Motivations and Constraints to Young Adult and Minority Visitation to Sites in the National Park Service

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MOTIVATIONS AND CONSTRAINTS TO YOUNG ADULT AND MINORITY VISITATION TO SITES IN THE NATIONAL PARK SERVICE

By

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of the Requirements for
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The National Park Service (NPS) has often been called “America’s Best Idea” and over 400 areas are preserved and protected by the United States NPS for the public’s enjoyment. When examining current visitor trends throughout the NPS, vast differences exist in the number of White versus racial/ethnic minority visitors, as well as a lack of young adult visitors to the parks. As the United States demographics shift to include a larger proportion of minorities, and current young adults grow older and have the financial ability to visit areas in the NPS, it is important to examine how the NPS will change to attract these visitors. The overall goal of this project is to better understand visitation to NPS sites by college students from diverse demographic groups.

In order to look at motivations and constraints in regard to visitation to NPS sites for both young adults and racial/ethnic minorities, a survey was distributed to undergraduate students at the University of South Carolina. In the survey, participants were asked about their agreement with motivations and constraints, as well as demographic and other behavioral questions. Survey data were collected from a total of 459 students. Multivariate analysis of covariance (MANCOVA) was used to explore differences in motivations for and constraints to NPS visitation according to race/ethnicity, controlling for other key covariates. The study is one of the first to analyze NPS motivations and constraints specific to young adults.

This study identified key motivations (nature and vacation) and constraints (lack of time and knowledge) for young adult visitors to sites in the NPS. We also found differences in constraints between Non-Hispanic Whites and racial/ethnic minorities. Non-Hispanic Whites had
stronger agreement with motivations (vacation, proximity, and cost) while racial/ethnic minorities had stronger agreement with constraints (lack of interest, lack of vacation history, lack of sense of belonging, and NPS units being an unpleasant place to be).

We found that racial/ethnic minorities often have a stronger agreement with constraints than Non-Hispanic Whites, while Non-Hispanic Whites have stronger agreement with motivations than racial/ethnic minorities. This offers insight into visitation differences and it is critical that the NPS understand these differences in motivations and constraints and identifies ways to address them in order to diversify its visitation. Findings from this study will be used to make recommendations for the NPS on how to attract both young adult and minority visitors.
**ABSTRACT**

**Introduction:** The National Park Service (NPS) has often been called “America’s Best Idea” and over 400 areas are preserved and protected by the United States NPS for the public’s enjoyment. When examining current visitor trends throughout the NPS, vast differences exist in the number of White versus racial/ethnic minority visitors, as well as a lack of young adult visitors to the parks. As the United States demographics shift to include a larger proportion of minorities, and current young adults grow older and have the financial ability to visit areas in the NPS, it is important to examine how the NPS will change to attract these visitors. The overall goal of this project is to better understand visitation to NPS sites by college students from diverse demographic groups.

**Methods:** This study was conducted with participants from the University of South Carolina undergraduate population. We used department listservs and organization email lists to distribute the survey. Ethnicity (Hispanic or Latino) and race (Caucasian, Black or African American, Native Hawaiian or Pacific Islander, Asian, Native American or Alaska Native (with options for other and multiple races)) of participants were captured using questions from the United States Census. Factors that influence participants' visitation to NPS sites were measured using scales representing motivations and constraints. For motivations, we evaluated the importance of 13 items (e.g., nature, exercise, wildlife) and for constraints, we assessed the salience of 16 factors (e.g., transportation, cost, language accessibility). Both dimensions were measured on a Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree). Survey data were collected from a total of 459 students. Multivariate analysis of covariance (MANCOVA) was used to
explore differences in motivations for and constraints to NPS visitation according to race/ethnicity, controlling for other key covariates. The study is one of the first to analyze NPS motivations and constraints specific to young adults.

**Results:** This study identified key motivations (nature and vacation) and constraints (lack of time and knowledge) for young adult visitors to sites in the NPS. We also found differences in constraints between Non-Hispanic Whites and racial/ethnic minorities. Non-Hispanic Whites had significantly stronger agreement with several motivations (vacation, proximity, and cost) while racial/ethnic minorities had stronger agreement with certain constraints (lack of interest, lack of vacation history, lack of sense of belonging, and NPS units being an unpleasant place to be).

**Conclusion:** Racial/ethnic minorities had stronger agreement with constraints than Non-Hispanic Whites, while Non-Hispanic Whites had stronger agreement with motivations than racial/ethnic minorities. This offers insight into visitation differences and it is critical that the NPS understand these differences in motivations and constraints and identifies ways to address them in order to diversify its visitation. Findings from this study will be used to make recommendations for the NPS on how to attract both young adult and minority visitors.
INTRODUCTION

The Grand Canyon. The Statue of Liberty. The Everglades. These are just three of the over 400 areas that are preserved and protected by the United States National Park Service (NPS) for the public’s enjoyment (United States, 2020). In its 100-year history, the NPS has grown to include not only parks, but also monuments, historic and military parks, seashores, lakeshores, rivers, parkways, scenic trails, and other recreational areas. Areas protected by the NPS are found in almost every state and in some U.S. territories, and include elements from all time periods in American history (Mackintosh, 1988). The NPS has often been called “America’s Best Idea” (Weber & Sultana, 2013, p. 437). However, how can we continue to give this accolade to the NPS if they do not continue to change the way that the park service functions to include visitors across all of the demographics that are found in the United States? When examining current visitor trends throughout the NPS, there is a vast difference in the number of White versus racial/ethnic minority visitors, as well as the lack of young adult visitors to the parks (Taylor et al., 2011). As the demographics of the United States shift to include a larger proportion of minorities (Frey, 2018), and current young adults grow older and have the financial ability to visit areas in the NPS, how will the NPS change to attract these visitors? If the NPS fails to attract more visitation by minorities and young adults, they face the possibility of losing support for their funding in the future and ultimately, this could lead to the downfall of “America’s Best Idea.”

One main issue facing the NPS is the disparity of visitation between Non-Hispanic Whites and racial/ethnic minorities. A study conducted in 2000 by Northern Arizona University
showed that while 36% of Non-Hispanic White Americans had visited a National Park, only 13% of African Americans had done the same (NPS Visitation Trends, 2006). Since it has been predicted that Whites will be the numerical minority by 2050, it is important that all people are included in the history and sites in the National Park Service (Colby & Ortman, 2014). One reason this might occur is the lack of diversity in whose history is being told at NPS sites. Traditionally speaking, the history and stories presented are the history of White people (Scott & Lee, 2018). This is potentially discouraging to people from racial/ethnic minority backgrounds because even in places that should showcase the history of these minority groups, this is not occurring and therefore, these minorities are not visiting these areas. In certain sites in the NPS, this has been accomplished successfully. For example, the proportion of visitors at the Manzanar National Historic Site tends to lean more in favor of Asian Americans, since it is a site of a Japanese internment camp and is more relevant to their personal history (Weber & Sultana, 2013). If this diversity in history were to be implemented in sites across the nation, there is a chance that visitation among minority populations would increase in accordance with these changes.

Additionally, another factor that may contribute to the lack of diverse visitors is the inability of the NPS to connect with the community surrounding their sites. One example of a park where visitation does not match the demographics of the surrounding area is Saguaro National Park near Tucson, AZ. Tucson is about 44% Hispanic or Latinx, but only approximately 2% of Saguaro’s visitors self-identify as Hispanic or Latinx, showing a clear disconnect between the two areas despite being, at most, 20 miles apart. From interviewing locals, some reasons why visitation is low are clear: there is a lack of signage in Spanish and lack of public transportation
to/from the park. Additionally, parks have been portrayed as a place of quiet solitude and reflection, which is very different from the Latinx family atmosphere of going as a large family unit and being loud (Rott, 2016).

Another factor contributing to low visitation by minorities is the demographics of the NPS staff and volunteers. Approximately 80% of the 22,000 NPS employees and 220,000 volunteers are White (Rott, 2016). While the NPS has recognized this constraint and has implemented programs and initiatives aimed at increasing the diversity of its workforce, very little has changed. This slow rate of change is attributed to preferential hiring mandates as well as the complicated federal job application system. There is also very low job turnover, but they feel that as the baby boomers are beginning their retirement, there will soon be more opportunities to diversify the workforce (Rott, 2016).

Another issue facing the NPS is the lack of young adults that are visiting NPS sites. In a survey that was conducted between 2008 and 2009, only 35% of people between the ages of 18-24 had visited a National Park Site, which was the lowest percentage of all age groups sampled (Taylor et al., 2011). In an age where dependence and addictiveness to technology is rising, with the average person picking up their phone 150 times per day (Osuch & Turner, 2017), fewer and fewer young people are willing to go into nature, especially since there is a chance that they will not have the ability to maintain constant contact with the outside world. Studies have shown that younger people see technology as an asset to these recreational spaces, though this can create a conflict with more traditional views of how nature is perceived (Gramann, 2003). This would be a balance the National Park Service would have to manage in order to increase young adult visitation in the future.
One might think that the lack of visitation to NPS sites by young adults and racial/ethnic minorities may be due to a lack of visitation to NPS sites overall. In fact, the opposite is true. Between 2013 and 2018, visitation to sites in the NPS increased by 16%, partially due to the “Find Your Park” campaign created to celebrate the NPS’s centennial (Carlton, 2019). This shows that although the NPS is successful in their marketing to increase visitation in general, they are not encouraging visitation from both young adult and diverse visitors. One main reason that could be behind this is a general lack in visitation history by these groups. Unfortunately, a family trip to these parks has not always been a possibility for all Americans. National Parks themselves have a history of segregation that did not change until the Civil Rights Act was passed in 1964 (Beech, 2020). Additionally, there exists the notion that the parks were created to preserve “untouched” wilderness when in fact many Indigenous populations had lived in these areas for generations and were forced to leave when these areas were named National Parks (Beech, 2020). Both of these events in history have created a distrust towards the NPS by minority groups.

