ Hiking/walking	☐ Canoeing/kayaking	☐ Relaxing/no main activity
☐ Jogging/running	☐ Fishing	☐ Visiting historic fort
☐ Picnic/cookout	☐ Motor boating	☐ Visitor center exhibit
☐ Playground	☐ Swimming	☐ Wildlife viewing/photography
☐ Team sports		☐ Other (please specify): _____

6. How IMPORTANT are the following factors in your decision to participate in outdoor recreation at Fort Yargo? (**Circle ONE response for each item.**)

	Not At All Important	Slightly Important	Moderately Important	Very Important	Extremely Important
Spending time with family	1	2	3	4	5
Spending time with friends	1	2	3	4	5
Meeting new people	1	2	3	4	5
Exercising	1	2	3	4	5
Being physically fit	1	2	3	4	5
Relaxing and resting	1	2	3	4	5
Experiencing solitude, peace and calm	1	2	3	4	5
Doing fun and exciting things	1	2	3	4	5
Being close to nature	1	2	3	4	5
Discovering and learning about nature	1	2	3	4	5

Please turn over

7. How IMPORTANT are the following factors to you during your visit(s) to Fort Yargo?

	Not Important	Slightly Important	Moderately Important	Very Important	Extremely Important
Natural areas (forests, trails, etc.)	1	2	3	4	5
Maintained outdoor areas (beaches, open picnic areas, etc.)	1	2	3	4	5
Developed areas/facilities (shelters, restrooms, visitor center, etc.)	1	2	3	4	5
Parking	1	2	3	4	5
Concession stands/food services	1	2	3	4	5
Stores selling souvenirs and supplies	1	2	3	4	5
Rules to maintain a safe environment	1	2	3	4	5
Friendly, informative rangers	1	2	3	4	5
A place to explore and experience nature	1	2	3	4	5
A place to picnic, barbecue, or cook out	1	2	3	4	5
A place to recreate with family	1	2	3	4	5

8. Please state whether you DISAGREE or AGREE with the following statements concerning visits to Fort Yargo. (**Circle ONE response per item.)**

Visits to Fort Yargo help me to:	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Develop positive views of nature	1	2	3	4	5
Build and strengthen my relationships with others	1	2	3	4	5
Interact with people from different backgrounds	1	2	3	4	5
Improve my physical health	1	2	3	4	5
Improve my mental health	1	2	3	4	5
Increase the quality of my life	1	2	3	4	5

9. What is your gender? ☐ Female ☐ Male

10. What is your age? _____ years old

11. What is your race/ethnicity? (**Check ALL that apply.**)

☐ White or Caucasian ☐ Black or African American ☐ American Indian

☐ Hispanic/Latino (specify origin): _____ ☐ Asian (specify origin): _____ ☐ Other (specify origin): _____

12. What language do you speak at home? (**Check ONE response.**)

☐ Mostly English ☐ English and Spanish ☐ Mostly Spanish ☐ Other: _____

13. What is the highest level of education you have completed? **(Please check ONE response.)**

☐ Some high school ☐ High school or GED ☐ College, tech. school, or other advanced degree

14. How many people currently live in your household? _____ people

15. Please indicate your total household income range before taxes last year. (**Check ONE box.)**

☐ $25,000 or less ☐ $25,001 to $50,000 ☐ $50,001 to $75,000

☐ $75,001 to $100,000 ☐ $100,001 or more ☐ Refuse to answer

Thank you for your participation

FY2

Georgia State Parks Visitor Survey

The Georgia Dept. of Natural Resources (GA DNR) and the University of Georgia are conducting a study of visitors to state parks. Your responses will help GA DNR to better manage state parks for your use and enjoyment. Please take a few minutes to complete this questionnaire. Your help is voluntary and responses are anonymous and confidential.

1. Including today, how many times have you visited Fort Yargo in the past 12 months?

   _____ visits **(Please fill in blank.)**

2. Including you, how many people traveled with you to Fort Yargo today? _____ people

   2a. How many of those traveling with you today are under age 18? _____ people

3. How many miles did you travel to visit Fort Yargo today? _____ miles

4. Which of the following best describes your group today? **(Check ONE box.)**

☐ Alone (just you) ☐ Friends ☐ Immediate family (parents and children)

☐ Extended family (other relatives) ☐ Organized group (please specify): _____

5. What was the **MAIN ACTIVITY** you participated in during your visit to Fort Yargo today? (**Please write your main activity below**.)

_____

6. Please indicate whether each of the following obstacles or barriers is a reason that **KEEPS YOU** from visiting Fort Yargo as often as you would like. (**Circle ONE response for each item.)**

Obstacle	Not a Reason		Minor Reason		Major Reason
The cost is too high	1	2	3	4	5
I do not have enough free time	1	2	3	4	5
The park is too far from my home	1	2	3	4	5
I have no way to get to the park	1	2	3	4	5
I am not interested in outdoor recreational activities	1	2	3	4	5
The park does not provide enough fun things for me or my family to do	1	2	3	4	5
I have no friends or family members to do activities with	1	2	3	4	5
My family or I have health problems	1	2	3	4	5
I am afraid of wild animals and outdoor pests	1	2	3	4	5
I am afraid of perceived crime in the park	1	2	3	4	5
Facilities are in poor condition	1	2	3	4	5
Park employees are not friendly	1	2	3	4	5
Lack of information about recreation opportunities	1	2	3	4	5
Information about the park (e.g. signs, maps) is not in my language	1	2	3	4	5

Obstacle	Not a Reason		Minor Reason		Major Reason
I do not approve of activities other visitors are doing	1	2	3	4	5
I feel uncomfortable based on my gender	1	2	3	4	5
I feel uncomfortable based on my race/ethnicity	1	2	3	4	5
I feel uncomfortable around people from other racial/ethnic groups	1	2	3	4	5
People from my racial/ethnic group often experience conflicts with other park visitors	1	2	3	4	5
People from my racial/ethnic group DO NOT feel welcome at Ft. Yargo	1	2	3	4	5
I prefer to recreate elsewhere (where?): _____	1	2	3	4	5

7. How LIKELY are your friends or family to do the following things? (**Circle ONE number per item.)**

	Very Unlikely	Unlikely	Neither	Likely	Very Likely
Spend a day at a state park	1	2	3	4	5
Pay a state park entrance fee	1	2	3	4	5
Pay a state park activity fee	1	2	3	4	5
Participate in ACTIVE outdoor activities (like running)	1	2	3	4	5
Participate in SOCIAL outdoor activities (like a picnic)	1	2	3	4	5
Participate in outdoor NATURE activities (like hiking)	1	2	3	4	5
Enjoy time outdoors in nature	1	2	3	4	5
Encourage me to be outdoors in nature	1	2	3	4	5
Appreciate recreation activities at Fort Yargo	1	2	3	4	5

8. What is your gender? ☐ Female ☐ Male

9. What is your age? _____ years old

10. What is your race/ethnicity? (**Check ALL that apply.**)

☐ White or Caucasian ☐ Black or African American ☐ American Indian

☐ Hispanic/Latino (specify origin): _____ ☐ Asian (specify origin): _____ ☐ Other (specify origin): _____

11. What language do you speak at home? (**Check ONE response.**)

☐ Mostly English ☐ English and Spanish ☐ Mostly Spanish ☐ Other: _____

12. What is the highest level of education you have completed? **(Please check ONE response.)**

☐ Some high school ☐ High school or GED ☐ College, tech. school, or other advanced degree

13. How many people currently live in your household? _____ people

14. Please indicate your total household income range before taxes last year. (**Check ONE box.)**

☐ $25,000 or less ☐ $25,001 to $50,000 ☐ $50,001 to $75,000

☐ $75,001 to $100,000 ☐ $100,001 or more ☐ Refuse to answer

15. What could park managers do to encourage you to camp and/or use park trails MORE OFTEN at Fort Yargo? (**Please write suggestions below)**:

FY3

Georgia State Parks Visitor Survey

The Georgia Dept. of Natural Resources (GA DNR) and the University of Georgia are conducting a study of visitors to state parks. Your responses will help GA DNR to better manage state parks for your use and enjoyment. Please take a few minutes to complete this questionnaire. Your help is voluntary and responses are anonymous and confidential.

1. Including today, how many times have you visited Fort Yargo in the past 12 months? _____ visits

2. In what year did you first visit Fort Yargo State Park? Year: _____

3. Including you, how many people traveled with you to Fort Yargo today? _____ people

   3a. How many of those traveling with you today are under age 18? _____ people

4. How many miles did you travel to visit Fort Yargo today? _____ miles

5. What was the **MAIN ACTIVITY** you participated in during your visit to Fort Yargo today? (**Please write your main activity below**.)

_____

6. Funding Georgia state parks continues to be a major challenge. Would you be willing to pay more for your daily entrance fee if you knew the money was going directly to Fort Yargo? **(Check ONE box.)**

   ☐ No, I would not pay more

   ☐ Yes, I would pay $ _____ more for a daily entrance fee to Ft. Yargo **(Write number in blank.)**

7. Have you purchased a Georgia State Parks ANNUAL PASS in the past 12 months?

   ☐ Yes ☐ No

8. If the daily entrance fee for getting in to Fort Yargo was $_____ per vehicle, how would your visitation to Fort Yargo change? **(Check ONE box.)**

   ☐ My visits in a typical year would be about the same.

   ☐ I would increase my visits to _____ visits per year **(Write number in blank.)**

   ☐ I would decrease my visits to _____ visits per year **(Write number in blank.)**

9. How would you PREFER to pay to visit a state park and participate in outdoor recreation activities? (**Check ONE box.**)

   ☐ Per vehicle parking fee

   ☐ Per person entrance fee

   ☐ Per person activity fee (no entrance fee, but pay a certain amount per person each time you use a different facility such as camping, fishing, boating, etc.)

Please turn over

10. Please indicate whether you DISAGREE or AGREE with the following statements concerning your opinion of Fort Yargo State Park. (**Circle ONE response for each statement.**)

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
For me, Fort Yargo is a special place.	1	2	3	4	5
I'm happier visiting Fort Yargo than other parks in north Georgia.	1	2	3	4	5
Fort Yargo is the best place for me to recreate.	1	2	3	4	5
There are other places nearby where I can easily do the things I do at Fort Yargo.	1	2	3	4	5
Recreation at Fort Yargo is more important to me than recreation at any other place.	1	2	3	4	5
Fort Yargo is pretty much like any other state or local park.	1	2	3	4	5

11. What is your gender? ☐ Female ☐ Male

12. What is your age? _____ years old

13. What is your race/ethnicity? (**Check ALL that apply.**)

☐ White or Caucasian ☐ Black or African American ☐ American Indian

☐ Hispanic/Latino (specify origin): _____ ☐ Asian (specify origin): _____ ☐ Other (specify origin): _____

14. What language do you speak at home? (**Check ONE response.**)

☐ Mostly English ☐ English and Spanish ☐ Mostly Spanish ☐ Other: _____

15. What is the highest level of education you have completed? **(Please check ONE response.)**

☐ Some high school ☐ High school or GED ☐ College, tech. school, or other advanced degree

16. How many people currently live in your household? _____ people

17. Please indicate your total household income range before taxes last year. (**Check ONE box.)**

☐ $25,000 or less ☐ $25,001 to $50,000 ☐ $50,001 to $75,000

☐ $75,001 to $100,000 ☐ $100,001 or more ☐ Refuse to answer

18. Please provide the zip code for your permanent address. _____

Please write any other comments or suggestions for park managers in the space below:

Thanks again for your time.

FY4

Georgia State Parks Visitor Survey

The Georgia Dept. of Natural Resources (GA DNR) and the University of Georgia are conducting a study of visitors to state parks. Your responses will help GA DNR to better manage state parks for your use and enjoyment. Please take a few minutes to complete this questionnaire. Your help is voluntary and responses are anonymous and confidential.

1. Including today, how many times have you visited Fort Yargo in the past 12 months? _____ visits

2. Including you, how many people traveled with you to Fort Yargo today? _____ people

3. How many days during A TYPICAL WEEK do you participate in PHYSICAL ACTIVTITES (including walking) that cause an increase in breathing or heart rate for at least 30 minutes at a time?

_____ days per week **(Please write number in blank.)**

4. Please tell us HOW OFTEN you use each of the following locations when you participate in PHYSICAL ACTIVITIES. (**Circle ONE response for each item.)**

	Never	Rarely	Occasionally	Often	Very Often
Fort Yargo State Park	1	2	3	4	5
Other Georgia state parks	1	2	3	4	5
Neighborhood parks	1	2	3	4	5
Neighborhood sidewalks/streets	1	2	3	4	5
Gym/recreation center	1	2	3	4	5
Home/backyard	1	2	3	4	5
Work	1	2	3	4	5

5. How much TOTAL time did you *or* will you spend in Fort Yargo during your visit today?

_____ hours and/or _____ minutes **(Write number in blanks.)**

5a. How much of this time did you *or* will you spend doing **MODERATE physical activities** that cause a small increase in breathing or heart rate (such as fast walking or swimming) for at least 10 minutes at a time?

_____ hours and/or _____ minutes **(Write number in blanks.)**

5b. How much of this time did you *or* will you spend doing **VIGOROUS physical activities** that cause a large increase in breathing or heart rate (such as running or fast biking) for at least 10 minutes at a time?

_____ hours and/or _____ minutes **(Write number in blanks.)**

6. Please **check ALL** the areas you use for physical activities during your visit(s) to Fort Yargo.

☐ Biking trails ☐ Open green space/sport fields ☐ Picnic areas/playgrounds

☐ Boating areas ☐ Paved courts ☐ Swimming areas

☐ Dirt/gravel hiking trails ☐ Paved walking trails ☐ Other (please specify): _____

Please turn over.

7. How IMPORTANT are the following items for promoting your PHYSICAL ACTIVITY at Fort Yargo? (**Circle ONE response for each item.**)

	Not At All Important	Slightly Important	Moderately Important	Very Important	Extremely Important
Natural scenery	1	2	3	4	5
Developed areas and facilities	1	2	3	4	5
A variety of activity choices	1	2	3	4	5
Open green space in which to play	1	2	3	4	5
Accessible recreation opportunities	1	2	3	4	5
Seeing other active visitors	1	2	3	4	5
Being with active friends and family	1	2	3	4	5
A safe environment	1	2	3	4	5

8. What is your gender? ☐ Female ☐ Male

9. What is your age? _____ years old

10. What is your race/ethnicity? (**Check ALL that apply.**)

☐ White or Caucasian ☐ Black or African American ☐ American Indian

☐ Hispanic/Latino (specify origin): _____ ☐ Asian (specify origin): _____ ☐ Other (specify origin): _____

11. What language do you speak at home? (**Check ONE response.**)

☐ Mostly English ☐ English and Spanish ☐ Mostly Spanish ☐ Other: _____

12. What is the highest level of education you have completed? **(Please check ONE response.)**

☐ Some high school ☐ High school or GED ☐ College, tech. school, or other advanced degree

13. How many people currently live in your household? _____ people

14. Please indicate your total household income range before taxes last year. (**Check ONE box.)**

☐ $25,000 or less ☐ $25,001 to $50,000 ☐ $50,001 to $75,000

☐ $75,001 to $100,000 ☐ $100,001 or more ☐ Refuse to answer

15. Please provide the zip code for your permanent address._____

16. What could state park managers do to help increase your participation in outdoor physical activities at Fort Yargo? (**Please write suggestions in the space below.)**

Thanks again for your time.