The NPS is well aware of the lack of diversity in their visitation. In 2015, Jonathan Jarvis, director of the NPS at that time, stated that increasing diversity would be a top priority as the NPS entered its second century (Rott, 2016). Unfortunately, less than one quarter of all NPS sites have a focus on Non-White history (Jacobs & Hotakainen, 2020). Only recently have sites been added which represent a diverse history. The Obama administration added national monuments that celebrate this history, with Fort Monroe National Monument which marks the site where enslaved people first arrived in 1619 as well as the Harriet Tubman Underground Railroad National Historic Park which honors those who used the Underground Railroad to free
enslaved people, among a few other national monuments (Jacobs & Hotakainen, 2020). There is
also the Manzanar National Historic Site, which is a site of a Japanese internment camp (Weber
& Sultana, 2013). Otherwise, there are few places where the history of the culture and park
focuses on a Non-White population.

Lastly, we as a country are experiencing a cultural shift from spending time outdoors to
spending more time inside. Americans across all age groups are spending less time outside than
they were a decade ago (A New Notion of Nature, 2018). Almost half of the population does not
participate in any outdoor recreation at all. When comparing numbers across a decade, the data
show that one billion fewer outdoor activities happened in 2018 in comparison with those that
occurred in 2008. This change has been hypothesized to be due to increased use of technology as
well as there being a cost of entry to many outdoor spaces (A New Notion of Nature, 2018). This
shift will lead to fewer people wanting to visit sites in the NPS because nature will be unfamiliar
and not a part of their daily routine.

Thus, there are multiple issues the NPS needs to address in order for them to have a
sustainable future. There is a need for the NPS to understand their visitors, and potential visitors,
in order to appropriately address these issues in regard to visitation. This understanding comes
from understanding the motivations and constraints faced by their visitors and non-visitors. If the
NPS can find a solution to address these issues, they will be able to continue their role as
“America’s Best Idea.”
LITERATURE REVIEW

History of the National Park Service

The NPS started with an idea. In 1832, while traveling in the West, artist George Catlin had an epiphany that a national park needed to be established to preserve America’s beauty. When he published these thoughts, they received little attention (Duncan, 2010). The idea to preserve part of America’s beauty was revived when Senator John Conness of California created a Yosemite Bill. He proposed that a large piece of land in California be set aside for public use and would not be able to be sold for private ownership. This piece of land, which became a state park in 1864, was Yosemite Valley and the Mariposa Grove of Big Trees. This represented the first time that land was set aside for the enjoyment of the people (Duncan, 2010). Yosemite became well known with the help of naturalist John Muir. Muir had discovered the wonders of Yosemite and worked to share these with tourists (Duncan, 2010). The first national park to be established was Yellowstone on March 1, 1872 (Duncan, 2010). Yellowstone was discovered in 1870 by a group hired by the railroads to find an attraction to increase their sales (Duncan, 2010). It was then visited by a professional expedition which included photographers, who showed the American public the beauty of Yellowstone (Duncan, 2010). Congress was assured by Ferdinand V. Hayden, head of the Geological and Geographical Survey of the Territories, that the land set aside for the national park would not be suitable for farming and would not contain valuable mines (Duncan, 2010). Thus, America’s first national park was born.

Theodore Roosevelt played an influential role in expanding the amount of land that was protected by the government. Roosevelt, along with anthropologist George Bird Grinnell, lobbied for a law to allow Yellowstone's caretakers to have clear authority to protect the wildlife.
On May 7, 1894, Grover Cleveland signed the Lacey Bill, which established regulations to protect the park's wildlife and internal resources (Duncan, 2010). During his presidency, Roosevelt helped establish five national parks, 18 national monuments, and added land to Yosemite (United States, 2017b). He signed a law in 1906 creating Mesa Verde National Park, the first park that celebrated historical culture and people (Duncan, 2010). He also helped transfer Yosemite and Mariposa Grove to the federal government and made them national parks after spending time camping there with Muir in 1903 (Duncan, 2010). This set the stage for the creation of a National Park Service.

Congress had tried to pass legislation creating a NPS every year between 1911 and 1915 but failed due to lack of NPS supporters in Congress and fierce opposition from the Forest Service (Albright, 1985). Stephen T. Mather was the driving force behind the creation of the NPS. He was a businessman who complained to the Secretary of the Interior, Franklin K. Lane, about how the national parks were poorly run. Mather was then challenged by Lane to run them himself, and he agreed (Heacox, 2016). Mather, along with conservationist Horace M. Albright, felt that a unified park service was needed because there was no coordinated administration for the parks and they were not receiving a lot of attention (Albright, 1985). At this time, the existing parks and monuments were governed by the Department of the Interior, the War Department, and the Agriculture Department (Mackintosh, 1988). The Secretary of the Interior was in charge of preserving and protecting the parks, with assistance from the Secretary of War, while the War and Agriculture Departments were in charge of national monuments (McDonnell & Mackintosh, 2005). Mather and Albright proposed a bill that would establish a governing body to conserve resources and provide for public enjoyment and have enough power to establish their own
regulations (Albright, 1985). After the bill passed through Congress, Albright put it with the army appropriations bill to be signed by the President (Albright, 1985). The Organic Act was signed by Woodrow Wilson on August 25, 1916, establishing the NPS (Mackintosh, 1988). Now that the NPS was established under the Department of the Interior, Mather and Albright worked for its expansion. Since the idea started in 1832, the NPS has grown to include over 350 areas. It continues to work to protect our nation’s natural resources. It preserves these sites to allow the public to enjoy the beauty of America that existed prior to the time of its birth.

When the NPS was created in 1916, land protected by the federal government had been distributed among many agencies in the Department of the Interior. Executive Order 6166 in 1933 transferred 56 national monuments and military sites from the Forest Service and the War Department to the NPS. This created a system that included sites of historical, scenic, and scientific importance. Franklin D. Roosevelt also transferred the national monuments from the Department of Agriculture to the NPS (United States, 2016). The transfer of sites from the War Department allowed the NPS to be able to offer the educational services that the War Department did not have (Albright, 1985). The Historic Sites Act of 1935 added many historic sites for the benefit of the American public (Mackintosh, 1988). This allowed Americans to go to battlefields from the Revolutionary and Civil Wars and experience an integral part of American history firsthand. In 1964, the National Natural Landmarks Act passed, where the NPS would identify and help protect natural places of national significance that were currently outside of the NPS. This helped to establish over 600 natural landmarks between 1964 and 1986 and created an opportunity for American citizens to learn about unique structures in nature that may only occur in a few places in the world, such as Old Faithful (Mackintosh, 1988). As documented in this
brief history of the NPS, the NPS has worked hard to preserve sites that contain America’s unique natural resources, as well as sites that preserve areas that are very historic. It is clear, however, that the preservation of these sites is reflected in White history, not the history of all Americans.

The first site in the NPS to be specifically devoted to African Americans was the George Washington Carver National Monument in 1943. Many Native American sites also exist in the NPS, with the majority being sites of battles between the Native Americans and the United States. Currently, there are no sites which specifically honor any Hispanic culture or history. In 1952, a couple sites were created to preserve native Hawaiian culture. As previously mentioned, Manzanar National Historic Site preserves history associated with Japanese Americans, but no other Asian American groups have sites related to their history in the NPS (Weber & Sultana, 2013). Although these sites exist that focus on the history and culture of racial/ethnic minorities in the United States, they do not make up a large portion of all NPS sites.

In addition to examining the history of the NPS, it is important to recognize other historical events that also may have had an impact on the NPS. Before the Civil Rights Act of 1964, many racial/ethnic minorities were either segregated or prohibited from public outdoor recreational spaces (Lee & Scott, 2016). We can see this in regard to the Jim Crow laws in the Southeast U.S. When the land was given to the NPS for Great Smoky Mountains and Shenandoah National Parks, it originated from being state land, which gave these states the power to insist that Jim Crow laws be enforced (Young, 2009). Additionally, throughout the history of the NPS, many of the conservationists critical to the NPS’s establishment did not do anything to encourage visitation by racial/ethnic minorities (Jordan & Snow, 1992).
General Visitation Trends

The lack of diversity is apparent among the visitation to NPS sites. A study conducted by Taylor et al. (2011) served as a comprehensive survey of the American public in regard to visitation at sites in the NPS. Of the visitors surveyed, 46.7% noted that learning about culture and history added a lot to their experience, as did learning about nature for 37.3% of visitors and viewing nature for 68.1%. This survey also collected demographic information about the visitors who were surveyed. From this data, the vast majority of visitors were high school graduates or had completed more schooling, with over 50% having an undergraduate or graduate degree. In addition, only about 5% of respondents were Hispanic or Latinx, while 83.3% of visitors were White, with 5.3% Black, 2.3% two or more races, and 4.3% other. Visitors between the ages of 45-64 made up about 50% of the visitors surveyed, with those between 18-24 years being the smallest group at 4.4%. Of the visitors surveyed, there was a fairly equal distribution of men (49.5%) and women (50.5%) surveyed. Additionally, of those surveyed, 49.8% had a total household income of $75,000 and above for the previous year before taxes.