FYkids

Georgia State Parks Visitor Survey

The Georgia Dept. of Natural Resources (GA DNR) and the University of Georgia are conducting a study of visitors to state parks. Your responses will help GA DNR to better manage state parks for your use and enjoyment. Please take a few minutes to complete this questionnaire. Your help is voluntary and responses are anonymous and confidential.

Children's Outdoor Recreation. *When answering the following questions, think of* ***the ONE child UNDER AGE 18 in your group today*** *who had the* ***LAST BIRTHDAY****.*

1. What is your relationship to this child?

☐ Parent ☐ Aunt/Uncle ☐ Cousin

☐ Grandparent ☐ Sibling ☐ Other (specify): _____

2. Please **check ALL** the activities this child participated in during your visit to Fort Yargo today.

Land-based:	**Water-based:**	**Other:**
☐ Biking	☐ Beach activities	☐ Camping
☐ Hiking/walking	☐ Canoeing/kayaking	☐ Relaxing/no main activity
☐ Jogging/running	☐ Fishing	☐ Visiting historic fort
☐ Mini golf	☐ Motor boating	☐ Visitor center exhibit
☐ Picnic/cookout	☐ Swimming	☐ Wildlife viewing/photography
☐ Playground		☐ Other (please specify):
☐ Team sports		_____

3. Please state whether you DISAGREE or AGREE with the following statements concerning this child's visits to Fort Yargo. (**Circle ONE response per item.)**

Visits to Fort Yargo help this child to:	**Strongly Disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
Enjoy time with family and friends	1	2	3	4	5
Develop social skills	1	2	3	4	5
Increase physical activity	1	2	3	4	5
Improve physical health	1	2	3	4	5
Improve mental health	1	2	3	4	5
Try new things	1	2	3	4	5
Discover and learn about nature	1	2	3	4	5
Appreciate and respect nature	1	2	3	4	5
Other (specify): _____	1	2	3	4	5

Please turn over.

4. How many days during a TYPICAL WEEK does this child participate in PHYSICAL ACTIVITIES (including walking) that cause an increase in breathing or heart rate for at least 60 minutes at a time?

_____ days per week **(Please write number in blank.)**

5. How much TOTAL time did this child *or* will this child spend in Fort Yargo State Park during your visit today?

_____ hours and/or _____ minutes **(Write number in blanks.)**

5b. How much of this time did *or* will this child spend doing **MODERATE physical activities** that cause a small increase in breathing or heart rate (such as fast walking or swimming) for at least 10 minutes at a time?

_____ hours and/or _____ minutes **(Write number in blanks.)**

5c. How much of this time did *or* will this child spend doing **VIGOROUS physical activities** that cause a large increase in breathing or heart rate (such as running or fast biking) for at least 10 minutes at a time?

_____ hours and/or _____ minutes **(Write number in blanks.)**

6. To the best of your knowledge, about how often will this child visit Fort Yargo this summer (May-September)? (**Please check ONE response**.)

☐ More than once a week ☐ About once a week

☐ About once a month ☐ About once this summer

7. How old is this child? _____ years old

8. What is the gender of this child? ☐ Female ☐ Male

9. What is the race/ethnicity of this child? (**Check ALL that apply.**)

☐ White or Caucasian ☐ Black or African American ☐ American Indian

☐ Hispanic/Latino (specify origin): _____ ☐ Asian (specify origin): _____ ☐ Other (specify origin): _____

10. What could park managers do to help increase this child's participation in outdoor physical activities at Fort Yargo? (**Please write response in space below**.)

Thanks again for your time.

FY1S

Encuesta para los Visitantes de los Parques Estatales de Georgia

El Departamento de Recursos Naturales de Georgia (GA DNR) y la Universidad de Georgia están llevando a cabo un estudio sobre los visitantes a los parques estatales. Sus respuestas ayudarán GA DNR a manejar los parques de modo que usted pueda disfrutarlos más. Por favor tome unos minutos para completar esta encuesta. La participación es voluntaria y sus respuestas son anónimas y confidenciales.

1. Incluyendo hoy, ¿cuántas veces ha visitado a Fort Yargo usted en los últimos 12 meses? _____ visitas

2. ¿En qué año hizo usted su primero visita a Fort Yargo? Año: _____

3. ¿Con qué frecuencia visitará a Fort Yargo usted este verano (mayo-septiembre)? (**Marque UNA caja.)**

☐ Más de una vez por semana ☐ Aproximadamente una vez a la semana

☐ Aproximadamente una vez al mes ☐ Aproximadamente una vez este verano

4. Incluyendo usted, ¿cuántas personas viajaron con usted a Fort Yargo hoy? _____ personas

4a. ¿Cuántos de aquellos viajando con usted hoy tienen menos de 18 años?_____ personas

5. Por favor **marque TODAS** las actividades en las que usted participó durante su visita hoy.

Base de tierra:	**Base de agua:**	**Otra:**
☐ Ciclismo	☐ Actividades en la playa	☐ Acampar
☐ Caminata	☐ Canoa/kayak	☐ Relajación/no hay actividad principal
☐ Correr/trotar	☐ Pescar	☐ Visitar al fuerte histórico
☐ Picnic	☐ Bote a motor	☐ Exhibición del centro de visitantes
☐ Zona de juegos	☐ Natación	☐ Observación de fauna/fotografía
☐ Deportes de equipo		☐ Otra (**por favor detalle**): _____

6. Por favor indique el nivel de IMPORTANCIA de los siguientes factores cuando usted está decidiendo si va a visitar o no Fort Yargo? (**Marque UNA SOLA respuesta para cada caso.**)

	Sin importancia	**Poca importancia**	**Mas o menos importante**	**Algo importante**	**Muy importante**
Pasar tiempo con mi familia	1	2	3	4	5
Pasar tiempo con mis amigos	1	2	3	4	5
Conocer gente	1	2	3	4	5
Ejercitarme	1	2	3	4	5
Estar en buena forma física	1	2	3	4	5
Descansar y relajarme	1	2	3	4	5
Disfrutar la soledad, paz y calma	1	2	3	4	5
Participar en actividades divertidas	1	2	3	4	5
Estar cerca de naturaleza	1	2	3	4	5
Aprender sobre y explorar la naturaleza	1	2	3	4	5

7. ¿Qué IMPORTANCIA tienen los factores siguientes a usted durante su visita(s) a Fort Yargo?

	Sin importancia	Poca importancia	Mas o menos importante	Algo importante	Muy importante
Áreas naturales (bosques, caminos, etc.)	1	2	3	4	5
Áreas mantenidas al aire libre (playas, abra áreas de picnic, etc.)	1	2	3	4	5
Áreas/instalaciones desarrolladas (refugios, servicios, centro de visitantes, etc.)	1	2	3	4	5
Estacionamento	1	2	3	4	5
Concesiones o servicios de alimento	1	2	3	4	5
Tiendas que venden recuerdos y provisiones	1	2	3	4	5
Reglas de mantener un ambiente seguro	1	2	3	4	5
Empleados del parque amistosos y simpático	1	2	3	4	5
Un lugar para explorar la naturaleza	1	2	3	4	5
Un lugar para picnic o hacer barbacoa	1	2	3	4	5
Un lugar para recrear con la familia	1	2	3	4	5

8. Por favor indique si usted NO ESTA o ESTÁ DE ACUERDO con las declaraciones siguientes acerca de sus visitas a Fort Yargo. (**Marque UNA SOLA respuesta para cada frase.**)

Las visitas a Fort Yargo me ayudan a:	Totalmente en Desacuerdo	En Desacuerdo	Neutral	De Acuerdo	Totalmente de Acuerdo
Desarrollar actitudes positivas sobre la naturaleza	1	2	3	4	5
Construir y reforzar mis relaciones con otra gente	1	2	3	4	5
Conocer gente de razas diferentes	1	2	3	4	5
Mejorar mi salud física	1	2	3	4	5
Mejorar mi salud mental	1	2	3	4	5
Mejorar mi calidad de vida	1	2	3	4	5

9. ¿Cuál es su sexo? ☐ Femenino ☐ Masculino → 10. ¿Cuál es su edad? _____ años

11. ¿Cuál es su raza o grupo étnico? **(Marque TODAS las que aplican.)**

☐ Blanco o Caucásico ☐ Negro o Afro Americano ☐ Indígena Americana

☐ Hispanic/Latino (indique origen): _____ ☐ Asiático (indique origen): _____ ☐ Otro: _____

12. ¿Qué idioma se habla principalmente en su hogar? (**Marque UNA SOLA respuesta.**)

☐ Más en Inglés ☐ Inglés e Español (mezlca) ☐ Más en Español ☐ Otra: _____

13. ¿Cuál es el nivel educativo más alto que ha completado? **(Marque UNA SOLA respuesta.)**

☐ Educación secundaria incompleta ☐ Graduado de escuela secundaria ☐ Graduado de una universidad

14. ¿Cuántas personas viven actualmente en su hogar? _____ personas

15. Por favor indique el rango de los ingresos totales del año pasado para su hogar antes de la deducción de impuestos. (**Marque UNA SOLA respuesta.)**

☐ $25,000 o menos ☐ $25,001 a $50,000 ☐ $50,001 a $75,000

☐ $75,001 a $100,000 ☐ $100,001 o más ☐ Prefiero no contestar

¡Muchas gracias por su tiempo!

FY2S

Encuesta para los Visitantes de los Parques Estatales de Georgia

El Departamento de Recursos Naturales de Georgia (GA DNR) y la Universidad de Georgia están llevando a cabo un estudio sobre los visitantes a los parques estatales. Sus respuestas ayudarán GA DNR a manejar los parques de modo que usted pueda disfrutarlos más. Por favor tome unos minutos para completar esta encuesta. La participación es voluntaria y sus respuestas son anónimas y confidenciales.

1. Incluyendo hoy ¿cuántas veces ha visitado a Fort Yargo usted en los últimos 12 meses? _____ visitas

2. Incluyendo usted, ¿cuántas personas viajaron con usted a Fort Yargo hoy? _____ personas

   2a. ¿Cuántos de aquellos viajando con usted hoy tienen menos de 18 años?_____ personas

3. ¿Cuántas millas viajó usted para visitar a Fort Yargo hoy? _____ millas

4. ¿Cuál de las siguientes opciones describe mejor su grupo hoy?

   ☐ Sólo usted ☐ Amigos ☐ Familia inmediata (padres y hijos)

   ☐ Familia ampliada (con otros parientes) ☐ Grupo organizado (**especifique**): _____

5. ¿Cuál era su **ACTIVIDAD PRINCIPAL** durante su visita hoy? **(Escriba esta actividad por debajo.)**

_____

6. Por favor indique si cada uno de los obstáculos representa una razón que LE IMPIDE visitar a Fort Yargo tan frecuentemente como le gustaría. (**Marque UNA SOLA respuesta para cada obstáculo.)**

Obstáculo	No es razón		Mas o menos es una razón		Es la razón principal!
El costo es demasiado alto	1	2	3	4	5
No tengo tiempo libre para visitar	1	2	3	4	5
El parque queda muy lejos de mi casa	1	2	3	4	5
No tengo transporte para viajar al parque	1	2	3	4	5
No estoy interesado en actividades recreativas al aire libre	1	2	3	4	5
El parque no tiene actividades divertidas para mí o mi familia	1	2	3	4	5
No tengo a nadie con quien realizar las actividades	1	2	3	4	5
Mi familia o yo tenemos problemas de salud	1	2	3	4	5
Tengo miedo de animales salvajes y parásitos al aire libre	1	2	3	4	5
Tengo miedo del delito percibido en el parque	1	2	3	4	5
Las instalaciones no están en buenas condiciones	1	2	3	4	5
Los empleados del parque no son amigables	1	2	3	4	5
Falta información sobre las oportunidades recreativas	1	2	3	4	5
La señalización y la información no están en mi idioma	1	2	3	4	5
No apruebo las actividades que otros visitantes hacen	1	2	3	4	5
Me siento incómodo debido a mi género (masculino o feminino)	1	2	3	4	5
Me siento incómodo debido a mi raza o etnia	1	2	3	4	5

Por favor vea la página siguiente.

Obstáculo	No es razón		Mas o menos es una razón		Es la razón principal!
Me siento incómodo alrededor de la gente de otros grupos raciales	1	2	3	4	5
La gente de mi grupo racial/étnico a veces experimenta conflictos con otros visitantes del parque	1	2	3	4	5
La gente de mi grupo racial/étnico no sienten cómodas en Ft. Yargo	1	2	3	4	5
Prefiero recrearme en otro lugar (dónde?): _____	1	2	3	4	5

7. ¿Qué es la PROBABILIDAD que sus amigos o familia harían lo siguiente?

	Muy poco Probable	Poco Probable	Quizas sea Probable	Probable	Muy Probable
Pasar un día en un parque estatal	1	2	3	4	5
Pagar para entrar en un parque estatal	1	2	3	4	5
Pagar para participar en actividades en un parque estatal	1	2	3	4	5
Participar en actividades ACTIVAS al aire libre (correr, biking, etc.)	1	2	3	4	5
Participar en actividades SOCIALES al aire libre (picnic, comida al aire libre, etc.)	1	2	3	4	5
Participar en actividades de NATURALEZA al aire libre (caminata, pesca, acampar, etc.)	1	2	3	4	5
Disfrutar tiempo al aire libre cerca de la naturaleza	1	2	3	4	5
Animarme a estar al aire libre en la naturaleza	1	2	3	4	5
Apreciar actividades recreativas en Fort Yargo	1	2	3	4	5

8. ¿Cuál es su sexo? ☐ Femenino ☐ Masculino

9. ¿Cuál es su edad? _____ años

10. ¿Cuál es su raza o grupo étnico? **(Marque TODAS las que aplican.)**

☐ Blanco o Caucásico ☐ Negro o Afro Americano ☐ Indígena Americana

☐ Hispanic/Latino (indique origen): _____ ☐ Asiático (indique origen): _____ ☐ Otro: _____

11. ¿Qué idioma se habla principalmente en su hogar? (**Marque UNA SOLA respuesta.**)

☐ Más en Inglés ☐ Inglés e Español (mezlca) ☐ Más en Español ☐ Otra: _____

12. ¿Cuál es el nivel educativo más alto que ha completado? **(Marque UNA SOLA respuesta.)**

☐ Educación secundaria incompleta ☐ Graduado de escuela secundaria ☐ Graduado de una universidad

13. ¿Cuántas personas viven actualmente en su hogar? _____ personas

14. Por favor indique el rango de los ingresos totales del año pasado para su hogar antes de la deducción de impuestos. (**Marque UNA SOLA respuesta.)**

☐ $25,000 o menos ☐ $25,001 a $50,000 ☐ $50,001 a $75,000

☐ $75,001 a $100,000 ☐ $100,001 o más ☐ Prefiero no contestar

15. ¿Qué podrían hacer los administradores del parque para animarle a acampar y/o usar los senderos en Fort Yargo más frecuentemente? **(Por favor escriba sus sugerencias por debajo):**

FY3S

Encuesta para los Visitantes de los Parques Estatales de Georgia

El Departamento de Recursos Naturales de Georgia (GA DNR) y la Universidad de Georgia están llevando a cabo un estudio sobre los visitantes a los parques estatales. Sus respuestas ayudarán GA DNR a manejar los parques de modo que usted pueda disfrutarlos más. Por favor tome unos minutos para completar esta encuesta. La participación es voluntaria y sus respuestas son anónimas y confidenciales.

1. Incluyendo hoy ¿cuántas veces ha visitado a Fort Yargo usted en los últimos 12 meses? _____ visitas

2. ¿En qué año hizo usted su primero visita a Fort Yargo? Año: _____

3. Incluyendo usted, ¿cuántas personas viajaron con usted a Fort Yargo hoy? _____ personas

   3a. ¿Cuántos de aquellos viajando con usted hoy tienen menos de 18 años?_____ personas

4. ¿Cuántas millas viajó usted para visitar a Fort Yargo hoy? _____ millas

5. ¿Cuál era su **ACTIVIDAD PRINCIPAL** durante su visita hoy? **(Escriba esta actividad por debajo.)**

_____

6. La financión de los parques estatales sigue siendo un reto enorme. ¿Estaría dispuesto a pagar más por la cuota de entrada diaria si usted supiera que el dinero iba directamente a Fort Yargo?

   ☐ No, yo no pagaría más

   ☐ Sí, yo pagaría $ _____ más por una cuota de entrada a Ft. Yargo **(Escriba en el espacio.)**

7. ¿Ha comprado un PASE ANUAL para los parques estatales de Georgia en los últimos 12 meses?

   ☐ Sí ☐ No

8. Si la cuota diaria de entrada en Fort Yargo fuera $_____ por vehículo, ¿cómo cambiaría su visitación a Fort Yargo? **(Marque UNA caja.)**

   ☐ Mis visitas en un año típico sería más o menos igual.

   ☐ Aumentaría mis visitas a _____ visitas al año. **(Escriba número en el espacio.)**

   ☐ Reduciría mis visitas a _____ visitas al año. **(Escriba número en el espacio.)**

9. ¿Cómo PREFIERE pagar usted por visitar un parque estatal y participar en actividades recreativas en al aire libre? (**Marque UNA caja.)**

   ☐ Una cuota de estacionamiento por cada vehículo

   ☐ Una cuota de entrada por cada persona

   ☐ Una cuota de actividad recreativa por cada persona (No hay cuota de entrada, pero paga una cierta cantidad cada vez usa una instalación diferente del parque)

Por favor vea la página siguiente.

10. Por favor indique si usted NO ESTA o ESTÁ DE ACUERDO con las frases siguientes sobre su opinión de Fort Yargo State Park. (**Marque UNA SOLA respuesta para cada ítem.)**

	Totalmente en Desacuerdo	En Desacuerdo	Neutral	De Acuerdo	Totalmente de Acuerdo
Fort Yargo es muy especial para mí.	1	2	3	4	5
Estoy más feliz visitando a Fort Yargo que visitando cualquier otra área.	1	2	3	4	5
Fort Yargo es el mejor lugar para mi recreación.	1	2	3	4	5
Hay otros sitios cercanos donde puedo hacer las mismas actividades que hago en Ft. Yargo	1	2	3	4	5
Recreación en Fort Yargo es más importante para mí que recreación en cualquier otro lugar.	1	2	3	4	5
Fort Yargo más o menos parece como cualquier otro parque estatal o local.	1	2	3	4	5

11. ¿Cuál es su sexo? ☐ Femenino ☐ Masculino

12. ¿Cuál es su edad? _____ años

13. ¿Cuál es su raza o grupo étnico? **(Marque TODAS las que aplican.)**

☐ Blanco o Caucásico ☐ Negro o Afro Americano ☐ Indígena Americana

☐ Hispanic/Latino (indique origen): _____ ☐ Asiático (indique origen): _____ ☐ Otro: _____

14. ¿Qué idioma se habla principalmente en su hogar? (**Marque UNA SOLA respuesta.**)

☐ Más en Inglés ☐ Inglés e Español (mezlca) ☐ Más en Español ☐ Otra: _____

15. ¿Cuál es el nivel educativo más alto que ha completado? **(Marque UNA SOLA respuesta.)**

☐ Educación secundaria incompleta ☐ Escuela secundaria ☐ Una universidad o escuela técnica

16. ¿Cuántas personas viven actualmente en su hogar? _____ personas

17. Por favor indique el rango de los ingresos totales del año pasado para su hogar antes de la deducción de impuestos. (**Marque UNA SOLA respuesta.)**

☐ $25,000 o menos ☐ $25,001 a $50,000 ☐ $50,001 a $75,000

☐ $75,001 a $100,000 ☐ $100,001 o más ☐ Prefiero no contestar

18. Por favor proporcione el código postal de su dirección permanente. _____

Si tienes otras sugerencias para el parque, por favor escríbalos en el espacio siguiente:

¡Muchas gracias por su tiempo!

FY4S

Encuesta para los Visitantes de los Parques Estatales de Georgia

El Departamento de Recursos Naturales de Georgia (GA DNR) y la Universidad de Georgia están llevando a cabo un estudio sobre los visitantes a los parques estatales. Sus respuestas ayudarán GA DNR a manejar los parques de modo que usted pueda disfrutarlos más. Por favor tome unos minutos para completar esta encuesta. La participación es voluntaria y sus respuestas son anónimas y confidenciales.

1. Incluyendo hoy, ¿cuántas veces ha visitado a Fort Yargo usted en los últimos 12 meses? _____ visitas

2. Incluyendo usted, ¿cuántas personas viajaron con usted a Fort Yargo hoy? _____ personas

3 ¿Cuántos días durante una SEMANA TÍPICA participa usted en ACTIVIDADES FÍSICAS (incluso caminando) que causan un aumento de respiración o latidos del corazón por lo menos 30 minutos a la vez?

_____ días por semana **(Escriba un número en el espacio.)**

4 Por favor díganos con qué frecuencia usted usa las siguientes áreas para realizar sus ACTIVIDADES FÍSICAS. (**Marque UNA SOLA respuesta para cada área.)**

	Nunca	Raramente	En Ocasiones	Con Regularidad	Muy a Menudo
Fort Yargo State Park	1	2	3	4	5
Otros parques estatales	1	2	3	4	5
Parques en su vecindario	1	2	3	4	5
Aceras/calles en su vecindad	1	2	3	4	5
Gimnasio/centros recreativos	1	2	3	4	5
Hogar/patio trasero	1	2	3	4	5
Trabajo	1	2	3	4	5

5. ¿Cuánto tiempo TOTAL pasa usted en Fort Yargo durante su visita hoy?

_____ horas y/o _____ minutes **(Escriba un número en los espacios.)**

5a. ¿Cuánto de este tiempo pasó usted haciendo **actividades físicas MODERADAS** que causan un aumento pequeño de respiración o latidos del corazón (como caminar rápido o natación) por lo menos 10 minutos a la vez?

_____ horas y/o _____ minutes **(Escriba un número en los espacios.)**

5b ¿Cuánto de este tiempo pasó usted haciendo **actividades físicas VIGOROSAS** que causan un aumento grande de respiración o latidos del corazón (como el correr o montar la bicicleta rápido) por lo menos 10 minutos a la vez?

_____ horas y/o _____ minutes **(Escriba un número en los espacios.)**

6. **Marque TODAS** las áreas usted usa para actividades físicas durante su visita(s) a Fort Yargo.

☐ Caminos para bicicletas ☐ Campos abiertos para deportes ☐ Áreas de picnic/zona de juegos

☐ Áreas de bote ☐ Canchas pavimentadas ☐ Áreas de natación

☐ Senderos sin pavimentar ☐ Senderos pavimentados ☐ Otra (explique): _____

Por favor vea la página siguiente.

7. Por favor indique el nivel de IMPORTANCIA de los factores siguientes para promover su ACTIVIDAD FÍSICA en Fort Yargo? (**Marque UNA SOLA respuesta para cada artículo.**)

	Sin importancia	Poca importancia	Mas o menos importante	Algo importante	Muy importante
Paisaje natural	1	2	3	4	5
Áreas desarrolladas e instalaciones	1	2	3	4	5
Una variedad de actividades	1	2	3	4	5
Espacios libre y naturales para jugar	1	2	3	4	5
Oportunidades recreaciónal para todos	1	2	3	4	5
Al ver otros visitantes activos	1	2	3	4	5
Estar con amigos y familia activos	1	2	3	4	5
Un ambiente seguro	1	2	3	4	5

8. ¿Cuál es su sexo? ☐ Femenino ☐ Masculino

9. ¿Cuál es su edad? _____ años

10. ¿Cuál es su raza o grupo étnico? **(Marque TODAS las que aplican.)**

☐ Blanco o Caucásico ☐ Negro o Afro Americano ☐ Indígena Americana

☐ Hispanic/Latino (indique origen): _____ ☐ Asiático (indique origen): _____ ☐ Otro: _____

11. ¿Qué idioma se habla principalmente en su hogar? (**Marque UNA SOLA respuesta.**)

☐ Más en Inglés ☐ Inglés e Español (mezlca) ☐ Más en Español ☐ Otra: _____

12. ¿Cuál es el nivel educativo más alto que ha completado? **(Marque UNA SOLA respuesta.)**

☐ Educación secundaria incompleta ☐ Graduado de escuela secundaria ☐ Graduado de una universidad

13. ¿Cuántas personas viven actualmente en su hogar? _____ personas

14. Por favor indique el rango de los ingresos totales del año pasado para su hogar antes de la deducción de impuestos. (**Marque UNA SOLA respuesta.)**

☐ $25,000 o menos ☐ $25,001 a $50,000 ☐ $50,001 a $75,000

☐ $75,001 a $100,000 ☐ $100,001 o más ☐ Prefiero no contestar

15. Por favor proporcione el código postal de su dirección permanente. _____

16. ¿Qué podría hacer los administradores para animarle a participar en más actividades físicas al aire libre en Fort Yargo? **(Por favor escriba sus sugerencias en el espacio siguiente.)**

FYkidsS

Encuesta para los Visitantes de los Parques Estatales de Georgia

El Departamento de Recursos Naturales de Georgia (GA DNR) y la Universidad de Georgia están llevando a cabo un estudio sobre los visitantes a los parques estatales. Sus respuestas ayudarán GA DNR a manejar los parques de modo que usted pueda disfrutarlos más. Por favor tome unos minutos para completar esta encuesta. La participación es voluntaria y sus respuestas son anónimas y confidenciales.

La recreación de niños al aire libre. *Para las siguientes preguntas,* ***piense en el menor (niño o niña)*** *de su grupo hoy con menos de 18 años que* ***cumplió años más recientemente.***

1. ¿Cómo está usted relacionado a este(a) niño(a)?

☐ Padre ☐ Tío o Tía ☐ Primo

☐ Abuelo ☐ Hermano ☐ Otro (explique): _____

2. Por favor **marque TODAS** las actividades en las que este niño(a) participó durante su visita hoy.

Base de tierra:	**Base de agua:**	**Otra:**
☐ Ciclismo	☐ Actividades en la playa	☐ Acampar
☐ Caminata	☐ Canoa/kayak	☐ Relajación/no hay actividad principal
☐ Correr/trotar	☐ Pescar	☐ Visitar al fuerte histórico
☐ Mini golf	☐ Bote a motor	☐ Exhibición del centro de visitantes
☐ Picnic	☐ Natación	☐ Observación de fauna/fotografía
☐ Zona de juegos		☐ Otra (**por favor detalle**): _____
☐ Deportes de equipo		

3. Por favor indique si usted NO ESTA o ESTÁ DE ACUERDO con las declaraciones siguientes acerca de las visitas de este niño(a) a Fort Yargo. (**Marque UNA respuesta para cada frase.**)

Las visitas a Fort Yargo ayuda a este niño(a) a:	**Totalmente en Desacuerdo**	**En Desacuerdo**	**Neutral**	**De Acuerdo**	**Totalmente de Acuerdo**
Disfrutar tiempo con familia y amigos	1	2	3	4	5
Desarrollar habilidades sociales	1	2	3	4	5
Aumentar la actividad física	1	2	3	4	5
Mejorar su salud física	1	2	3	4	5
Mejorar su salud mental	1	2	3	4	5
Intentar actividades nuevas	1	2	3	4	5
Descubrir y aprender sobre la naturaleza	1	2	3	4	5
Apreciar y respetar la naturaleza	1	2	3	4	5
Otra (describe): _____	1	2	3	4	5

Por favor vea la página siguiente.

4. ¿Cuántos días durante una SEMANA TÍPICA participa este niño(a) en ACTIVIDADES FÍSICAS (incluso caminando) que causan un aumento de respiración o latidos del corazón por lo menos 60 minutos (1 hora) a la vez?

_____ días por semana **(Escriba un número en el espacio.)**

5. ¿Cuánto tiempo TOTAL pasa este niño(a) en Fort Yargo durante su visita hoy?

_____ horas y/o _____ minutos **(Escriba un número en los espacios.)**

5a. ¿Cuánto de este tiempo pasó este niño(a) haciendo **actividades físicas MODERADAS** que causan un aumento pequeño de respiración o latidos del corazón (como caminar rápido o natación) por lo menos 10 minutos a la vez?

_____ horas y/o _____ minutos **(Escriba un número en los espacios.)**

5b. ¿Cuánto de este tiempo pasó este niño(a) haciendo **actividades físicas VIGOROSAS** que causan un aumento grande de respiración o latidos del corazón (como el correr o montar la bicicleta rápido) por lo menos 10 minutos a la vez?

_____ horas y/o _____ minutos **(Escriba un número en los espacios.)**

6. Al mejor de su conocimiento, ¿con qué frecuencia visitará este niño(a) a Fort Yargo este verano (mayo-septiembre)? **(Por favor marque UNA SOLA respuesta.)**

☐ Más que una vez por semana ☐ Aproximadamente una vez a la semana

☐ Aproximadamente una vez al mes ☐ Aproximadamente una vez este verano

7. ¿Cuántos años tiene este niño(a)? _____ años

8. ¿Cuál es el sexo de este niño(a)? ☐ Feminino ☐ Masculino

9. ¿Cuál es la raza o grupo étnico de este niño(a)? **(Marque TODAS las que aplican.)**

☐ Blanco o Caucásico ☐ Negro o Afro Americano ☐ Indígena Americana

☐ Hispanic/Latino (indique origen): _____ ☐ Asiático (indique origen): _____ ☐ Otro: _____

10. ¿Qué podría hacer los administradores para animar este niño(a) a participar en más actividades físicas al aire libre en Fort Yargo? **(Por favor escriba sus sugerencias en el espacio siguiente.)**

¡Muchas gracias por su tiempo!