As a whole, although visitation totals increased faster than the total population from 1945 to 1985, visitation rates are declining. This comes even as over 281 million visitors visited these sites in 2010 (United States, 2010). From 1989 to 2004, visitation by people in their mid-teens to their mid-thirties dropped from 27 to 19 percent of all visitors to NPS sites. These data are critical to emphasizing the need for the NPS to understand why visitation rates among this age group have declined. Once they gain that information, the NPS must work to discover ways to engage this population, as they are the future of NPS visitors. One way to do this is to work on increasing leisure opportunities for children, as it has been documented that interests as an adult
are learned as a child (*NPS Visitation Trends*, 2006). A survey conducted in 2003 regarding NPS visitation found that 36% of Whites visited a NPS unit in the past two years, compared to 33% of Native Americans, 29% of Asian Americans, 27% of Hispanics, and 13% of African Americans (Solop et al., 2003). These results were similar to the NPS survey conducted in 2009 (Taylor et al., 2011).

**Motivations for Visitation**

In regard to outdoor recreation, motivations are defined as what drives a person to visit or engage in a certain activity. Motivations can also be viewed as goals that a person is attempting to gain from their experience (Ajzen, 1991). Motivations in relation to outdoor recreation have been studied extensively and include escape, relaxation, and time in nature (Pearce, 2005). Additionally, there are push and pull factors which provide insight into visitor motivations, where push factors are emotional influences on the choice to travel to a certain place whereas pull factors are those that explain the perceived emotional benefits gained from visiting this place (Goossens, 2000). Understanding visitation motivations are critical to developing strategies to increase visitation to a certain site.

Thus, it is important to understand what motivates people to visit NPS sites. A study by Taylor et al. (2011) served as a comprehensive survey of the American public about visitation at sites in the NPS. This study reported that among visitors to sites in the NPS, some of the top motivators were sightseeing (42.8% of visitors), vacationing with friends and/or family (33.8%), and visiting a cultural or historic site (16.2%). Other factors identified were viewing educational sites, hiking, proximity, camping, recreation, fishing, and viewing wildlife/nature. In Weber and
Sultana’s (2013) study, they found that minority visitation is usually highest at parks that follow a theme related to their racial/ethnic minority’s culture or history.

Parks have also been shown to provide opportunities for visitors to connect deeply with spirituality, culture, heritage, and family (Moyle et al., 2014; Sharpley & Jepson, 2015). A comprehensive literature review by Pickering and Byrne (2014) showed that there were five main types of travel related to parks: health and wellness, nature-based physical activity, spiritual travel, cultural travel, and volunteering/voluntourism. Health and wellness travel, as well as nature-based physical activity, are experiences which contribute to physical or emotional wellbeing (Smith & Kelly, 2006). Spiritual travel involves an experience where the visitor has the opportunity for self-reflection (Willson, 2008). Those who travel for the cultural experience often want to learn about customs and cultures different from their own (Ross, 2010). Lastly, voluntourism involves those visitors who strive to give back to the community for the nature surrounding it (Cassie & Halpenny, 2003). Each of these types of travelers have their place as visitors to the NPS.

Other authors have provided additional categorizations of motivations for visitation. For example, Wolf et al. (2017) described “travel/escape, new experiences, nature/scenery, exploration, health/fitness or well-being, relaxation, stress reduction, social networking, risk or challenge, enjoyment/excitement; personal or professional development, or new skills; cultural, religious or spiritual enlightenment; independent or social experiences; authentic or humanitarian experiences; guest–host interaction; and willingness to pay for experiences” as motivations (p. 1655). Additionally, a different study by Rice et al. (2019) found that the most common reasons cited for visitation are both social and ecological motivators, such as enjoying nature, escape,
relaxation, quiet, family/friend togetherness, and safety. They also discovered that motivations could vary based on location, such as lakes attract visitors to participate in water related areas, whereas mountains attract more hiking.

Constraints to Visitation

Constraints are defined as factors that limit one’s ability to form leisure preferences, as well as potentially limit or prohibit participation in leisure activities (Jackson, 2000). There are three main types of constraints: intrapersonal, interpersonal, and structural. Intrapersonal constraints refer to individual psychological constraints such as anxiety or fear. Interpersonal constraints refer to social factors that limit one’s preferences, such as friends and family who have different activities. Structural constraints are those that occur when one has an interested in an activity but is unable to participate due to an external factor, such as cost or time (Crawford & Godbey, 1987). In terms of our study, constraints would be anything that could limit visitation to a NPS site but does not necessarily keep one from visiting.

In addition to considering what motivates people to visit, it is also important to examine what prevents or constrains them from visiting. In the study by Taylor et al. (2011), entrance fees were considered “too high” more often by non-visitors, with 28.2% of non-visitors either strongly or somewhat agreeing with the statement that entrance fees are too high compared to 19.6% of visitors. As well, 10.1% of non-visitors strongly or somewhat agreed that NPS sites are not safe places to visit compared to 2.7% of visitors. Further, 8.7% of non-visitors strongly or somewhat agreed with the statement that NPS sites are unpleasant places for them to be compared to 2.6% of visitors. Additionally, 49.0% of non-visitors strongly or somewhat agreed with the statement that NPS sites take too long to get to from their home compared to 34.6% of
visitors. Moreover, 14.2% of non-visitors strongly or somewhat agreed with the statement that NPS sites are not accessible to persons with physical disabilities compared to 17.7% of visitors. Awareness is another big factor in that 59.8% of non-visitors strongly or somewhat agreed with the statement that they did not know much about NPS system units compared to 29.7% of visitors. Related to this, the study also found that 28.0% of non-visitors strongly or somewhat agreed with the statement that there was not enough information available about what to do once one they got inside a NPS unit compared to 17.1% of visitors. Finally, 8.4% of non-visitors strongly or somewhat agreed with the statement that NPS employees give poor service to their visitors compared to 4.5% of visitors.

Another constraint to visitation that has been studied is the role of geography. The closer one is to a park, the more likely they are to visit (McKercher et al., 2008; Nicolau, 2008). It has also been shown that the region of the country where one lives influences their awareness of recreational opportunities. The closer that people are to a NPS site, the more likely they are to have access to information about the site, as well as the ability to take a short trip to visit (Johnson et al. 2007). Since the majority of the National Parks are concentrated in the Western states, it can imply that people who live in the Western U.S. have greater awareness surrounding National Parks, as well as greater ability to visit these places since the distance that they have to travel is shorter.

Another issue closely related to distance to a park is the accessibility to sites in the NPS. In a study conducted by Weber and Sultana (2013), they examined data from visitor surveys from 51 NPS units from the Park Studies Unit at the University of Idaho and examined visitation by racial/ethnic minorities. They observed that Whites have the highest accessibility to parks,
followed by African Americans, Hispanics, Asian Americans, and Native Americans. At the units surveyed, it was found that African Americans made up an average of 2.00% of the visitors and Hispanics made up 3.72%. Asian Americans were 3.45% of the visitors and Native American visitation was 2.08%. The data also showed that these groups were much more likely to make up a substantial percentage of visitation at sites that are close to locations in the U.S. where these groups are concentrated. This study also found that while Hispanics have a stronger relationship to National Parks than to other park units, the opposite is true for African Americans and Asian Americans. This suggests that Hispanic prefer these large nature areas to historic sites or museums run by the NPS. It also suggests that African Americans and Asian Americans seem to have a preference for historic sites and museums. This might be explained by lingering negative associations with nature (Carter, 2008). It is also important to note that the authors of this study have noted that geography does not explain all of the difference between White and racial/ethnic minority visitation to NPS sites. Thus, it is important that we explore other possible factors.

Socioeconomic status plays a large role in visitation to sites in the NPS. Approximately 69% of Americans who have a household income of over $150,000 have visited at least one National Park in the last two years, whereas among Americans with a household income of less than $10,000, only 22% have (Taylor et al., 2011). In addition to their lack of financial resources, poorer Americans are more likely to lack the information and transportation to visit the parks, and are also made to feel inadequate by other visitors and park employees (McCarville, 2008). NPS sites also have a historical connotation of having a socioeconomic divide as their roots.
come from the elitist preserves of the 19th century (Bultena & Field, 1978; Byrne & Wolch, 2009; Kafarowski, 2003; Sax, 1976).

Another constraint that ties into socioeconomic status is that of safety. Racial/ethnic minority residents often live in urban areas and poorer suburbs more likely to be characterized by high crime rates. Since parents are worried about the safety of their children, they often will not let them play outside, which impacts their ability to gain the skills and knowledge needed to enjoy the outdoors (Outley & Floyd, 2002).