APPENDIX G

SOPARC COVER SHEET AND DATA COLLECTION FORM

SOPARC Cover Sheet DATES _____ (DAYS _____) PARK _____ OBSERVERS ___ ___

(DATE)	OBS	TIME	TOTAL #	SEX		AGE GROUP				ETHNICITY				ACTIVITY		
				F	M	Child	Teen	Adult	Old	W	B	L	O	S	M	V

Possible Activity Types:

Fitness
aerobics/exercises
jogging/running
hiking/walking

Sports
baseball
basketball
cheer leading
dance
football
horseshoes
soccer
tennis
volleyball
other

Active Games
climbing/sliding
jumping (rope, hop scotch)
manipulatives/racquet
tag/chasing games

Sedentary
cards/board games
lying down, sitting, or standing
reading
picnic (food involved)
fishing

Data Codes:

Female=1, Male=2
Child=1, Teen=2, Adult=3, Old=4
White=1, Black=2, Latino=3, Other=4
Sedentary=1, Moderate=2, Vigorous=3

SOPARC Observation Data Sheet

DATE __________ PARK ______ AREA ______________ WEATHER __________ BEGIN ______ END ______ OBS _____

PERSON	GENDER		AGE GROUP				ETHNICITY				ACTIVITY			ACTIVITY TYPE
#	F	M	Child	Teen	Adult	Old	W	B	L	O	S	M	V	

SOPARC Cover Sheet DATES _____ (DAYS _____) PARK _____ OBSERVERS ___ ___

(DATE)	OBS	TIME	TOTAL #	SEX		AGE GROUP				ETHNICITY				ACTIVITY		
				F	M	Child	Teen	Adult	Old	W	B	L	O	S	M	V

Possible Activity Types:

Fitness
aerobics/exercises
jogging/running
hiking/walking

Sports
baseball
basketball
cheer leading
dance
football
horseshoes
soccer
tennis
volleyball
other

Active Games
climbing/sliding
jumping (rope, hop scotch)
manipulatives/racquet
tag/chasing games

Sedentary
cards/board games
lying down, sitting, or standing
reading
picnic (food involved)
fishing

Data Codes:

Female=1, Male=2
Child=1, Teen=2, Adult=3, Old=4
White=1, Black=2, Latino=3, Other=4
Sedentary=1, Moderate=2, Vigorous=3

SOPARC Observation Data Sheet

DATE __________ PARK ______ AREA ______________ WEATHER __________ BEGIN ______ END ______ OBS _____

PERSON	GENDER		AGE GROUP				ETHNICITY				ACTIVITY			ACTIVITY TYPE
#	F	M	Child	Teen	Adult	Old	W	B	L	O	S	M	V	

APPENDIX H

OFFSITE INTERCEPT SURVEY FORMS

(5 Versions in English, 5 Versions in Spanish)

OFF1

Georgia Outdoor Recreation Survey

The Georgia Dept. of Natural Resources (GA DNR) and the University of Georgia are conducting a study to learn more about outdoor recreation in Georgia. Your responses will help GA DNR to better manage its parks for your use and enjoyment. Please take a few minutes to complete this questionnaire. Your help is voluntary and responses are anonymous and confidential.

1. Please **check ALL** of the following activities you have participated in during the past 12 months.

☐ Beach activities
☐ Biking
☐ Camping
☐ Canoeing/kayaking
☐ Driving off-road vehicles
☐ Fishing
☐ Hiking/walking
☐ Hunting
☐ Jogging/running
☐ Motor boating
☐ Picnic/cookout
☐ Relaxing outdoors
☐ Swimming
☐ Team sports (soccer, basketball, etc.)
☐ Visiting an historic site
☐ Wildlife viewing/photography
☐ Other (**specify**): _____

2. How IMPORTANT are the following factors in your decision to participate in outdoor recreation? (**Circle ONE response for each item.**)

	Not Important	Slightly Important	Moderately Important	Very Important	Extremely Important
Spending time with family	1	2	3	4	5
Spending time with friends	1	2	3	4	5
Meeting new people	1	2	3	4	5
Exercising	1	2	3	4	5
Being physically fit	1	2	3	4	5
Relaxing and resting	1	2	3	4	5
Experiencing solitude, peace and calm	1	2	3	4	5
Doing fun and exciting things	1	2	3	4	5
Being close to nature	1	2	3	4	5
Discovering and learning about nature	1	2	3	4	5

3. How IMPORTANT are the following types of outdoor areas for your outdoor recreation activities? (**Circle ONE response for each item.**)

	Not Important	Slightly Important	Moderately Important	Very Important	Extremely Important
Natural areas (forests, hiking trails, etc.)	1	2	3	4	5
Maintained outdoor areas (landscaped parks, picnic areas, beaches, etc.)	1	2	3	4	5
Developed outdoor areas/facilities (sport	1	2	3	4	5

fields/courts, restrooms, visitor centers, etc.)

4. Have you visited a Georgia State Park in the past 12 months? **(Check ONE box.)**

☐ Yes ☐ Not sure ☐ No **(If NO, please skip to question 5.)**

4a. How many times have you visited ANY Georgia State Park in the past 12 months?

_____ visits **Which state park did you visit most often?** ***Continue to next page.***

4b. What was the **MAIN ACTIVITY** you participated in during your visits to state parks?

Write activity here: _____

5. What features of a park are most important to you when deciding where to visit?
(**Please write answers in the space below).**

_____

_____

6. What is your gender? ☐ Female ☐ Male

7. What is your age? _____ years old

8. What is your race/ethnicity? (**Check ALL that apply.**)

☐ White or Caucasian ☐ Black or African American ☐ American Indian

☐ Hispanic/Latino (specify origin): ☐ Asian (specify origin): ☐ Other (specify origin):

_____ _____ _____

9. What language do you speak at home? (**Check ONE response.**)

☐ Mostly English ☐ English and Spanish ☐ Mostly Spanish ☐ Other: _____

10. What is the highest level of education you have completed? **(Please check ONE response.)**

☐ Some high school ☐ High school or GED ☐ College, tech. school, or other advanced degree

11. How many people currently live in your household? _____ people

12. How many children in your household are under age 18? _____ children

13. Please indicate your total household income range before taxes last year. (**Check ONE box.)**

☐ $25,000 or less ☐ $25,001 to $50,000 ☐ $50,001 to $75,000

☐ $75,001 to $100,000 ☐ $100,001 or more ☐ Refuse to answer

14. Please provide the zip code for your permanent address. _____

Thank you again for your time.

OFF2

Georgia Outdoor Recreation Survey

The Georgia Dept. of Natural Resources (GA DNR) and the University of Georgia are conducting a study to learn more about outdoor recreation in Georgia. Your responses will help GA DNR to better manage its parks for your use and enjoyment. Please take a few minutes to complete this questionnaire. Your help is voluntary and responses are anonymous and confidential.

1. Please tell us HOW OFTEN you use each of the following locations when you are participating in outdoor recreation activities. (**Check ONE box for each item.)**

	Never	Once a Year	Several Times a Year	Once a Month	Several Times a Month	Once a Week	Several Times a Week	Every Day
National Park	☐	☐	☐	☐	☐	☐	☐	☐
Georgia State Park	☐	☐	☐	☐	☐	☐	☐	☐
Neighborhood/local parks	☐	☐	☐	☐	☐	☐	☐	☐
Neighborhood sidewalks/streets	☐	☐	☐	☐	☐	☐	☐	☐
Home/backyard	☐	☐	☐	☐	☐	☐	☐	☐

2. Have you visited a Georgia State Park in the past 12 months? **(Check ONE box.)**

☐ Yes ☐ Not sure ☐ No **(If NO, please skip to question 3.)**

2a. How many times have you visited ANY Georgia State Park in the past 12 months?

_____ visits **Which state park did you visit most often?** _____

2b. What was the **MAIN ACTIVITY** you participated in during your visits to state parks?

Write activity here: _____

3. Please indicate whether each of the following obstacles or barriers is a reason that **KEEPS YOU** from visiting Georgia State Parks as often as you would like. (**Circle ONE response per item.)**

Obstacle	Not a Reason		Minor Reason		Major Reason
The cost is too high	1	2	3	4	5
I do not have enough free time	1	2	3	4	5
State parks are too far from my home	1	2	3	4	5
I have no way to get to a state park	1	2	3	4	5
I am not interested in outdoor recreational activities	1	2	3	4	5
The parks do not provide enough fun things for me or my family to do	1	2	3	4	5
I have no friends or family members to do activities with	1	2	3	4	5
My family or I have health problems	1	2	3	4	5
I am afraid of wild animals and outdoor pests	1	2	3	4	5
I am afraid of perceived crime in state parks	1	2	3	4	5
State park facilities are in poor condition	1	2	3	4	5
State park employees are not friendly	1	2	3	4	5
Lack of information about recreation opportunities	1	2	3	4	5
Information about state parks (e.g. signs, maps) is not in my language	1	2	3	4	5

4. Please indicate whether each of the additional obstacles or barriers is a reason that **KEEPS YOU** from visiting Georgia State Parks as often as you would like. (**Circle ONE response per item.)**

Obstacle	Not a Reason		Minor Reason		Major Reason
I do not approve of activities other state park visitors are doing	1	2	3	4	5
I feel uncomfortable based on my gender	1	2	3	4	5
I feel uncomfortable based on my race/ethnicity	1	2	3	4	5
I feel uncomfortable around people from other racial/ethnic groups	1	2	3	4	5
People from my racial/ethnic group often experience conflicts with other state park visitors	1	2	3	4	5
People from my racial/ethnic group do not feel welcome at state parks	1	2	3	4	5
I prefer to recreate elsewhere (**Where?**): _____	1	2	3	4	5

5. How LIKELY are your friends or family to do the following things? (**Circle ONE number per item.)**

	Very Unlikely	Unlikely	Neither	Likely	Very Likely
Participate in ACTIVE outdoor activities (like running)	1	2	3	4	5
Participate in PASSIVE outdoor activities (like relaxing)	1	2	3	4	5
Participate in SOCIAL outdoor activities (like a picnic)	1	2	3	4	5
Participate in outdoor NATURE activities (like hiking)	1	2	3	4	5
Spend a day at a Georgia state park	1	2	3	4	5

6. What is your gender? ☐ Female ☐ Male

7. What is your age? _____ years old

8. What is your race/ethnicity? (**Check ALL that apply.**)

☐ White or Caucasian ☐ Black or African American ☐ American Indian

☐ Hispanic/Latino (specify origin): _____ ☐ Asian (specify origin): _____ ☐ Other (specify origin): _____

9. What language do you speak at home? (**Check ONE response.**)

☐ Mostly English ☐ English and Spanish ☐ Mostly Spanish ☐ Other: _____

10. What is the highest level of education you have completed? **(Please check ONE response.)**

☐ Some high school ☐ High school or GED ☐ College, tech. school, or other advanced degree

11. How many people currently live in your household? _____ people

12. How many children in your household are under age 18? _____ children

13. Please indicate your total household income range before taxes last year. (**Check ONE box.)**

☐ $25,000 or less ☐ $25,001 to $50,000 ☐ $50,001 to $75,000

☐ $75,001 to $100,000 ☐ $100,001 or more ☐ Refuse to answer

14. Please provide the zip code for your permanent address. _____

Thank you again for your time.

OFF3

Georgia Outdoor Recreation Survey

The Georgia Dept. of Natural Resources (GA DNR) and the University of Georgia are conducting a study to learn more about outdoor recreation in Georgia. Your responses will help GA DNR to better manage its parks for your use and enjoyment. Please take a few minutes to complete this questionnaire. Your help is voluntary and responses are anonymous and confidential.

1. Please tell us HOW OFTEN you use each of the following locations when you are participating in outdoor recreation activities. **(Check ONE box for each item.)**

	Never	Once a Year	Several Times a Year	Once a Month	Several Times a Month	Once a Week	Several Times a Week	Every Day
National Park	☐	☐	☐	☐	☐	☐	☐	☐
Georgia State Park	☐	☐	☐	☐	☐	☐	☐	☐
Neighborhood/local parks	☐	☐	☐	☐	☐	☐	☐	☐
Neighborhood sidewalks/streets	☐	☐	☐	☐	☐	☐	☐	☐
Home/backyard	☐	☐	☐	☐	☐	☐	☐	☐
Other: _____	☐	☐	☐	☐	☐	☐	☐	☐

2. Have you visited a Georgia State Park in the past 12 months? **(Check ONE box.)**

☐ Yes ☐ Not sure ☐ No **(If NO, please skip to question 3.)**

2a. How many times have you visited ANY Georgia State Park in the past 12 months?

_____ visits **Which state park did you visit most often?** _____

2b. What was the **MAIN ACTIVITY** you participated in during your visits to state parks?

Write activity here: _____

3. Funding Georgia state parks continues to be a major challenge. Would you be willing to pay more than the current $5 daily entrance fee if you knew the money was going directly to state parks?

☐ No, I would not pay more

☐ Yes, I would pay $ _____ more for a daily entrance fee to state parks **(Write number in blank.)**

4. If the daily entrance fee for getting in to Georgia State Parks was $_____ per vehicle, how would your visitation to Georgia State Parks change? **(Check ONE box.)**

☐ My visits in a typical year would DECREASE.

☐ My visits in a typical year would STAY about THE SAME.

☐ My visits in a typical year would INCREASE.

☐ I am NOT INTERESTED in visiting a Georgia State Park, regardless of price

Continue to next page.

5. Please indicate whether you DISAGREE or AGREE with the following statements concerning your opinion of GEORGIA STATE PARKS. (**Circle ONE response for each statement.**)

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
For me, state parks are special places.	1	2	3	4	5
I'm happier visiting state parks than other parks in north Georgia.	1	2	3	4	5
State parks are the best place for me to recreate.	1	2	3	4	5
There are other places nearby where I can easily do the things I do at state parks.	1	2	3	4	5
Recreation at state parks is more important to me than recreation at other places.	1	2	3	4	5
State parks are pretty much like any other local park.	1	2	3	4	5

6. What features of a park are most important to you when deciding where to visit?
(**Please write answers in the space below).**

_____

7. What is your gender? ☐ Female ☐ Male

8. What is your age? _____ years old

9. What is your race/ethnicity? (**Check ALL that apply.**)

☐ White or Caucasian ☐ Black or African American ☐ American Indian

☐ Hispanic/Latino (specify origin): _____ ☐ Asian (specify origin): _____ ☐ Other (specify origin): _____

10. What language do you speak at home? (**Check ONE response.**)

☐ Mostly English ☐ English and Spanish ☐ Mostly Spanish ☐ Other: _____

11. What is the highest level of education you have completed? **(Please check ONE response.)**

☐ Some high school ☐ High school or GED ☐ College, tech. school, or other advanced degree

12. How many people currently live in your household? _____ people

13. How many children in your household are under age 18? _____ children

14. Please indicate your total household income range before taxes last year. (**Check ONE box.)**

☐ $25,000 or less ☐ $25,001 to $50,000 ☐ $50,001 to $75,000

☐ $75,001 to $100,000 ☐ $100,001 or more ☐ Refuse to answer

15. Please provide the zip code for your permanent address. _____

Thank you again for your time.

OFF4

Georgia Outdoor Recreation Survey

The Georgia Dept. of Natural Resources (GA DNR) and the University of Georgia are conducting a study to learn more about outdoor recreation in Georgia. Your responses will help GA DNR to better manage its parks for your use and enjoyment. Please take a few minutes to complete this questionnaire. Your help is voluntary and responses are anonymous and confidential.