Another potential constraint to visitation is disinterest. In the last few decades, there has been a trend which shows that children are increasingly becoming disconnected from nature. This stems from youth spending less time in nature settings, which leads to a decreased interest in outdoor physical activity. This disinterest creates less appreciation for nature (Louv, 2005). This disinterest in regard to nature could lead to a disinterest in visiting NPS sites, as nature is a focal point in many of these sites. Additionally, for the next several years, the baby boomer generation’s visitation numbers will increase as they retire. Although this may lead to an increase in their visitation due to more free time, it can also present physical barriers to visitation as they are an aging population and might not be able to get around as easily as in past (Gramann, 2003). These potential physical challenges may create a disinterest in visiting as it may be seen as too challenging for one to try and attempt. Another change is the proportion of the U.S. population who were born outside of the U.S. – 11% as of the 2000 census. This may lead to a disinterest in the NPS as the history that is being told is not relevant to their lives (Gramann, 2003).

Another constraint to visitation might be that visitors have other sites close to them which offer the same experiences as National Parks, so they visit these instead. This is apparent in the
Southeast where a lot of land is managed by the Bureau of Land Management. This could offer competing opportunities for outdoor engagement for visitors (Weber & Sultana, 2013). However, a study by Flores et al. (2018) showed that this gap in racial/ethnic minority visitation can also be seen in sites in Forest Service regions. Additionally, as the travel industry has grown larger, there has been more competition, such as visitation overseas and to more material attractions (Pergams & Zaradic, 2008; Weiler et al., 2013).

One reason believed to increase constraints to visitation is the growth of two-income households across the country. With two people working, it made it harder for families to coordinate the same weeks off for vacation, which impacted their ability to tackle long trips across the country (NPS Visitation Trends, 2006). In addition to this change in family structure, there are also an increasing number of “non-traditional” families (those not headed by a heterosexual married couple). This leads to the need for different types of facilities within the park, as well as differing concerns regarding safety (Gramann, 2003).

A reason for lack of visitation occurs when people have not had the opportunity to learn the skills, appreciation, and knowledge of the outdoors (Scott & Lee, 2018). Another factor which prohibits visitation is the language in which information at these sites is being presented. The NPS has examined how although Washington D.C. has people from all over the world, the majority of the signage at sites in this city are still presented in English, and English only (Gramann, 2003).

Racial and Ethnic Minority Visitation to Sites in the NPS

For this study, it is important to understand the current situation regarding racial/ethnic minority visitation to sites in the NPS. Data regarding differences between White and
racial/ethnic minority visitation were first seen when researchers began collecting visitation data in the 1960s (NPS Visitation Trends, 2006). In 2000, a survey conducted by Northern Arizona University for the NPS revealed that some of the differences in this visitation could be attributed to lack of information about the parks and what to do in them, as well as high travel costs (NPS Visitation Trends, 2006).

Scott and Lee (2018) claim that there are three main reasons which contribute to low visitation by members of the African American community: boundary maintenance and cultural factors, limited socioeconomic resources, and discrimination and White racial frames (Scott & Lee, 2018). As mentioned in the previous section, socioeconomic status is a large constraint to visitation. This is more heavily seen in the African American community where African Americans earn less than Whites, even when both groups are at the same education level (Bowser, 2007).

One main factor is the *ethnicity hypothesis*, which is that this difference in leisure and outdoor activities can be attributed to differences in cultural norms and value systems (Floyd & Stodolska, 2014). Thus, outdoor participation can be constrained and facilitated by culture. This can especially be seen in the African American community, where the leaders of this community can limit participation in what is seen as “White” activities. This idea is perpetuated by advertisements in magazines which only portray White people enjoying nature and NPS sites (Martin, 2004). This can lead to the idea of *boundary maintenance*, which is the process of highlighting differences between racial/ethnic communities (Gramann & Allison, 1999). This leads to people not participating in activities not prescribed to the community because they do not want to be portrayed as outsiders.
Many racial/ethnic minorities also attribute discrimination as a reason for not wanting to visit sites in the National Park Service. These people have noted that often when traveling to outdoor recreational spaces, they face acts of discrimination by other visitors and staff at the park, which hinders their ability to enjoy the park (Fernandez & Witt, 2013; Sharaievska et al., 2014). This discrimination is also widely seen in regard to Native Americans and the NPS. Historically, Native Americans were forced from their land (Burnham, 2000; Keller & Turek, 1998; Spence, 1999) and currently many Native Americans are involved in legal battles over NPS sites (Sproul, 2001; Taylor & Geffen, 2004).

Another contributing factor is the idea of White racial frame, which is central to institutional bias and is defined as the White worldview that encompasses racial stereotypes and prejudices that lead to discrimination (Feagin, 2013). This leads to the idea for Americans that what White people do is the standard for good behavior in society. Thus, by contrast, racial/ethnic minorities become associated with the “bad” in society. This worldview also leads to displays and exhibits at NPS sites being framed for White people’s interpretation and to celebrate their heritage and history. This is partially due to public spaces being viewed as “White spaces” because of previously discussed discrimination laws (Scott & Lee, 2018). Due to these public spaces being viewed as for White people, it leads to increased racial profiling of racial/ethnic minorities in these areas. It also limits people of racial/ethnic minority backgrounds from participating in these outdoor activities because it is intimidating to “invade” this White space. If all of this was not enough to discourage racial/ethnic minorities from pursuing time in NPS sites, letters have been published in National Parks magazine which criticize the NPS’s efforts to increase its diversity (Lucier, 1994).
Visitation by Native Americans is also limited by the impact of history on the current community. Natives Americans see sites in the NPS as sources of humiliation, destruction of their culture, and symbols of Whites conquering the West (Henn et al., 2010; McAvoy, 2002; Meeker, 1973). Unfortunately, there are not a lot of data available regarding Native American visitation specifically, but in recent years, the National Park Service has worked to increase Native American involvement with NPS sites. For example, at Grand Canyon National Park, there is the opportunity for visitors to engage with First Voice cultural demonstrators and interpreters. Similar programs are being implemented in other sites across the country (United States, 2017a). Hopefully this increased involvement will not only help diversify the history being told at these sites, but also work to strengthen ties between the two groups and increase Native American visitation.

*Young Adult Tourism*

In general, young adults, defined as being 18 to 24 years old, are seen as cheap travelers and can be viewed as irresponsible travelers (Chen et al., 2013). Although young adults will play an increasingly important role in society, their habits in regard to travel are relatively understudied (Carr, 1998). This has led to a lack of information in regard to their preferences, as well as motivations and constraints, for their leisure. These travelers have been viewed as having the same needs as adults, yet on a smaller scale (Carr, 1998). As stated earlier, young adults make up the smallest group of visitors surveyed in the study conducted by Taylor et al. (2011). Since these young adults will make up the future of travelers in the coming decades, it is important that their motivations and constraints in regard to visitation to NPS sites be studied in order to inform the NPS on how to attract these visitors.
*Gaps in the Literature*

The purpose of the current study is to examine racial/ethnic minority visitation among young adults, specifically those in college. This group has not been the target of any previous studies and they are an important group to research because these individuals are in the stage of life where they, for the first time, have control over their leisure activities. If we can discern what motivates them or is a constraint to them visiting NPS sites, we can create solutions to fix these constraints and programs to expand the motivations. Improving these factors and consequently influencing the travel and visitation trends of these young adults may build a foundation which will influence their leisure activities for the rest of their adult life and help to create a diverse future for the NPS. This study will conclude with strategies the NPS could pursue to increase diversity in visitation among this age demographic.
METHODS

Study Setting and Data Collection

This study was conducted with participants from the University of South Carolina (UofSC) undergraduate population. The UofSC campus comprises 27,275 undergraduate students (2020 Enrollment Data, 2020), with 76.7% White and 23.3% from racial/ethnic minority backgrounds (Demographics, 2020). The UofSC campus is located approximately 19 miles from Congaree National Park, which makes it one of a couple campuses on the East Coast within close proximity to a National Park.

Recruitment of survey respondents occurred using a variety of methods, including through university and departmental email lists, student organizations (including those representing diverse demographic groups), and large undergraduate classes. The survey was also be shared on Facebook and Instagram. A full list of groups contacted can be found in the appendix.

The survey was distributed and conducted electronically through RedCap. It was sent out over the course of three weeks in February 2021 (Dillman, 2000). The survey was conducted anonymously, but at the conclusion, students could provide contact information on a separate page to be entered into a random drawing for one of four $25 Amazon gift cards.

Measures

In this study, the primary independent variable was the ethnicity and race of participants. These demographic questions were based on those in the U.S. Census. Ethnicity was assessed by asking the participant if they are Hispanic or Latinx and the race categories included Caucasian,
Black or African American, Native Hawaiian or Pacific Islander, Asian, Native American or Alaska Native (with options for other and multiple races). We then combined the answers from these two questions to create a new variable with values labeled Non-Hispanic Whites and racial/ethnic minorities. Specifically, if a participant answered either “yes” to the ethnicity question to indicate that they were Hispanic and/or Latinx or selected any other race besides White, they were included in the racial/ethnic minority group.

The main outcome variables of interest were factors that influence participants' visitation to NPS sites. For motivations, we evaluated the importance of 13 items and for constraints, we also assessed the salience of 16 factors. Motivations included factors such as nature, exercise, distance, and wildlife, while constraints measured issues such as transportation, cost, interest, and language accessibility. A full list of motivation and constraint statements from the survey are listed below in Table 1. Both dimensions were measured on a Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree). These scales were used in previous study (Taylor et al., 2011) and have proven effective due to their simplicity for data categorization and ease for participants. The specifics of these questions can also be found in the appendix.

Table 1: Motivations and Constraints

<table>
<thead>
<tr>
<th>Motivations</th>
<th>Constraints</th>
</tr>
</thead>
<tbody>
<tr>
<td>I visit National Park System units to experience solitude and/or spiritual reflection.</td>
<td>Entrance fees are too high at National Park System units</td>
</tr>
<tr>
<td>I visit National Park System units to explore nature.</td>
<td>The hotel and food costs are too high at National Park System units</td>
</tr>
<tr>
<td>I visit National Park System units to get exercise.</td>
<td>National Park System units are not safe places for me to visit</td>
</tr>
<tr>
<td>I visit National Park System units to observe wildlife.</td>
<td>It takes too long to get to National Park System Units from my home</td>
</tr>
<tr>
<td>Reason for Visiting National Park System Units</td>
<td>Motivations and Constraints</td>
</tr>
<tr>
<td>----------------------------------------------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td>I visit National Park System units to learn about the culture at a certain site.</td>
<td>National Park System Units are too crowded.</td>
</tr>
<tr>
<td>I visit National Park System units to learn more about the history of an area.</td>
<td>I do not know that much about National Park System Units</td>
</tr>
<tr>
<td>I visit National Park System units because I live close to a National Park System Unit.</td>
<td>My family has no history of visitation to National Park System units</td>
</tr>
<tr>
<td>I visit National Park System units to see something that I do not have in my area of the country.</td>
<td>National Park Service employees give poor service to visitors</td>
</tr>
<tr>
<td>I visit National Park System units to give back to the community through volunteering.</td>
<td>National Park System units are unpleasant places for me to be</td>
</tr>
<tr>
<td>I visit National Park System units to learn more about the environment.</td>
<td>National Park System units do not provide adequate resources in my native language.</td>
</tr>
<tr>
<td>National Park System units are a place I enjoy visiting for vacation.</td>
<td>There is not enough information available about what to do once inside a unit.</td>
</tr>
<tr>
<td>I visit National Park System units for recreation activities (ex. Camping, fishing)</td>
<td>Visiting a National Park Service Unit does not interest me.</td>
</tr>
<tr>
<td>Visiting a National Park System unit is more cost-effective than many other travel options.</td>
<td>I do not feel like I belong at a National Park System unit.</td>
</tr>
<tr>
<td>National Park System units are not accommodating to people with disabilities.</td>
<td></td>
</tr>
<tr>
<td>I have other responsibilities which prevent me from having the time to visit National Park System units</td>
<td></td>
</tr>
<tr>
<td>I have no one who will visit National Park System units with me.</td>
<td></td>
</tr>
</tbody>
</table>

The survey allowed participants to list and rate additional motivations and constraints and to provide open-ended feedback on factors influencing visitation. Finally, participants were asked questions regarding their personal experience with sites in the NPS and additional demographic, behavioral, and attitudinal questions. Questions regarding personal experience with NPS sites included number of visits (multiple choice), sites visited (fill in the blank), and age of first visit (multiple choice). Additional demographic questions included birth year (fill in
the blank), home state (selected from drop-down menu), and parent’s education level (multiple choice). These questions can also be found in the appendix. Behavioral questions included those regarding participant’s usual vacation habits (measured on the same Likert scale as above) and daily screen time (selected from a drop-down menu). The attitudinal questions included environmental consciousness and incorporation of nature into their life as a child, which were measured on a five-point Likert scale.

**Analysis**

Multivariate analysis of covariance (MANCOVA) was used to explore differences in motivations for and constraints to NPS visitation according to race/ethnicity, controlling for other key covariates. After analyzing the data from our dataset as a whole, we also looked at differences in results disaggregated by the categories of Non-Hispanic White and racial/ethnic minority. Means and standard deviations were reported for each group for each motivation and constraint studied. Both unadjusted and adjusted comparisons of the differences in means by subgroup were examined. In the adjusted calculations, the covariates included were gender, education level of the participant’s parents, and whether or not the participant had visited an NPS site. All conclusions drawn about the data will come from the adjusted comparisons of means. In our analysis, a threshold of \( p < 0.05 \) was used to indicate that two means were significantly different from one another.
RESULTS

Participant Characteristics

Responses were received from 459 students. Characteristics of these respondents are shown in Table 2. Respondents were predominantly female (79.8%). Additionally, White respondents make up 80.4% of the participants and only a small proportion were Hispanic or Latinx (5.0%). A slight majority of respondents were South Carolina residents, at 55.9%. Over 75% of the respondents’ parents had received some sort of college degree. Respondents were pretty evenly distributed among their years in college. The average age of respondents was 20.2 years old (s.d.=2.36).

Table 2
Sample Characteristics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>N</th>
<th>M (SD) or %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>322</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>57</td>
<td>17.7</td>
</tr>
<tr>
<td>Female</td>
<td>257</td>
<td>79.8</td>
</tr>
<tr>
<td>Transgender Female</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Transgender Male</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Non-binary</td>
<td>6</td>
<td>1.9</td>
</tr>
<tr>
<td>Prefer not to answer</td>
<td>1</td>
<td>0.3</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>0.3</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>312</td>
<td></td>
</tr>
<tr>
<td>Hispanic or Latinx</td>
<td>16</td>
<td>5.0</td>
</tr>
<tr>
<td>Not Hispanic or Latinx</td>
<td>296</td>
<td>95.0</td>
</tr>
<tr>
<td>Race</td>
<td>312</td>
<td></td>
</tr>
<tr>
<td>American Indian or Alaskan Native</td>
<td>1</td>
<td>0.3</td>
</tr>
<tr>
<td>Category</td>
<td>Count</td>
<td>Percentage</td>
</tr>
<tr>
<td>-------------------------------------------------</td>
<td>-------</td>
<td>------------</td>
</tr>
<tr>
<td>Asian</td>
<td>25</td>
<td>7.8</td>
</tr>
<tr>
<td>Black or African American</td>
<td>18</td>
<td>5.6</td>
</tr>
<tr>
<td>Middle Eastern</td>
<td>2</td>
<td>0.6</td>
</tr>
<tr>
<td>Native Hawaiian or other Pacific Islander</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>White</td>
<td>258</td>
<td>80.4</td>
</tr>
<tr>
<td>Two or more</td>
<td>11</td>
<td>3.4</td>
</tr>
<tr>
<td>Prefer not to answer</td>
<td>6</td>
<td>1.9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Residency</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>In-state (SC)</td>
<td>180</td>
<td>55.9</td>
</tr>
<tr>
<td>Out of State</td>
<td>142</td>
<td>44.1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Highest Level of Education of Parents</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than a high school diploma</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>High school diploma or GED</td>
<td>19</td>
<td>5.9</td>
</tr>
<tr>
<td>Some college, no degree</td>
<td>50</td>
<td>15.5</td>
</tr>
<tr>
<td>Associates Degree</td>
<td>14</td>
<td>4.3</td>
</tr>
<tr>
<td>Bachelor's Degree</td>
<td>105</td>
<td>32.6</td>
</tr>
<tr>
<td>Master's Degree</td>
<td>80</td>
<td>24.8</td>
</tr>
<tr>
<td>Professional Degree</td>
<td>22</td>
<td>6.8</td>
</tr>
<tr>
<td>Doctorate</td>
<td>30</td>
<td>9.3</td>
</tr>
<tr>
<td>Don’t know</td>
<td>1</td>
<td>0.3</td>
</tr>
<tr>
<td>Prefer not to answer</td>
<td>1</td>
<td>0.3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year in College</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman</td>
<td>50</td>
<td>15.5</td>
</tr>
<tr>
<td>Sophomore</td>
<td>93</td>
<td>28.9</td>
</tr>
<tr>
<td>Junior</td>
<td>79</td>
<td>24.5</td>
</tr>
<tr>
<td>Senior</td>
<td>84</td>
<td>26.1</td>
</tr>
<tr>
<td>5th year</td>
<td>6</td>
<td>1.9</td>
</tr>
<tr>
<td>6th year or later</td>
<td>5</td>
<td>1.6</td>
</tr>
<tr>
<td>Not currently enrolled in college</td>
<td>5</td>
<td>1.6</td>
</tr>
</tbody>
</table>

| Age                                             | 312   | 20.25 (2.36) |

|
Visitation Characteristics

As shown in Table 3, respondents who were visitors made up over three quarters (78.8%) of all respondents. Over a third of all visitors (33.8%) had visited NPS sites more than 10 times. The majority of visitors had visited an NPS site for the first time before college (87.9%), with almost half (48.4%) visiting during their childhood (between ages 6 and 12).