1. Please **check ALL** of the following activities you have participated in during the past 12 months.

☐ Beach activities
☐ Biking
☐ Camping
☐ Canoeing/kayaking
☐ Driving off-road vehicles
☐ Fishing
☐ Hiking/walking
☐ Hunting
☐ Jogging/running
☐ Motor boating
☐ Picnic/cookout
☐ Relaxing outdoors
☐ Swimming
☐ Team sports (soccer, basketball, etc.)
☐ Visiting an historic site
☐ Wildlife viewing/photography
☐ Other (**specify**): _____

2. How IMPORTANT are the following factors in your decision to participate in outdoor recreation? (**Circle ONE response for each item.**)

	Not Important	Slightly Important	Moderately Important	Very Important	Extremely Important
Spending time with family	1	2	3	4	5
Spending time with friends	1	2	3	4	5
Meeting new people	1	2	3	4	5
Exercising	1	2	3	4	5
Being physically fit	1	2	3	4	5
Relaxing and resting	1	2	3	4	5
Experiencing solitude, peace and calm	1	2	3	4	5
Doing fun and exciting things	1	2	3	4	5
Being close to nature	1	2	3	4	5
Discovering and learning about nature	1	2	3	4	5

3. Have you visited a Georgia State Park in the past 12 months? **(Check ONE box.)**

☐ Yes ☐ Not sure ☐ No **(If NO, please skip to question 4.)**

3a. How many times have you visited ANY Georgia State Park in the past 12 months?

_____ visits **Which state park did you visit most often?** _____

3b. What was the **MAIN ACTIVITY** you participated in during your visits to state parks?

Write activity here: _____

Continue to next page.

4. How many days during A TYPICAL WEEK do you participate in PHYSICAL ACTIVITIES (including walking) that cause an increase in breathing or heart rate for at least 30 minutes at a time?

_____ days per week **(Please write number in blank.)**

5. Please tell us HOW OFTEN you use each of the following locations when you participate in outdoor PHYSICAL ACTIVITIES. (**Circle ONE response for each item.)**

	Never	Rarely	Occasionally	Often	Very Often
A Georgia state park	1	2	3	4	5
A neighborhood park	1	2	3	4	5
Neighborhood sidewalks/streets	1	2	3	4	5
Gym/recreation center	1	2	3	4	5
Home/backyard	1	2	3	4	5
Work	1	2	3	4	5

6. What features of a park are most important to you when deciding where to participate in physical activities? (**Please write answers in the space below).**

_____

7. What is your gender? ☐ Female ☐ Male

8. What is your age? _____ years old

9. What is your race/ethnicity? (**Check ALL that apply.**)

☐ White or Caucasian ☐ Black or African American ☐ American Indian

☐ Hispanic/Latino (specify origin): ☐ Asian (specify origin): ☐ Other (specify origin):

_____ _____ _____

10. What language do you speak at home? (**Check ONE response.**)

☐ Mostly English ☐ English and Spanish ☐ Mostly Spanish ☐ Other: _____

11. What is the highest level of education you have completed? **(Please check ONE response.)**

☐ Some high school ☐ High school or GED ☐ College, tech. school, or other advanced degree

12. How many people currently live in your household? _____ people

13. How many children in your household are under age 18? _____ children

14. Please indicate your total household income range before taxes last year. (**Check ONE box.)**

☐ $25,000 or less ☐ $25,001 to $50,000 ☐ $50,001 to $75,000

☐ $75,001 to $100,000 ☐ $100,001 or more ☐ Refuse to answer

15. Please provide the zip code for your permanent address. _____

Thank you again for your time.

OFFK

Georgia Outdoor Recreation Survey

The Georgia Dept. of Natural Resources (GA DNR) and the University of Georgia are conducting a study to learn more about outdoor recreation in Georgia. Your responses will help GA DNR to better manage its parks for your use and enjoyment. Please take a few minutes to complete this questionnaire. Your help is voluntary and responses are anonymous and confidential.

Children's Outdoor Recreation. *When answering the following questions, think of* ***the ONE CHILD (under age 18) in your family WHO HAD THE LAST BIRTHDAY****.*

1. What is your relationship to this child?

☐ Parent ☐ Aunt/Uncle ☐ Cousin

☐ Grandparent ☐ Sibling ☐ Other (specify): _____

2. Please **check ALL** the activities this child has participated in during the past 12 months.

☐ Beach activities
☐ Biking
☐ Camping
☐ Canoeing/kayaking
☐ Driving off-road vehicles or motorcycles
☐ Fishing
☐ Hiking/walking
☐ Hunting
☐ Jogging/running
☐ Motor boating or jet skiing
☐ Picnic/cookout
☐ Playing on a playground
☐ Relaxing outdoors
☐ Swimming
☐ Team sports (soccer, basketball, etc.)
☐ Using electronic devices or listening to music outdoors
☐ Visiting an historic site
☐ Wildlife viewing/photography
☐ Other (**specify**): _____

3. How many days during a TYPICAL WEEK does this child participate in PHYSICAL ACTIVITIES (including walking) that cause an increase in breathing or heart rate for at least 60 minutes at a time?

_____ days per week **(Please write number in blank.)**

4. Please tell us HOW OFTEN this child uses each of the following locations when he/she participates in outdoor PHYSICAL ACTIVITIES. (**Circle ONE response for each item.)**

	Never	Rarely	Occasionally	Often	Very Often
A Georgia state park	1	2	3	4	5
A neighborhood park	1	2	3	4	5
Neighborhood sidewalks/streets	1	2	3	4	5
Gym/recreation center	1	2	3	4	5
Home/backyard	1	2	3	4	5
Work	1	2	3	4	5

Continue to next page.

5. Has this child visited a Georgia State Park in the past 12 months? **(Check ONE box.)**

☐ Yes ☐ Not sure ☐ No **(If NO, please skip to question 6.)**

5a. How many times has this child visited ANY Georgia State Park in the past 12 months?

_____ visits **Which state park did this child visit most often?** _____

5b. What was the **MAIN ACTIVITY** this child participated in during his/her visits to state parks?

Write activity here: _____

6. Please state whether you DISAGREE or AGREE with the following statements concerning this child's outdoor activities. (**Circle ONE response per item.)**

Outdoor activities help this child to:	**Strongly Disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
Enjoy time with family and friends	1	2	3	4	5
Develop social skills	1	2	3	4	5
Increase physical activity	1	2	3	4	5
Improve physical health	1	2	3	4	5
Improve mental health	1	2	3	4	5
Try new things	1	2	3	4	5
Discover and learn about nature	1	2	3	4	5
Appreciate and respect nature	1	2	3	4	5
Other (**specify**): _____	1	2	3	4	5

7. What features of a park are most important to this child when deciding where to visit? (**Please write answers in the space below).**

_____

_____

8. How old is this child? _____ years old

9. What is the gender of this child? ☐ Female ☐ Male

10. What is the race/ethnicity of this child? (**Check ALL that apply.**)

☐ White or Caucasian ☐ Black or African American ☐ American Indian

☐ Hispanic/Latino (specify origin): _____ ☐ Asian (specify origin): _____ ☐ Other (specify origin): _____

Thank you again for your time.

OFF1sp

Encuesta Acerca de Recreación al Aire Libre en Georgia

El Departamento de Recursos Naturales de Georgia (GA DNR) y la Universidad de Georgia están llevando a cabo un estudio para aprender más acerca de recreación al aire libre en Georgia. Sus respuestas ayudarán GA DNR a manejar los parques de modo que usted pueda disfrutarlos más. Por favor tome unos minutos para completar esta encuesta. La participación es voluntaria y sus respuestas son ánonimas y confidenciales.

1. Por favor **marque TODAS** las actividades en las que usted participó durante los últimos 12 meses.

☐ Actividades en la playa	☐ Pescar	☐ Relajación al aire libre
☐ Ciclismo	☐ Caminata	☐ Natación
☐ Acampar	☐ Cazar	☐ Deportes de equipo (fútbol, etc.)
☐ Canoa/kayak	☐ Correr/trotar	☐ Visitar al sitio histórico
☐ Conducir vehículos todo terreno	☐ Bote a motor	☐ Observación de fauna/fotografía
	☐ Picnic	☐ Otra (**describa**): _____

2. Por favor indique el nivel de IMPORTANCIA de los siguientes factores cuando usted está decidiendo si va a participar en recreación al aire libre? (**Marque UNA SOLA respuesta para cada caso.**)

	Sin importancia	Poca importancia	Mas o menos importante	Algo importante	Muy importante
Pasar tiempo con mi familia	1	2	3	4	5
Pasar tiempo con mis amigos	1	2	3	4	5
Conocer gente	1	2	3	4	5
Ejercitarme	1	2	3	4	5
Estar en buena forma física	1	2	3	4	5
Descansar y relajarme	1	2	3	4	5
Disfrutar la soledad, paz y calma	1	2	3	4	5
Participar en actividades divertidas	1	2	3	4	5
Estar cerca de naturaleza	1	2	3	4	5
Aprender sobre y explorar la naturaleza	1	2	3	4	5

3. ¿Qué IMPORTANCIA tienen las áreas siguientes a usted para sus actividades al aire libre?

	Sin importancia	Poca importancia	Mas o menos importante	Algo importante	Muy importante
Áreas naturales (bosques, caminos, etc.)	1	2	3	4	5
Áreas mantenidas al aire libre (playas, abra áreas de picnic, etc.	1	2	3	4	5
Áreas/instalaciones desarrollados (refugios, servicios, centro de visitantes, etc.)	1	2	3	4	5

Por favor vea el otro lado.

4. ¿Ha visitado usted un parque estatal en Georgia durante los últimos 12 meses? (**Marque UNA caja.**)

☐ Sí ☐ No está seguro ☐ No **(Si NO, pase a la pregunta 5.)**

4a. ¿Cuántas veces ha visitado usted a algún parque estatal en Georgia durante los últimos 12 meses?

_____ visitas **¿Qué parque estatal visita usted más a menudo?** _____

4b. ¿Cuál era su **ACTIVIDAD PRINCIPAL** durante sus visitas a los parques estatales?

Escriba aquí la actividad: _____

5. ¿Qué características de un parque son más importante cuando usted está decidiendo dónde quiere visitar?
(Por favor escriba sus sugerencias en el espacio siguiente.)

_____

_____

6. ¿Cuál es su sexo? ☐ Femenino ☐ Masculino

7. ¿Cuál es su edad? _____ años

8. ¿Cuál es su raza o grupo étnico? **(Marque TODAS las que aplican.)**

☐ Blanco o Caucásico ☐ Negro o Afro Americano ☐ Indígena Americana

☐ Hispanic/Latino (indique origen): _____ ☐ Asiático (indique origen): _____ ☐ Otro: _____

9. ¿Qué idioma se habla principalmente en su hogar? (**Marque UNA SOLA respuesta.**)

☐ Más en Inglés ☐ Inglés e Español (mezlca) ☐ Más en Español ☐ Otra: _____

10. ¿Cuál es el nivel educativo más alto que ha completado? **(Marque UNA SOLA respuesta.)**

☐ Educación secundaria incompleta ☐ Graduado de escuela secundaria ☐ Graduado de una universidad

11. ¿Cuántas personas viven actualmente en su hogar? _____ personas

12. ¿Cuántas personas que viven en su hogar tienen menos de 18 años? _____ niños

13. Por favor indique el rango de los ingresos totales del año pasado para su hogar antes de la deducción de impuestos. (**Marque UNA SOLA respuesta.)**

☐ $25,000 o menos ☐ $25,001 a $50,000 ☐ $50,001 a $75,000

☐ $75,001 a $100,000 ☐ $100,001 o más ☐ Prefiero no contestar

14. Por favor proporcione el código postal de su dirección permanente. _____

¡Muchas gracias por su tiempo!

OFF2sp

Encuesta Acerca de Recreación al Aire Libre en Georgia

El Departamento de Recursos Naturales de Georgia (GA DNR) y la Universidad de Georgia están llevando a cabo un estudio para aprender más acerca de recreación al aire libre en Georgia. Sus respuestas ayudarán GA DNR a manejar los parques de modo que usted pueda disfrutarlos más. Por favor tome unos minutos para completar esta encuesta. La participación es voluntaria y sus respuestas son ánonimas y confidenciales.

1. Por favor díganos con qué frecuencia usted usa las siguientes lugares cuando está participando en recreación al aire libre. (**Marque UNA SOLA respuesta para cada lugar.)**

	Nunca	Una vez por año	Varias veces al año	Una vez por mes	Varias veces al mes	Una vez por semana	Varias veces al semana	Todos los días
Parques nacionales	☐	☐	☐	☐	☐	☐	☐	☐
Parques estatales de Georgia	☐	☐	☐	☐	☐	☐	☐	☐
Parques en su vecindario	☐	☐	☐	☐	☐	☐	☐	☐
Aceras/calles en su vecindad	☐	☐	☐	☐	☐	☐	☐	☐
Hogar/patio trasero	☐	☐	☐	☐	☐	☐	☐	☐

2. ¿Ha visitado usted un parque estatal en Georgia durante los últimos 12 meses? (**Marque UNA caja.)**

☐ Sí ☐ No está seguro ☐ No **(Si NO, pase a la pregunta 3.)**

2a. ¿Cuántas veces ha visitado usted a algún parque estatal en Georgia durante los últimos 12 meses?

_____ visitas **¿Qué parque estatal visita usted más a menudo?** _____

2b. ¿Cuál era su **ACTIVIDAD PRINCIPAL** durante sus visitas a los parques estatales ?

Escriba aquí la actividad: _____

3. Indique si cada uno de los obstáculos representa una razón que LE IMPIDE visitar a los parques estatales de Georgia tan frecuentemente como le gustaría. (**Marque UNA SOLA respuesta para cada item.)**

Obstáculo	No es razón		Mas o menos es una razón		Es la razón principal!
El costo es demasiado alto	1	2	3	4	5
No tengo tiempo libre para visitar	1	2	3	4	5
Los parques quedan muy lejos de mi casa	1	2	3	4	5
No tengo transporte para viajar a parques estatales	1	2	3	4	5
No estoy interesado en actividades recreativas al aire libre	1	2	3	4	5
Los parques no tienen actividades divertidas para mí o mi familia	1	2	3	4	5
No tengo a nadie con quien realizar las actividades	1	2	3	4	5
Mi familia o yo tenemos problemas de salud	1	2	3	4	5
Tengo miedo de animales salvajes y parásitos al aire libre	1	2	3	4	5
Tengo miedo del delito percibido en los parques	1	2	3	4	5
Las instalaciones en parques estatales no están en buenas condiciones	1	2	3	4	5
Los empleados de los parques estatales no son amigables	1	2	3	4	5
Falta información sobre las oportunidades recreativas	1	2	3	4	5
La señalización y la información no están en mi idioma	1	2	3	4	5

Por favor vea el otro lado.