Table 3
Visitation Characteristics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visitation</td>
<td>457</td>
<td></td>
</tr>
<tr>
<td>Visitors</td>
<td>360</td>
<td>78.8</td>
</tr>
<tr>
<td>Non-Visitors</td>
<td>97</td>
<td>21.2</td>
</tr>
<tr>
<td>Number of NPS visits</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>3</td>
<td>0.8</td>
</tr>
<tr>
<td>1</td>
<td>30</td>
<td>8.4</td>
</tr>
<tr>
<td>2</td>
<td>36</td>
<td>10.1</td>
</tr>
<tr>
<td>3</td>
<td>33</td>
<td>9.2</td>
</tr>
<tr>
<td>4</td>
<td>40</td>
<td>11.2</td>
</tr>
<tr>
<td>5</td>
<td>39</td>
<td>10.9</td>
</tr>
<tr>
<td>6</td>
<td>18</td>
<td>5.0</td>
</tr>
<tr>
<td>7</td>
<td>17</td>
<td>4.7</td>
</tr>
<tr>
<td>8</td>
<td>9</td>
<td>2.5</td>
</tr>
<tr>
<td>9</td>
<td>2</td>
<td>0.6</td>
</tr>
<tr>
<td>10</td>
<td>10</td>
<td>2.8</td>
</tr>
<tr>
<td>11 or more</td>
<td>121</td>
<td>33.8</td>
</tr>
<tr>
<td>First NPS visit occurred in college?</td>
<td>355</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>43</td>
<td>12.1</td>
</tr>
<tr>
<td>No</td>
<td>312</td>
<td>87.9</td>
</tr>
<tr>
<td>Life Stage of First Visit</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Early Childhood (0-5)</td>
<td>101</td>
<td>32.4</td>
</tr>
<tr>
<td>Characteristics</td>
<td>N</td>
<td>M (SD)</td>
</tr>
<tr>
<td>---------------------</td>
<td>-----</td>
<td>----------</td>
</tr>
<tr>
<td>Nature</td>
<td>361</td>
<td>4.49 (0.72)</td>
</tr>
<tr>
<td>Vacation</td>
<td>361</td>
<td>3.95 (1.11)</td>
</tr>
<tr>
<td>Wildlife</td>
<td>361</td>
<td>3.92 (0.99)</td>
</tr>
<tr>
<td>Novelty</td>
<td>361</td>
<td>3.91 (1.12)</td>
</tr>
<tr>
<td>Exercise</td>
<td>361</td>
<td>3.73 (1.00)</td>
</tr>
<tr>
<td>Recreation</td>
<td>357</td>
<td>3.69 (1.20)</td>
</tr>
<tr>
<td>Environment</td>
<td>359</td>
<td>3.50 (1.07)</td>
</tr>
<tr>
<td>History</td>
<td>361</td>
<td>3.44 (1.09)</td>
</tr>
<tr>
<td>Culture</td>
<td>360</td>
<td>3.42 (1.04)</td>
</tr>
<tr>
<td>Cost</td>
<td>361</td>
<td>3.28 (1.14)</td>
</tr>
<tr>
<td>Solitude</td>
<td>360</td>
<td>3.23 (1.06)</td>
</tr>
<tr>
<td>Distance</td>
<td>360</td>
<td>2.88 (1.28)</td>
</tr>
<tr>
<td>Spiritual</td>
<td>358</td>
<td>2.60 (1.25)</td>
</tr>
<tr>
<td>Volunteering</td>
<td>359</td>
<td>2.28 (0.93)</td>
</tr>
</tbody>
</table>

In Table 3, participants were asked to measure their level of agreement to the given statement on a Likert scale from 1 to 5, with 1 representing strongly disagree and 5 representing strongly agree.
**Constraints to Visitation**

Table 5 displays respondents’ ratings of constraints to visitation. The highest average agreement was with the constraint of lack of time (M=3.29, s.d.=1.18). The next highest was the constraint of lack of knowledge at 3.22 (s.d.=1.19). Also, the lowest average agreement was with lack of resources in my native language (M=1.49, s.d.=0.77). The next least agreed with constraint was lack of interest at 1.60 (s.d.=0.83). In examining Tables 4 and 5, there was a stronger level of agreement overall with the motivations listed in the survey than the constraints.

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>N</th>
<th>M (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of Time</td>
<td>338</td>
<td>3.29 (1.18)</td>
</tr>
<tr>
<td>Lack of Knowledge</td>
<td>338</td>
<td>3.22 (1.19)</td>
</tr>
<tr>
<td>Distance</td>
<td>338</td>
<td>3.05 (1.16)</td>
</tr>
<tr>
<td>Food and Lodging Cost</td>
<td>337</td>
<td>2.99 (0.92)</td>
</tr>
<tr>
<td>Lack of Accessibility</td>
<td>339</td>
<td>2.74 (0.93)</td>
</tr>
<tr>
<td>Entrance Cost</td>
<td>338</td>
<td>2.57 (0.88)</td>
</tr>
<tr>
<td>Too Crowded</td>
<td>339</td>
<td>2.50 (0.88)</td>
</tr>
<tr>
<td>No One to Visit With</td>
<td>339</td>
<td>2.25 (1.09)</td>
</tr>
<tr>
<td>No History of Visitation</td>
<td>340</td>
<td>2.16 (1.37)</td>
</tr>
<tr>
<td>Lack of Information</td>
<td>338</td>
<td>2.06 (0.90)</td>
</tr>
<tr>
<td>Poor Service</td>
<td>339</td>
<td>1.97 (0.76)</td>
</tr>
<tr>
<td>Safety</td>
<td>339</td>
<td>1.88 (0.85)</td>
</tr>
<tr>
<td>Unpleasant Place to Be</td>
<td>339</td>
<td>1.65 (0.75)</td>
</tr>
<tr>
<td>Lack of Sense of Belonging</td>
<td>336</td>
<td>1.62 (0.76)</td>
</tr>
<tr>
<td>Lack of Interest</td>
<td>339</td>
<td>1.60 (0.83)</td>
</tr>
<tr>
<td>Lack of Resources in Native Language</td>
<td>338</td>
<td>1.49 (0.77)</td>
</tr>
</tbody>
</table>

Participants were asked to rate their level of agreement with each motivation on a scale ranging from 1 (strongly disagree) to 5 (strongly agree).
Other Possible Factors Related to Visitation

The survey also captured other factors which might influence one’s visitation (Table 6). The highest average agreement with a response was with the concern of preserving nature for future generations (M=4.49, s.d.=0.73). The next highest was agreement with the statement that their parents had tried to incorporate nature into their lives as a child (M=3.95, s.d.=0.99). The lowest average agreement was with the statement of “I prefer to spend time doing indoor activities”, with a mean response of 2.57 (s.d.=1.07), followed next by both the ability to take vacation time and attendance at a meeting of an organization specifically concerned with bettering the environment at 3.13 (s.d.=1.31). Additionally, participants had on average 7.61 (s.d.=3.11) hours of daily screen time.

Table 6
Other Possible Factors Related to Visitation

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>N</th>
<th>M (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concerned with preserving nature for future generations</td>
<td>327</td>
<td>4.49 (0.73)</td>
</tr>
<tr>
<td>Incorporate nature into their life as a child</td>
<td>325</td>
<td>3.95 (0.99)</td>
</tr>
<tr>
<td>Parent’s value nature</td>
<td>327</td>
<td>3.91 (0.94)</td>
</tr>
<tr>
<td>Plan to visit within the next 12 months</td>
<td>360</td>
<td>3.89 (1.11)</td>
</tr>
<tr>
<td>Buy products in recycled containers</td>
<td>326</td>
<td>3.63 (1.08)</td>
</tr>
<tr>
<td>Switched products for ecological reasons</td>
<td>326</td>
<td>3.60 (1.12)</td>
</tr>
<tr>
<td>Attended a meeting of an organization specifically concerned with bettering the environment</td>
<td>327</td>
<td>3.13 (1.35)</td>
</tr>
<tr>
<td>Ability to take vacation time</td>
<td>326</td>
<td>3.13 (1.31)</td>
</tr>
<tr>
<td>Prefer indoor activities</td>
<td>327</td>
<td>2.57 (1.07)</td>
</tr>
<tr>
<td>Daily screen time</td>
<td>318</td>
<td>7.61 (3.11)</td>
</tr>
</tbody>
</table>

Participants were asked to rate their level of agreement with each motivation statement on a scale ranging from 1 (strongly disagree) to 5 (strongly agree). The only characteristic not measured on this scale in Table 5 was that of daily screen time, where participants were asked to select the number of hours they spent on a screen each day, with values ranging from 0-24.
**General Vacation Motives**

Table 7 presents data on motivations for vacation in general, not just NPS visitation. The highest average agreement was with the motivator of adventure (M=4.37, s.d.=0.74). The next highest motivator was relaxation (M=4.33, s.d.=0.71). Conversely, the lowest average agreement was with solitude (M=3.02, s.d.=1.18), followed by novelty (M=3.34, s.d.=0.99).