4. Indique si cada uno de los obstáculos representa una razón que LE IMPIDE visitar a los parques estatales de Georgia tan frecuentemente como le gustaría. (**Marque UNA SOLA respuesta para cada item.)**

Obstáculo	No es razón		Mas o menos es una razón		Es la razón principal!
No apruebo las actividades que otros visitants hacen	1	2	3	4	5
Me siento incómodo debido a mi género (masculine o feminino)	1	2	3	4	5
Me siento incómodo debido a mi raza o etnia	1	2	3	4	5
Me siento incómodo alrededor de la gente de otros grupos raciales	1	2	3	4	5
La gente de mi grupo racial/étnico a veces experimenta conflictos con otros visitantes a parques estatales	1	2	3	4	5
La gente de mi grupo racial/étnico no sienten cómodas en parques estatal	1	2	3	4	5
Prefiero recrearme en otro lugar (**dónde?**): _____	1	2	3	4	5

5. ¿Qué es la PROBABILIDAD que sus amigos o familia harían lo siguiente?

	Muy poco Probable		Quizas sea Probable		Muy Probable
Participar en actividades ACTIVAS al aire libre (correr, biking, etc.)	1	2	3	4	5
Participar en actividades PASIVAS al aire libre (relajar, etc.)	1	2	3	4	5
Participar en actividades SOCIALES al aire libre (picnic, etc.)	1	2	3	4	5
Participar en actividades de NATURALEZA al aire libre (caminata, etc.)	1	2	3	4	5
Pasar un día en un parque estatal	1	2	3	4	5

6. ¿Cuál es su sexo? ☐ Femenino ☐ Masculino → 7. ¿Cuál es su edad? _____ años

8. ¿Cuál es su raza o grupo étnico? **(Marque TODAS las que aplican.)**

☐ Blanco o Caucásico ☐ Negro o Afro Americano ☐ Indígena Americana

☐ Hispanic/Latino (indique origen): _____ ☐ Asiático (indique origen): _____ ☐ Otro: _____

9. ¿Qué idioma se habla principalmente en su hogar? (**Marque UNA SOLA respuesta.**)

☐ Más en Inglés ☐ Inglés e Español (mezlca) ☐ Más en Español ☐ Otra: _____

10. ¿Cuál es el nivel educativo más alto que ha completado? **(Marque UNA SOLA respuesta.)**

☐ Educación secundaria incompleta ☐ Graduado de escuela secundaria ☐ Graduado de una universidad

11. ¿Cuántas personas viven actualmente en su hogar? _____ personas

12. ¿Cuántas personas que viven en su hogar tienen menos de 18 años? _____ niños

13. Por favor indique el rango de los ingresos totales del año pasado para su hogar antes de la deducción de impuestos. (**Marque UNA SOLA respuesta.)**

☐ $25,000 o menos ☐ $25,001 a $50,000 ☐ $50,001 a $75,000

☐ $75,001 a $100,000 ☐ $100,001 o más ☐ Prefiero no contestar

14. Por favor proporcione el código postal de su dirección permanente. _____

¡Muchas gracias por su tiempo!

OFF3sp

Encuesta Acerca de Recreación al Aire Libre en Georgia

El Departamento de Recursos Naturales de Georgia (GA DNR) y la Universidad de Georgia están llevando a cabo un estudio para aprender más acerca de recreación al aire libre en Georgia. Sus respuestas ayudarán GA DNR a manejar los parques de modo que usted pueda disfrutarlos más. Por favor tome unos minutos para completar esta encuesta. La participación es voluntaria y sus respuestas son ánonimas y confidenciales.

1. Por favor díganos con qué frecuencia usted usa las siguientes lugares cuando está participando en recreación al aire libre. (**Marque UNA SOLA respuesta para cada lugar.)**

	Nunca	Una vez por año	Varias veces al año	Una vez por mes	Varias veces al mes	Una vez por semana	Varias veces al semana	Todos los días
Parques nacionales	☐	☐	☐	☐	☐	☐	☐	☐
Parques estatales de Georgia	☐	☐	☐	☐	☐	☐	☐	☐
Parques en su vecindario	☐	☐	☐	☐	☐	☐	☐	☐
Aceras/calles en su vecindad	☐	☐	☐	☐	☐	☐	☐	☐
Hogar/patio trasero	☐	☐	☐	☐	☐	☐	☐	☐
Otro lugar: _____	☐	☐	☐	☐	☐	☐	☐	☐

2. ¿Ha visitado usted un parque estatal en Georgia durante los últimos 12 meses? (**Marque UNA caja.**)

☐ Sí ☐ No está seguro ☐ No **(Si NO, pase a la pregunta 3.)**

2a. ¿Cuántas veces ha visitado usted a algún parque estatal en Georgia durante los últimos 12 meses?

_____ visitas **¿Qué parque estatal visita usted más a menudo?** _____

2b. ¿Cuál era su **ACTIVIDAD PRINCIPAL** durante sus visitas a los parques estatales?

Escriba aqu la actividad: _____

3. La financión de los parques estatales sigue siendo un reto enorme. ¿Estaría dispuesto a pagar más por la cuota de entrada diaria si usted supiera que el dinero iba directamente a los parques estatales?

☐ No, yo no pagaría más

☐ Sí, yo pagaría $ _____ más por una cuota de entrada a los parques estatales
(Escriba en el espacio.)

4. Si la cuota diaria de entrada en los parques estatales fuera $_____ por vehículo, ¿cómo cambiaría su visitación a parques estatales? **(Marque UNA caja.)**

☐ Mis visitas en un año típico REDUCIRÍA.

☐ Mis visitas en un año típico SERÍA más o menos IGUAL.

☐ Mis visitas en un año típico AUMENTARÍA.

☐ No estoy interesado en visitar a un parque estatal de Georgia, sin importer el precio

Por favor vea el otro lado

5. Por favor indique si usted NO ESTA o ESTÁ DE ACUERDO con las frases siguientes sobre su opinión de los parques estatales de Georgia. (**Marque UNA SOLA respuesta para cada ítem.)**

	Totalmente en Desacuerdo	**En Desacuerdo**	**Neutral**	**De Acuerdo**	**Totalmente de Acuerdo**
Los parques estatales son muy especial para mí.	1	2	3	4	5
Estoy más feliz visitando a los parques estatales que visitando cualquier otra área.	1	2	3	4	5
Los parques estatales son los mejores lugares para mi recreación.	1	2	3	4	5
Hay otros sitios cercanos donde puedo hacer las mismas actividades que hago en parques estatales	1	2	3	4	5
Recreación en parques estatales es más importante para mí que recreación en cualquier otro lugar.	1	2	3	4	5
Los parques estatales más o menos parece como cualquier otro parque local.	1	2	3	4	5

6. ¿Qué características de un parque son más importante cuando usted está decidiendo dónde quiere visitar? **(Por favor escriba sus sugerencias en el espacio siguiente.)**

_____

7. ¿Cuál es su sexo? ☐ Femenino ☐ Masculino

8. ¿Cuál es su edad? _____ años

9. ¿Cuál es su raza o grupo étnico? **(Marque TODAS las que aplican.)**

☐ Blanco o Caucásico ☐ Negro o Afro Americano ☐ Indígena Americana

☐ Hispanic/Latino (indique origen): _____ ☐ Asiático (indique origen): _____ ☐ Otro: _____

10. ¿Qué idioma se habla principalmente en su hogar? (**Marque UNA SOLA respuesta.**)

☐ Más en Inglés ☐ Inglés e Español (mezlca) ☐ Más en Español ☐ Otra: _____

11. ¿Cuál es el nivel educativo más alto que ha completado? **(Marque UNA SOLA respuesta.)**

☐ Educación secundaria incompleta ☐ Graduado de escuela secundaria ☐ Graduado de una universidad

12. ¿Cuántas personas viven actualmente en su hogar? _____ personas

13. ¿Cuántas personas que viven en su hogar tienen menos de 18 años? _____ niños

14. Por favor indique el rango de los ingresos totales del año pasado para su hogar antes de la deducción de impuestos. (**Marque UNA SOLA respuesta.)**

☐ $25,000 o menos ☐ $25,001 a $50,000 ☐ $50,001 a $75,000

☐ $75,001 a $100,000 ☐ $100,001 o más ☐ Prefiero no contestar

15. Por favor proporcione el código postal de su dirección permanente. _____

OFF4sp

Encuesta Acerca de Recreación al Aire Libre en Georgia

El Departamento de Recursos Naturales de Georgia (GA DNR) y la Universidad de Georgia están llevando a cabo un estudio para aprender más acerca de recreación al aire libre en Georgia. Sus respuestas ayudarán GA DNR a manejar los parques de modo que usted pueda disfrutarlos más. Por favor tome unos minutos para completar esta encuesta. La participación es voluntaria y sus respuestas son ánonimas y confidenciales.

1. Por favor **marque TODAS** las actividades en las que usted participó durante los últimos 12 meses.

☐ Actividades en la playa
☐ Ciclismo
☐ Acampar
☐ Canoa/kayak
☐ Conducir vehículos todo terreno
☐ Pescar
☐ Caminata
☐ Cazar
☐ Correr/trotar
☐ Bote a motor
☐ Picnic
☐ Relajación al aire libre
☐ Natación
☐ Deportes de equipo (fútbol, etc.)
☐ Visitar al sitio histórico
☐ Observación de fauna/fotografía
☐ Otra (**describa**): _____

2. Por favor indique el nivel de IMPORTANCIA de los siguientes factores cuando usted está decidiendo si va a participar en recreación al aire libre? (**Marque UNA SOLA respuesta para cada caso.**)

	Sin importancia	Poca importancia	Más o menos importante	Algo importante	Muy importante
Pasar tiempo con mi familia	1	2	3	4	5
Pasar tiempo con mis amigos	1	2	3	4	5
Conocer gente	1	2	3	4	5
Ejercitarme	1	2	3	4	5
Estar en buena forma física	1	2	3	4	5
Descansar y relajarme	1	2	3	4	5
Disfrutar la soledad, paz y calma	1	2	3	4	5
Participar en actividades divertidas	1	2	3	4	5
Estar cerca de naturaleza	1	2	3	4	5
Aprender sobre y explorar la naturaleza	1	2	3	4	5

3. ¿Ha visitado usted un parque estatal en Georgia durante los últimos 12 meses? (**Marque UNA caja.**)

☐ Sí ☐ No está seguro ☐ No **(Si NO, pase a la pregunta 4.)**

3a. ¿Cuántas veces ha visitado usted a algún parque estatal en Georgia durante los últimos 12 meses?

_____ visitas **¿Qué parque estatal visita usted más a menudo?** _____

3b. ¿Cuál era su **ACTIVIDAD PRINCIPAL** durante sus visitas a los parques estatales?

Escriba aquí la actividad: _____

Por favor vea el otro lado.

4 ¿Cuántos días durante una SEMANA TÍPICA participa usted en ACTIVIDADES FÍSICAS (incluso caminando) que causan un aumento de respiración o latidos del corazón por lo menos 30 minutos a la vez?

_____ días por semana **(Escriba un número en el espacio.)**

5. Por favor díganos con qué frecuencia usted usa las siguientes áreas para realizar sus ACTIVIDADES FÍSICAS. (**Marque UNA SOLA respuesta para cada área.)**

	Nunca	Raramente	En Ocasiones	Con Regularidad	Muy a Menudo
Un parque estatal de Georgia	1	2	3	4	5
Un parque en su vecindario	1	2	3	4	5
Aceras/calles en su vecindad	1	2	3	4	5
Gimnasio/centros recreativos	1	2	3	4	5
Hogar/patio trasero	1	2	3	4	5
Trabajo	1	2	3	4	5

6. ¿Qué características de un parque son más importante cuando usted está decidiendo dónde quiere participar en actividades físicas? **(Por favor escriba sus sugerencias en el espacio siguiente.)**

_____

7. ¿Cuál es su sexo? ☐ Femenino ☐ Masculino

8. ¿Cuál es su edad? _____ años

9. ¿Cuál es su raza o grupo étnico? **(Marque TODAS las que aplican.)**

☐ Blanco o Caucásico ☐ Negro o Afro Americano ☐ Indígena Americana

☐ Hispanic/Latino (indique origen): _____ ☐ Asiático (indique origen): _____ ☐ Otro: _____

10. ¿Qué idioma se habla principalmente en su hogar? (**Marque UNA SOLA respuesta.**)

☐ Más en Inglés ☐ Inglés e Español (mezlca) ☐ Más en Español ☐ Otra: _____

11. ¿Cuál es el nivel educativo más alto que ha completado? **(Marque UNA SOLA respuesta.)**

☐ Educación secundaria incompleta ☐ Graduado de escuela secundaria ☐ Graduado de una universidad

12. ¿Cuántas personas viven actualmente en su hogar? _____ personas

13. ¿Cuántas personas que viven en su hogar tienen menos de 18 años? _____ niños

14. Por favor indique el rango de los ingresos totales del año pasado para su hogar antes de la deducción de impuestos. (**Marque UNA SOLA respuesta.)**

☐ $25,000 o menos ☐ $25,001 a $50,000 ☐ $50,001 a $75,000

☐ $75,001 a $100,000 ☐ $100,001 o más ☐ Prefiero no contestar

15. Por favor proporcione el código postal de su dirección permanente. _____

OFFKsp

Encuesta Acerca de Recreación al Aire Libre en Georgia

El Departamento de Recursos Naturales de Georgia (GA DNR) y la Universidad de Georgia están llevando a cabo un estudio para aprender más acerca de recreación al aire libre en Georgia. Sus respuestas ayudarán GA DNR a manejar los parques de modo que usted pueda disfrutarlos más. Por favor tome unos minutos para completar esta encuesta. La participación es voluntaria y sus respuestas son ánonimas y confidenciales

La recreación al aire libre para los niños. *Para contestar las siguientes preguntas,* ***piense en el menor de su familia con menos de 18 años (niño o niña)*** *que* ***cumplió años más recientemente.***

1. ¿Cómo está usted relacionado a este(a) niño(a)?

☐ Padre ☐ Tío o Tía ☐ Primo

☐ Abuelo ☐ Hermano ☐ Otro (explique): _____

2. M**arque TODAS** las actividades en las que este niño(a) participó durante los últimos 12 meses.

☐ Actividades en la playa
☐ Ciclismo
☐ Acampar
☐ Canoa/kayak
☐ Conducir vehículos todo terreno
☐ Pescar
☐ Caminata
☐ Cazar
☐ Correr/trotar
☐ Bote a motor o jet ski
☐ Picnic
☐ Zona de juegos
☐ Relajación al aire libre
☐ Natación
☐ Deportes de equipo (fútbol, etc.)
☐ El uso de dispositivos electrónicos o escuchar música al aire libre
☐ Visitar al sitio histórico
☐ Observación de fauna/fotografía
☐ Otra (**describa**): _____

3. ¿Cuántos días durante una SEMANA TÍPICA participa este niño(a) en ACTIVIDADES FÍSICAS (incluso caminando) que causan un aumento de respiración o latidos del corazón por lo menos 60 minutos (1 hora) a la vez?

_____ días por semana **(Escriba un número en el espacio.)**

4 Por favor díganos con qué frecuencia este niño(a) usa las siguientes áreas para realizar sus ACTIVIDADES FÍSICAS. (**Marque UNA SOLA respuesta para cada área.)**

	Nunca	Raramente	En Ocasiones	Con Regularidad	Muy a Menudo
Un parque estatal de Georgia	1	2	3	4	5
Un parque en su vecindario	1	2	3	4	5
Aceras/calles en su vecindad	1	2	3	4	5
Gimnasio/centros recreativos	1	2	3	4	5
Hogar/patio trasero	1	2	3	4	5
Trabajo	1	2	3	4	5

Por favor vea el otro lado.