<table>
<thead>
<tr>
<th>Motivation</th>
<th>N</th>
<th>M (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adventure</td>
<td>323</td>
<td>4.37 (0.74)</td>
</tr>
<tr>
<td>Relaxation</td>
<td>323</td>
<td>4.33 (0.71)</td>
</tr>
<tr>
<td>Seeing friends/family</td>
<td>324</td>
<td>4.13 (0.94)</td>
</tr>
<tr>
<td>Nature</td>
<td>323</td>
<td>4.07 (0.88)</td>
</tr>
<tr>
<td>Cultural</td>
<td>323</td>
<td>3.50 (1.01)</td>
</tr>
<tr>
<td>Novelty</td>
<td>322</td>
<td>3.34 (0.99)</td>
</tr>
<tr>
<td>Solitude</td>
<td>323</td>
<td>3.02 (1.18)</td>
</tr>
</tbody>
</table>

Participants were asked to rate their level of agreement with each motivation on a scale ranging from 1 (strongly disagree) to 5 (strongly agree).

**Differences in Motivations for NPS Visitation by Race/Ethnicity**

Table 8 shows motivations for NPS visitation separated by race/ethnicity. There were multiple motivations for which the differences between Non-Hispanic White and racial/ethnic minority were significantly different. For example, Non-Hispanic White (M=3.78, s.d.=1.18) participants reported significantly higher ratings (F=5.240, p=0.023) than racial/ethnic minority respondents (M=3.38, s.d.=1.25) for the motivation of vacation. Additionally, Non-Hispanic White (M=3.00, s.d.=1.26) participants were significantly (F=5.218, p=0.023) more likely to agree with the motivation of distance, indicating that they lived near a NPS site, than
racial/ethnic minority (M=2.54, s.d.=1.28). Another motivation where Non-Hispanic White participants (M=3.40, s.d.=1.13) reported a higher-level agreement (F=5.012, p=0.026) was with that of cost, in reference to the cost-effectiveness of visiting an NPS site, in comparison to racial/ethnic minority (M=3.05, s.d.=1.12).

Table 8
Differences in Motivations for NPS Visitation between Non-Hispanic White and Racial/Ethnic Minority Participants

<table>
<thead>
<tr>
<th>Motivation</th>
<th>Total</th>
<th>Non-Hispanic White</th>
<th>Racial/Ethnic Minority</th>
<th>Unadjusted</th>
<th>Adjusted</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>M (SD)</td>
<td>N</td>
<td>M (SD)</td>
<td>t</td>
</tr>
<tr>
<td>Nature</td>
<td>361</td>
<td>4.49 (0.72)</td>
<td>247</td>
<td>4.53 (0.66)</td>
<td>-1.851</td>
</tr>
<tr>
<td>Vacation</td>
<td>361</td>
<td>3.95 (1.11)</td>
<td>246</td>
<td>3.78 (1.18)</td>
<td>-2.56</td>
</tr>
<tr>
<td>Wildlife</td>
<td>361</td>
<td>3.92 (0.99)</td>
<td>247</td>
<td>3.94 (0.96)</td>
<td>-0.365</td>
</tr>
<tr>
<td>Novelty</td>
<td>361</td>
<td>3.91 (1.12)</td>
<td>247</td>
<td>3.98 (1.05)</td>
<td>-1.078</td>
</tr>
<tr>
<td>Exercise</td>
<td>361</td>
<td>3.73 (1.00)</td>
<td>247</td>
<td>3.78 (0.98)</td>
<td>-1.354</td>
</tr>
<tr>
<td>Recreation</td>
<td>357</td>
<td>3.69 (1.20)</td>
<td>248</td>
<td>4.02 (1.06)</td>
<td>-2.14</td>
</tr>
<tr>
<td>Environment</td>
<td>359</td>
<td>3.50 (1.07)</td>
<td>248</td>
<td>3.48 (1.06)</td>
<td>0.258</td>
</tr>
<tr>
<td>History</td>
<td>361</td>
<td>3.44 (1.09)</td>
<td>247</td>
<td>3.45 (1.07)</td>
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</tr>
<tr>
<td>Culture</td>
<td>360</td>
<td>3.42 (1.04)</td>
<td>247</td>
<td>3.46 (1.02)</td>
<td>-0.656</td>
</tr>
<tr>
<td></td>
<td>Cost</td>
<td>Solitude</td>
<td>Distance</td>
<td>Spiritual</td>
<td>Volunteering</td>
</tr>
<tr>
<td>----------------</td>
<td>------------</td>
<td>------------</td>
<td>------------</td>
<td>------------</td>
<td>--------------</td>
</tr>
<tr>
<td>NPS Visitation</td>
<td>361</td>
<td>360</td>
<td>360</td>
<td>358</td>
<td>359</td>
</tr>
<tr>
<td></td>
<td>3.28 (1.14)</td>
<td>3.23 (1.06)</td>
<td>2.88 (1.28)</td>
<td>2.60 (1.25)</td>
<td>2.28 (0.93)</td>
</tr>
<tr>
<td></td>
<td>248</td>
<td>247</td>
<td>246</td>
<td>247</td>
<td>247</td>
</tr>
<tr>
<td></td>
<td>3.40 (1.13)</td>
<td>3.23 (1.04)</td>
<td>3.00 (1.26)</td>
<td>2.57 (1.25)</td>
<td>2.25 (0.90)</td>
</tr>
<tr>
<td></td>
<td>74</td>
<td>73</td>
<td>74</td>
<td>73</td>
<td>72</td>
</tr>
<tr>
<td></td>
<td>3.05 (1.12)</td>
<td>3.33 (1.09)</td>
<td>2.54 (1.28)</td>
<td>2.70 (1.24)</td>
<td>2.51 (1.01)</td>
</tr>
<tr>
<td></td>
<td>-2.315</td>
<td>0.672</td>
<td>-2.719</td>
<td>0.768</td>
<td>2.152</td>
</tr>
<tr>
<td></td>
<td>0.021</td>
<td>0.502</td>
<td>0.007</td>
<td>0.443</td>
<td>0.032</td>
</tr>
<tr>
<td></td>
<td><strong>5.012</strong></td>
<td><strong>0.645</strong></td>
<td><strong>5.218</strong></td>
<td><strong>0.335</strong></td>
<td><strong>2.187</strong></td>
</tr>
<tr>
<td></td>
<td><strong>0.026</strong></td>
<td><strong>0.423</strong></td>
<td><strong>0.023</strong></td>
<td><strong>0.563</strong></td>
<td><strong>1.40</strong></td>
</tr>
</tbody>
</table>

**Differences in Constraints for NPS Visitation by Race/Ethnicity**

Table 9 shows ratings of constraints separated by Non-Hispanic White and racial/ethnic minority participants. There are multiple constraints in which the differences between Non-Hispanic White and racial/ethnic minority participants are significant. For example, racial/ethnic minority (M=1.74, s.d.=0.85) participants reported significantly higher ratings (F=7.468, p=0.007) than Non-Hispanic White respondents (M=1.41, s.d.=0.74) for the constraint of lack of resources in their native language. Additionally, racial/ethnic minority (M=1.90, s.d.=0.92) was significantly (F=7.240, p=0.008) more likely to agree with the constraint of lack of a sense of belonging than Non-Hispanic White (M=1.54, s.d.=0.74). Another constraint where racial/ethnic minority (M=1.85, s.d.=0.95) reported a higher-level agreement (F=6.139, p=0.014) was with lack of interest, in comparison to Non-Hispanic White (M=1.52, s.d.=0.77). Racial/ethnic minority (M=1.86, s.d.=0.76) also had a stronger level of agreement (F=5.004, p=0.026) with the constraint of NPS sites being an unpleasant place for one to be than Non-Hispanic White (M=1.58, s.d.=0.73).
There were also several constraints for which the difference between White and minority participants approached statistical significance. Racial/ethnic minority respondents (M=2.59, s.d.=1.51) had a stronger level of agreement (F=3.632, p=0.058) with the constraint of lack of visitation history in comparison with Non-Hispanic White participants (M=2.02, s.d.=1.31). Additionally, racial/ethnic minority respondents (M=2.16, s.d.=0.79) had a stronger level of agreement (F=3.253, p=0.072) with the constraint of poor service in comparison with Non-Hispanic White participants (M=1.92, s.d.=0.75).