5. ¿Ha visitado este niño(a) un parque estatal en Georgia durante los últimos 12 meses? (**Marque UNA caja.**)

☐ Sí ☐ No está seguro ☐ No **(Si NO, pase a la pregunta 6.)**

5a. ¿Cuántas veces ha visitado este niño(a) a algún parque estatal en Georgia durante los últimos 12 meses?

_____ visitas **¿Qué parque estatal visita este niño(a) más a menudo?** _____

5b. ¿Cuál era la **ACTIVIDAD PRINCIPAL** de este niño(a) durante sus visitas a los parques estatales?

Escriba aquí la actividad: _____

6. Por favor indique si usted NO ESTÁ o ESTÁ DE ACUERDO con las declaraciones siguientes acerca de las actividades al aire libre de este niño(a). (**Marque UNA respuesta para cada frase.**)

Las actividades al aire libre ayuda a este niño(a) a:	**Totalmente en Desacuerdo**	**En Desacuerdo**	**Neutral**	**De Acuerdo**	**Totalmente de Acuerdo**
Disfrutar tiempo con familia y amigos	1	2	3	4	5
Desarrollar habilidades sociales	1	2	3	4	5
Aumentar la actividad física	1	2	3	4	5
Mejorar su salud física	1	2	3	4	5
Mejorar su salud mental	1	2	3	4	5
Intentar actividades nuevas	1	2	3	4	5
Descubrir y aprender sobre la naturaleza	1	2	3	4	5
Apreciar y respetar la naturaleza	1	2	3	4	5
Otra (**describa**): _____	1	2	3	4	5

7. ¿Qué características de un parque son más importante cuando este niño(a) está decidiendo dónde quiere visitar? **(Por favor escriba sus sugerencias en el espacio siguiente.)**

_____

_____

8. ¿Cuántos años tiene este niño(a)? _____ años

9. ¿Cuál es el sexo de este niño(a)? ☐ Feminino ☐ Masculino

10. ¿Cuál es la raza o grupo étnico de este niño(a)? **(Marque TODAS las que aplican.)**

☐ Blanco o Caucásico ☐ Negro o Afro Americano ☐ Indígena Americana

☐ Hispanic/Latino (indique origen): _____ ☐ Asiático (indique origen): _____ ☐ Otro: _____

¡Muchas gracias por su tiempo!

APPENDIX I

OVERVIEW OF TOPICS EXAMINED IN *GEORGIA STATE PARKS DIVERSITY PROJECT*

The following overview and basic descriptive data highlight the range of outdoor recreation-related themes examined in the *Georgia State Parks (GASP) Diversity Project*. Although most of these topics were not directly examined in this dissertation, they are discussed in more depth in other reports (e.g., Larson, Whiting, & Green, 2012). Readers should note that, in many cases, means and descriptive data reported here represent the pooled sample (i.e., averages across all three parks). This approach was adopted to illustrate general patterns across sites. However, because the characteristics of participants at different research sites were not uniform, pooled results provide only a coarse representation of the overall sample and should be interpreted with caution.

State Park Visitation Frequency

On-site data yielded information about how often participants had visited one of the three selected Georgia State Parks (i.e., Fort Mountain, Fort Yargo, or Red Top Mountain) within the past 12 months. Across all three parks, the average number of annual visits to the ONE state park in which the visitor was sampled was 4.24 ± 0.24 (Table I.1). About 61% of all visitors surveyed reported visiting one of the three focal parks two or fewer times a year, and 82% of all visitors surveyed said they visited five or fewer times a year. Participants were also asked how often they planned to visit one of the three selected state parks during the summer months of May through September (Table I.2). These data confirmed that participants visited Fort Yargo more often than either of the other parks. Summer visitation frequency across all three parks differed by race/ethnicity. Latino visitors tended to visit state parks more frequently during the summer months than any other racial/ethnic group.

Off-site data yielded information about how often participants had visited ANY Georgia state park within the past 12 months. When asked whether or not they had visited a Georgia state

park in the past year, 56% of participants said "yes" and 9% of the participants said they were "not sure" (n = 1264). Whites (67.7%) and Latinos (56.9%) reported at least one annual state park visit more often than African Americans (46.4%) or Asians (47.6%). Latinos (13.6%) and African Americans (11.2%) were the groups who were most unsure about whether or not they had visited a state park. The average number of reported annual visits to ANY state park was 7.49 ± 1.79. About 46% of all participants reported visiting any Georgia state park two or fewer times a year, and 73% of all participants said they visited state parks five or fewer times a year. When asked which types of places they visited most often to engage in outdoor recreation activities, participants indicated more frequent use of homes or backyards and local parks than either state or national parks (Table I.3).

Distance Traveled to State Parks

Distance traveled to visit state parks varied significantly by state park and survey sites within parks. Excluding extreme distances of 1,000 miles or more (only 0.31% of all visitors surveyed), pooled data for the three focal parks indicated that day users traveled an average of 35.4 ± 0.41 miles one-way to visit state parks (median distance = 20 miles). Campers traveled an average of 96.4 ± 1.09 miles to visit state parks (median distance = 45 miles). In a comparison of distance traveled for visitors to each specific state park, the discrepancy between day users' and overnight users' distance traveled was largest at Fort Mountain (Table I.4). A geospatial analysis of ZIP code data from visitors' point of origin (2 of the 5 surveys contained ZIP code information reported by respondents) confirmed that the selected state parks were popular both locally and regionally (Figure I.1).

Total Time in State Parks

Overall, excluding overnight visitors and visitors who reported spending more than 12 hours during their park visit (23.8% of visitors surveyed), intercept surveys showed that the pooled sample average for time spent in state parks by day users was 5.1 ± 0.15 hours. Pooled sample averages also showed that total time in park differed by race/ethnicity, with white visitors (M = 4.5 ± 0.19 hours) spending significantly less time than individuals in other racial/ethnic groups. On average, Latino visitors spent the longest amount of time in the park during day use visits (M = 5.6 ± 0.13 hours). This pattern was also evident when examining the distribution of visit lengths across racial/ethnic groups (Table I.5).

Exit surveys provided more comprehensive data regarding visitors' total time in park, accounting for all potential activity zones and not just recreation hotspots. According to exit survey data for all visitors across all parks (excluding workers and volunteers, n = 3198), 8.1% of visitors spent at least one night in a state park. Considering only day use visitors, about 18.8% of visitors spent one hour or less in the park and approximately 38.2% of visitors spent four hours or more in the park (M = 3.4 ± 0.05 hours). Day use visitors tended to stay longer at Red Top Mountain (M = 3.5 ± 0.09 hours) than either Fort Yargo (M = 3.3 ± 0.08 hours) or Fort Mountain (M = 3.2 ± 0.17 hours). These mean "time in park" values reported by day users during exit surveys were slightly lower than those obtained via intercept surveys: Red Top Mountain (M = 3.9 ± 0.10 hours), Fort Yargo (M = 3.8 ± 0.09 hours) and Fort Mountain (M = 3.7 ± 0.13 hours).

Group Size in State Parks

Mean group size for state park visitors (excluding groups or special events involving more than 30 people) varied by survey location. In campgrounds, the mean size of a group was

4.5 ± 0.25 people. About 36% of camping groups contained two or fewer people, 80% of camping ground contained five or fewer people, and only 5% of camping group had 10 or more people. In day use areas, the mean size of a group was 7.4 ± 0.20 people. About 13% of day use groups had two or fewer people, 50% of day use groups had five or fewer people, and 20% of day use groups had ten or more people. Group size in day use areas was related to respondents' race/ethnicity. Latinos, Asians, and African Americans tended to recreate in larger groups than white visitors (Table I.6).

Focusing specifically on children within state park visitor groups, the mean number of children per group (excluding large groups or special events with more than 20 children) in campgrounds was 1.5 ± 0.18 children. In day use areas, the mean number of children per group was 3.4 ± 0.13 children. About 17% of day use groups had no children, 49% of day use groups had two or fewer children, and 25% of day use groups had 5 or more children. The mean number of children per group in day use areas was related to respondents' race/ethnicity. Latinos, Asians, and African Americans tended to recreate in groups that contained significantly more children than White visitors (Table I.7).

Physical Activity Observed in State Parks

The physical activity of state park visitors was examined using several methods, and detailed results of these analyses are presented in Chapters 4 and 5. A general overview of observations showed that a majority of state park visitors were active (45% of visitors were sedentary at the time of observation, 51.3% were engaged in moderate activity, and 2.8% were engaged in vigorous activity).

Activity levels varied at observation zones within each park (Figure I.4). Multi-use zone observations revealed significant differences in physical activity levels within and between

demographic groups (Table I.12). Children were the most active group, followed by teens. Males tended to be more active in multi-use zones than females across all age groups. African Americans were the most active across almost all age groups, especially within the children and teenage categories. Trailhead observations also revealed significant differences in physical activity levels among demographic groups (Table I.13). Males were generally more active than females, and much more vigorously active. Adults were more vigorously active than any of the other age groups. Whites tended to be the most active and most vigorously active racial/ethnic group. Compared to the other groups, a larger proportion of African Americans and Hispanic/Latinos were sedentary at trailheads.

Attachment to State Parks

Two measures of place attachment (i.e., place identity and place dependence) were included in the initial 2009 state park pilot study. However, analyses revealed that the "place dependence" dimension was the most salient factor affecting decisions of state park visitors. Therefore, place dependence was the lone construct measured in the larger investigation in 2010 (see Whiting, Larson, & Green, 2011, for more information). The concept of place dependence suggests that individuals or groups are attached to a particular category of places for functional reasons (Kyle, Bricker, Graefe, & Wickham, 2004). Hence, place dependence is often influenced by two factors: the quality of the current place and the relative quality of comparable alternatives. Six items were selected to measure place dependence in the larger 2010 study of state park visitors. Four items addressed the unique aspects of state parks and were averaged to form the "state parks are special construct" ($M = 3.52 \pm 0.02$). Two items compared state parks to other outdoor recreation locations and were averaged to form the "state parks are not special" construct ($M = 3.00 \pm 0.03$).

Place dependence ratings were relatively similar across all parks for both the "state parks are special" and the "state parks are not special" subscales. However, visitors' responses to the place dependence scales differed by race/ethnicity. Latino visitors were generally more dependent on the selected state parks for outdoor recreation than other racial/ethnic groups. White visitors were more likely to rate the selected state parks as similar to other outdoor recreation locations (Figure I.5). Visitors' responses to the "state parks are special" place dependence items also differed by income level. In general, lower-income individuals were significantly more dependent on the selected state parks for outdoor recreation. Outside of state parks, participants' responses to the "state parks are special" and the "state parks are not special" place dependence items differed slightly by race/ethnicity. Similar to the onsite results, Latino participants generally expressed a stronger dependence on state parks for outdoor recreation than Whites, African Americans, or Asians. Conversely, Whites, African Americans, and Asians were more likely than Latinos to rate Georgia state parks as similar to other outdoor recreation locations. Overall place dependence scores show that, relative to other demographic groups, state parks are especially valuable recreation sites for low-income Latino populations.

Onsite Fee Data

When asked how they would prefer to pay to visit a state park and participate in outdoor recreation activities, visitors across all parks (n = 1049) indicated that the current per vehicle parking fee (88.8% selected this option) was better than either a per person activity fee (7.9%) or a per person entrance fee (3.3%). Data showed that only 14.5% of state park visitors surveyed had purchased an annual pass in the past year.

Pooled onsite fee data across all parks (n = 1034) showed visitors were almost evenly split regarding their willingness to pay more to enter focal parks: 52.4% of visitors said they

would not pay more, 47.6% said they would. The mean additional amount that visitors were willing to pay to enter the focal parks (assuming a $0 increase for visitors not willing to pay more) was $2.54 ± 0.13 (Table I.15). Of all visitors, 29.1% were willing to pay more than $3 above the current $5 entrance fee; 16.0% were willing to pay more than $5 above the current fee. When visitors were asked how their visitation to state parks would change at different hypothetical fee values, the likelihood of visits decreasing increased as fees rose (Table I.16).

Offsite fee data (n = 240) showed that most potential park visitors (60.8%) would not pay more to enter a Georgia state park. The mean amount of extra money visitors were willing to pay to enter any Georgia state park (assuming a $0 increase for visitors not willing to pay more) was $2.00 ± 0.24. Of all visitors, 24.4% were willing to pay more than $3 above the current $5 entrance fee; 12.7% were willing to pay more than $5 above the current fee.

Suggestions for Improving State Parks

Open-ended questions in the onsite surveys allowed state park visitors to provide suggestions for improving parks. Most visitors expressed general appreciation for state parks and had only minor suggestions for improvement. The most common suggestion for improving parks and encouraging participation in outdoor recreation activities was better facility maintenance (especially bathrooms). Many visitors also expressed a desire for better interpretation (especially signs and trail markers) and improved programming (particularly organized activities for children). Overnight visitors complained about the current reservation system for campsites and group shelters, and many requested an online system allowing advance reservations for specific sites with one-night minimums. The availability and accessibility of park staff was a common concern for many visitors, many of whom expressed a desire for increased enforcement of park rules and regulations. Improved marketing and advertising was also a frequent suggestion

provided by diverse park users (especially Hispanic/Latinos). Previous research has highlighted the importance of culturally relevant approaches to marketing and information distribution on public lands across the United States (Li, Absher, Graefe, & Hsu, 2008; Roberts, Chavez, Lara, & Sheffield, 2009), and Georgia state parks managers could learn from efforts to serve diverse populations in other regions of the country.

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Li, C., Absher, J. D., Graefe, A. R., & Hsu, Y. (2008). Services for culturally diverse customers in parks and recreation. *Leisure Sciences, 30*, 87-92.

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Table I.1

Mean Annual Visits to Three North Georgia State Parks, Summer 2010

State Park	n	Mean Annual Visits (± 95% CI)	Distribution of Annual Visits
Fort Mountain	1238	3.36 ± 0.28	65.8% 2 visits or less 86.5% 5 visits or less 7.1% visited 10 or more times
Fort Yargo	1321	5.95 ± 0.57	47.8% 2 visits or less 73.4% 5 visits or less 16.9% visited 10 or more times
Red Top Mountain	1533	3.47 ± 0.35	68.4% 2 visits or less 86.4% 5 visits or less 6.9% visited 10 or more times

Table I.2

Visitation Frequency (% of Total Visitors in Each Category) to Three North Georgia State Parks, Summer 2010 (May-September)

State Park	n	About once a summer	About once a month	About once a week	More than once a week
Fort Mountain	587	54.9	28.1	10.6	6.5
Fort Yargo	689	24.2	29.2	31.2	15.4
Red Top Mountain	736	47.3	31.4	13.7	7.6
ALL Parks	2012	41.6	29.7	18.8	9.9

Table I.3

Adult Offsite Intercept Survey Respondents Reported Frequency of Use for Potential Outdoor Recreation Locations in Georgia, Summer 2011 (n = 473)

	Frequency of Use (% of total sample)					
Location	**Never**	**Once a Year**	**Several Times a Year**	**Once a Month OR Several Times a Month**	**Once a Week OR Several Times a Week**	**Every Day**
National Park	33.6	31.3	21.0	8.6	4.5	1.1
Georgia State Park	26.7	24.1	29.7	12.3	5.4	1.9
Neighborhood Park	9.1	9.9	27.1	26.9	22.6	4.4
Neighborhood Sidewalks/Streets	12.0	4.8	15.6	21.7	25.8	20.1
Home/Backyard	3.3	1.1	6.3	8.5	30.0	50.9

Table I.4

Distance Traveled (Miles) to Visit North Georgia State Parks, Summer 2010 (by Park and Survey Location)

	Day Users			Campers		
Park	**n**	**Mean**	**Median**	**n**	**Mean**	**Median**
Fort Mountain	368	49.8 ± 0.97	30	191	117.6 ± 1.70	71
Fort Yargo	572	25.4 ± 0.52	20	119	79.1 ± 2.09	25
Red Top Mountain	538	36.1 ± 0.66	25	145	82.7 ± 1.89	30
TOTAL	1478	35.4 ± 0.41	20	455	96.4 ± 1.09	45

Table I.5

Distribution of Day Use Visitors [a] Total Time in Three North Georgia State Parks, Summer 2010 (% of Total Visitors by Race/Ethnicity)

Race/Ethnicity	n	> 2 hrs.	> 4 hrs.	> 6 hrs.	> 8 hrs.
White	388	89.2	47.7	14.4	2.6
Latino	249	95.2	71.9	33.3	12.4
Black	59	89.8	72.9	37.3	15.3
Asian	29	100.0	65.5	27.6	10.3
TOTAL	758	92.0	59.4	23.5	7.3

[a] Totals represent pooled data for visitors to all three north Georgia state parks.

Table I.6

Mean Group Size for Day Use Visitors[a] to Three North Georgia State Parks, Summer 2010 (by Race/Ethnicity)

Race/Ethnicity	n	Mean Group Size (± 95% CI)	Group Size Distribution
White	1633	5.98 ± 0.22	16.6% of groups had 2 or fewer 60.2% of groups had 5 or fewer 16.6% of groups had 10 or more
Latino	969	9.36 ± 0.40	4.3% of groups had 2 or fewer 32.3% of groups had 5 or fewer 41.1% of groups had 10 or more
Black	256	8.74 ± 0.88	12.3% of groups had 2 or fewer 39.9% of groups had 5 or fewer 34.3% of groups had 10 or more
Asian	126	9.15 ± 1.25	4.5% of groups had 2 or fewer 41.8% of groups had 5 or fewer 41.8% of groups had 10 or more

[a] Totals represent pooled data for visitors to all three north Georgia state parks.

Table I.7

Mean Number of Children Per Group for Day Use Visitors[a] *to Three North Georgia State Parks, Summer 2010 (by Race/Ethnicity)*

Race/Ethnicity	n	Mean Group Size (± 95% CI)	Group Size Distribution
White	1231	2.69 ± 0.16	20.4% of groups had 0 children 58.9% of groups had 2 or fewer children 16.4% of groups had 5 or more children
Latino	739	4.25 ± 0.24	8.5% of groups had 0 children 33.5% of groups had 2 or fewer children 35.2% of groups had 5 or more children
Black	210	4.19 ± 0.53	16.0% of groups had 0 children 39.0% of groups had 2 or fewer children 37.1% of groups had 5 or more children
Asian	104	3.74 ± 0.80	19.0% of groups had 0 children 52.4% of groups had 2 or fewer children 32.4% of groups had 5 or more children

[a] Totals represent pooled data for visitors to all three north Georgia state parks.

Table I.8

Observed Physical Activity Categories (Sedentary, Moderate, or Vigorous) for North Georgia State Park Visitors[a] *(% of Total) in Multi-use Zones, Summer 2010 (by Race/Ethnicity within Age Groups) (n = 16464)*

Racial/Ethnic Group	**Children**			**Teens**		
	Sed	Mod	Vig	Sed	Mod	Vig
White	29.6	67.1	3.3	47.5	50.5	2.0
Hispanic/Latino	33.3	64.3	2.4	41.5	57.5	1.0
Black	23.2	71.4	5.4	34.4	62.0	3.6
Asian/Other	35.7	63.3	1.0	42.4	57.6	0.0
TOTAL	30.7	66.3	3.1	43.5	54.7	1.7

Racial/Ethnic Group	**Adults**			**Seniors**		
	Sed	Mod	Vig	Sed	Mod	Vig
White	70.0	29.6	0.4	75.4	24.6	0.0
Hispanic/Latino	65.5	34.0	0.5	66.7	31.3	2.1
Black	58.9	39.9	1.2	88.2	11.8	0.0
Asian/Other	67.5	32.1	0.4	56.3	43.8	0.0
TOTAL	67.3	32.3	0.5	72.9	26.5	0.5

[b] Totals represent pooled data for visitors to three selected state parks in north Georgia.

Table I.9

Observed Physical Activity Categories for North Georgia State Park Visitors[a] (% of Total) at Trailheads, Summer 2010 (by Demographic Group) (n = 2061)

Demographic Group	Physical Activity Level at Trailhead		
	Sedentary	Moderate	Vigorous
Gender			
Females	9.7	85.5	4.8
Males	7.2	74.3	18.5
Age			
Children	7.5	89.7	2.8
Teens	9.0	79.8	11.2
Adults	8.4	75.8	15.7
Seniors	8.3	80.6	11.1
Race/Ethnicity			
Whites	6.3	80.5	13.2
Hispanic/Latinos	22.4	67.2	10.4
Black/African Americans	22.9	66.1	11.0
Asian/Other	8.1	87.0	4.9

[a] Totals represent pooled sample of visitors to all three north Georgia state parks.

Table I.10

Mean Amount of Additional Money Visitors to Three North Georgia State Parks were Willing to Pay (WTP) to Enter Park, Summer 2010

Park	n	Mean Additional WTP[a]	SD	% Agreeing to Pay More
Fort Mountain	280	$2.83	4.28	53.3
Fort Yargo	348	$1.93	3.19	41.1
Red Top Mountain	361	$2.92	5.82	49.5
TOTAL	989	$2.54	4.62	47.6

[a]Current Georgia state park per vehicle entrance (parking) fee is $5.

Table I.11

North Georgia State Park Visitors[a] *Response to Various Proposed Park Entrance Fees, Summer 2010*

	Proposed Fee Amount			
Response	**$5**[b] n = 266	**$7** n = 252	**$10** n = 255	**$15** n = 255
Visits would decrease (%)	7.9	20.2	45.1	56.5
Visits would stay the same (%)	78.9	74.2	52.2	41.6
Visits would increase (%)	13.2	5.6	2.7	2.0

[a] Totals represent pooled sample of visitors to all three north Georgia state parks
[b] Current Georgia state park per vehicle entrance (parking) fee is $5.

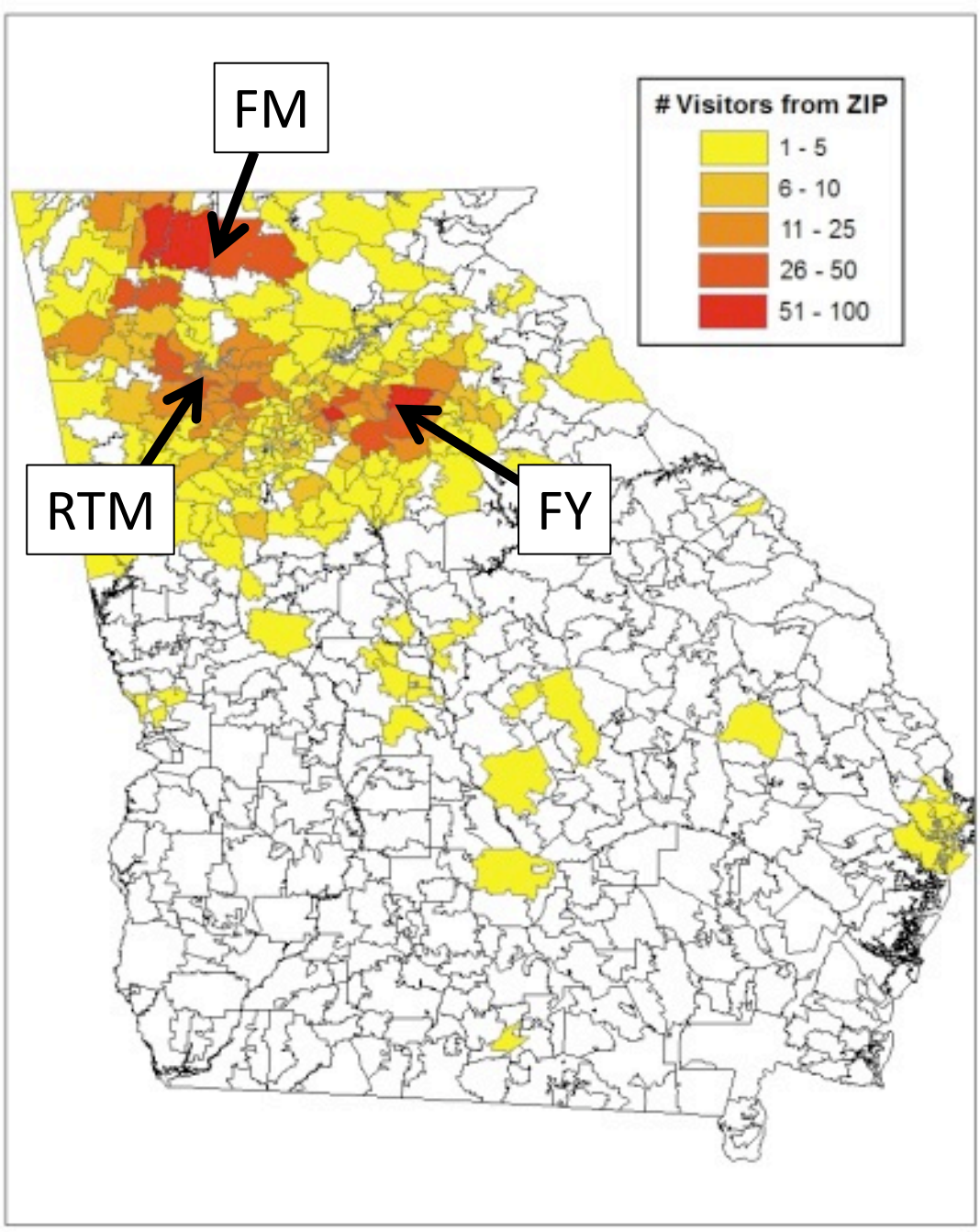

Figure I.1. Distribution of visitors to Fort Mountain (FM), Fort Yargo (FY) and Red Top Mountain (RTM) State Parks in Georgia based on intercept survey participants' reported ZIP code at point of origin, summer 2010 (n = 1985)

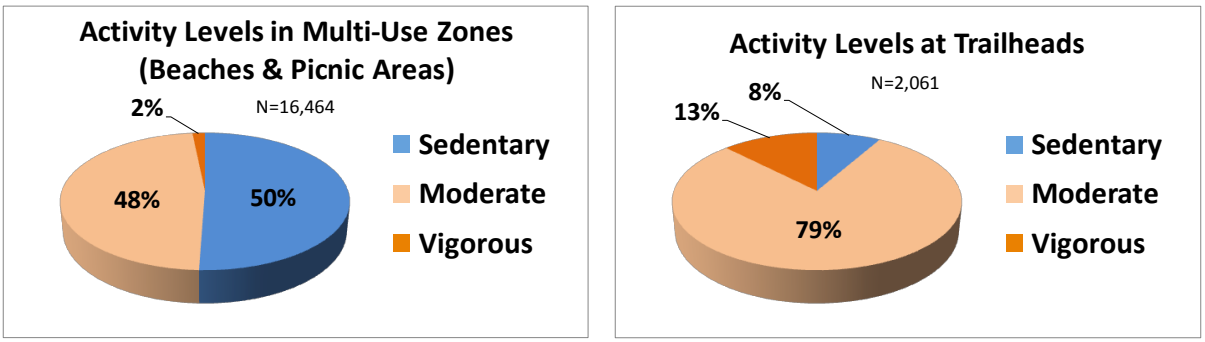

Figure I.2. Observed physical activity levels for pooled sample of visitors to three north Georgia state parks (by park zone), summer 2011

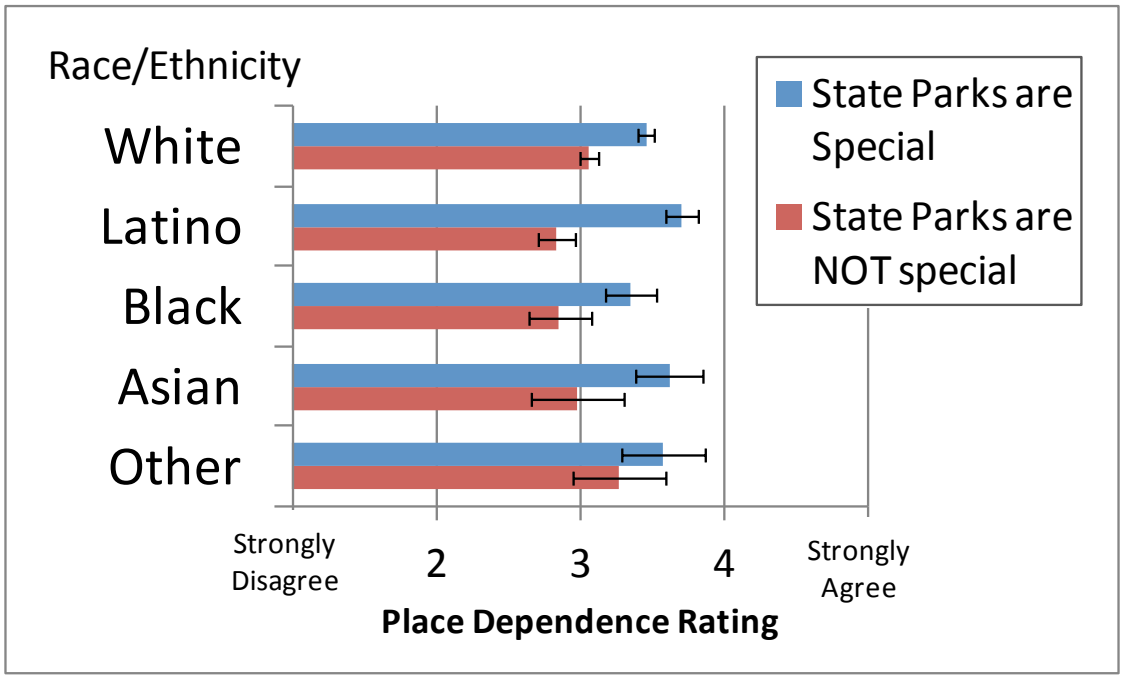

Figure I.3. Aggregate place dependence ratings for pooled sample of visitors to three north Georgia state parks (by race/ethnicity), summer 2010 (n = 987)