Table 9
Differences in Constraints for Visitation between Non-Hispanic White and Racial/Ethnic Minority Participants

<table>
<thead>
<tr>
<th>Constraint</th>
<th>Total</th>
<th>Non-Hispanic White</th>
<th>Racial/Ethnic Minority</th>
<th>Unadjusted</th>
<th>Adjusted</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>M (SD)</td>
<td>N</td>
<td>M (SD)</td>
<td>t</td>
</tr>
<tr>
<td>Lack of Time</td>
<td>338</td>
<td>3.29 (1.18)</td>
<td>247</td>
<td>3.27 (1.18)</td>
<td>74</td>
</tr>
<tr>
<td>Lack of Knowledge</td>
<td>338</td>
<td>3.22 (1.19)</td>
<td>247</td>
<td>3.13 (1.61)</td>
<td>74</td>
</tr>
<tr>
<td>Distance</td>
<td>338</td>
<td>3.05 (1.16)</td>
<td>248</td>
<td>3.00 (1.15)</td>
<td>73</td>
</tr>
<tr>
<td>Food and Lodging Cost</td>
<td>337</td>
<td>2.99 (0.92)</td>
<td>247</td>
<td>2.96 (0.89)</td>
<td>74</td>
</tr>
<tr>
<td>Lack of Accessibility</td>
<td>339</td>
<td>2.74 (0.93)</td>
<td>248</td>
<td>2.75 (0.93)</td>
<td>74</td>
</tr>
<tr>
<td>Entrance Cost</td>
<td>338</td>
<td>2.57 (0.88)</td>
<td>247</td>
<td>2.51 (0.87)</td>
<td>74</td>
</tr>
<tr>
<td>Too Crowded</td>
<td>339</td>
<td>2.50 (0.88)</td>
<td>248</td>
<td>2.50 (0.90)</td>
<td>74</td>
</tr>
</tbody>
</table>
Participants were also asked to write in their own suggestions for what the NPS could do to increase visitation. Of the 197 responses, 66 contained answers related to advertising, publicity, or promotion. Among these responses were suggestions to “use social media to appeal to younger people” and “reach out to underserved communities and make it known that the Parks are a place for them and that there is stuff for them to do.” Twenty-eight responses mentioned wanting more information about what parks had to offer or what they should do once inside the park. Twenty-three responses mentioned reducing cost, with six stating that student discounts would be useful to increase visitation by college students. One also mentioned that “outdoor
activities are primarily focused on White families with the ability to purchase expensive outdoor equipment - the NPS should shift the focus away from the demographic.” Nineteen mentioned accessibility and safety, with suggestions of shuttle services to provide access to those who live close to a park but may not be able to get there on their own. Fifteen cited maintenance, with respect to keeping trails well maintained. Fifteen also cited their preference for not having too many man-made interventions so that the natural beauty could be preserved. Five mentioned educational events, such as “to attract younger kids and parents; have a day 'camp' where park rangers have some type of activities planned for little kids to learn about the pertaining park.” It was also mentioned that college students would like to see programs targeted towards them, such as volunteer and research opportunities.
DISCUSSION

Discussion of Findings

Through this study, we identified both motivations and constraints to NPS visitation for young adults as a whole, as well as differences in these motivations and constraints between racial/ethnic groups. In doing so, this study advanced past research, which has traditionally focused on the U.S. population as a whole, while not considering specific demographic subgroups. This study also included data from non-visitors, which is significant as many similar studies only collect information from visitors to parks or outdoor areas. With data from non-visitors, we are able to gain insight into information about the group of people that should be targeted with the results of this study.

Certain motivations and constraints were more salient among the young adults surveyed. For example, one of the main motivators for young adults was nature. This makes sense because the study had participants from UofSC, which is an urban campus. Vacation was also a strong motivator for participants. This might be due to college students wanting to have a break from their academic obligations. Further, our study found that cost was one of the main constraints for young adults. This makes sense because most college students do not have a very large disposable income and thus would want to make sure that when they are using it for a vacation, it is being used well. Additionally, constraints of lack of time and knowledge were rated highly. A lack of time might occur due to the fact that many college students are enrolled full time during the school year and are employed during the summer, leaving little time for vacations in general. A lack of knowledge may be related to vacation planning as a whole since many college students have never had the opportunity to plan their own vacations.
Additionally, we observed significant differences in regard to motivations and constraints between Non-Hispanic Whites and racial/ethnic minorities. The motivations that were rated differently included vacation and distance (which refers to close proximity), with both of these motivations agreed with more by those belonging to the Non-Hispanic White group. This may be due to the fact that Whites have traditionally had a higher level of visitation history, which means they might have a strong association between NPS sites and vacation. Non-Hispanic Whites might also have a stronger level of agreement with proximity as many NPS sites are located in rural areas, which have a higher concentration of Non-Hispanic White residents (USDA, 2020). Some of the main constraints cited were a lack of sense of belonging, lack of interest, lack of visitation history, and NPS units being an unpleasant place to be. For these constraints, there was a higher level of agreement by racial/ethnic minority participants. These might all stem from the discrimination experienced by racial/ethnic minorities at NPS sites in the past. Additionally, it might be attributed to the ethnicity hypothesis, which explains possible differences in leisure activities among different racial/ethnic groups (Floyd & Stodolska, 2014) or White racial frame, which is central to institutional bias (Feagin, 2013). As we get further away from time periods where this was normalized, hopefully there will be fewer negative feelings towards NPS sites among members of racial/ethnic minority groups.

Study Implications

This study has several implications. To begin, our research can help the NPS understand motivations and constraints for younger visitors and what can be used to attract these visitors to NPS sites, especially as young adults begin to develop their own vacation habits, outside of the influence of their parents. Additionally, our data showed how these motivations and constraints
vary for racial/ethnic groups. Currently, Non-Hispanic Whites seem to be more motivated to visit NPS sites, while racial/ethnic minorities have more constraints to their visitation. Looking at both the motivations and constraints for both young adults as a whole, as well as race/ethnicity groups will allow the NPS to develop strategies for how to increase their visitation for the future, since our population will soon become more diverse. Thus, it is important that the NPS strives to increase the motivations while minimizing these constraints so that young adults are motivated to visit NPS sites.

One motivation strongly agreed with by participants was that of nature. Approximately 80% of the United States population lives outside of rural areas (American Community Survey: 2011-2015, 2016). Thus, for the majority of our study participants, they grew up far away from nature, which might heighten their desire to visit a place centered around nature. Additionally, children today spend the least amount of time outdoors, in comparison to past generations (Children in Nature: Improving Health by Reconnecting Youth with the Outdoors, n.d.). This may also lead to a heightened desire to spend time in nature now that a person is old enough to make their own choices regarding their vacation habits. We also saw that study participants spent an average of almost 8 hours per day on a screen. This significant amount of time might also contribute to the desire to seek out time in nature. Thus, it is important that the NPS markets their sites as places to escape from technology and urban areas. Additionally, further research is needed to explore to see if there is a link between technology and motivations to visit NPS sites, as we continue to exist in an increasingly technological world.

One constraint cited frequently by participants was that of cost and how a reduction in cost would help increase their ability to visit NPS sites. One thing that the NPS could do to
combat this, and also to promote visitation by young adults, would be to offer student discounts on entrance fees, as well as collaborating with hotels in the area to provide deals for these students on lodging, as these can be the two most expensive costs when visiting an NPS site. While not all NPS sites charge an entrance fee, those that do charge around $30 per car for a one-week pass (United States, 2021). While costs related to lodging vary greatly depending on the area surrounding an NPS site, at popular locations such as Yellowstone, the cheapest lodging runs over $100 per night (How Much Does A Trip To Yellowstone Cost?, 2019). Additionally, the NPS currently offers free admission for fourth graders and their families for the year that they are in fourth grade. It might be prudent to offer a similar deal for another age range (e.g., college students). The NPS could also offer a discount for residents who live close to an NPS site, especially where the surrounding community is comprised of diverse groups so that they can create a stronger community bond with the site as well as diversifying its visitation.

Participants, when asked to give their own suggestions for the NPS, also noted that they felt that the NPS should work to provide more educational opportunities. It is also important to create programs in parks that are close to diverse populations to promote outreach. Currently, Saguaro National Park has a program where they have young, diverse temporary workers who work in both the park and the surrounding community. They visit local schools and community gatherings to teach about Saguaro and interact with populations who might not be able to go to the park on their own. This also allows for interaction with the youth to inform them about the NPS and what they could possibly do in the future (Rott, 2016). In addition to this, Cuyahoga Valley National Park is working with African American community leaders to learn how they can create an effective outreach program to increase visitation by this group (NPS Visitation
It is important that the NPS works to create initiatives and programs geared toward America’s youth and young adults, especially those from racial/ethnic minority backgrounds as this will allow them to establish a long-term relationship with the park. Not only is it important to reach out to these programs, it is also important to make connections with adult education groups, as they will ultimately be the ones to facilitate visitation by their children (Gaither et al., 2015; Johnson et al., 1997). Other NPS units should look to these examples of educational opportunities and find ways to incorporate them to their own park or as part of their community outreach.

Another frequently mentioned suggestion in our survey was to increase the availability of information for potential visitors, mentioned in 28 of the fill-in-the-blank responses. For this to happen, technology will likely play a crucial role for the future of the National Park Service. One idea suggested is that the NPS use virtual reality to show visitors what sites looked like in the past and how they have changed over time. This technology would also be useful during times of the year when parts of the park are not accessible due to weather or other public restrictions (e.g., pandemics). The NPS would then be able to use this to show visitors what it would look like if they were able to visit (Gramann, 2003). During the COVID-19 pandemic, the NPS created virtual visits that include live webcams, video and photo tours, and audio programs (United States, n.d.). Transportation and cost have been highlighted as a great constraint to visitation and providing these experiences that can be accessed from anywhere in the world will allow the NPS to increase their visibility in places where they might not otherwise be able to reach.

Another simple technology change would be to update the NPS website, and the websites for all of the sites, to include a welcome message that shows that the NPS is welcoming of all
people. Although this may seem simple, it is a way to directly reinforce this idea. These websites can also allow opportunities for visitors from diverse backgrounds to upload personal stories about their visit and how it impacted them. This will allow those potential visitors who may be hesitant to visit the park the opportunity to hear from people of their same background. Additionally, an updated website will allow easier access to information for potential visitors about how they should allocate their time and what preparations should be made prior to visiting. This will also increase accessibility to information, which will generate more interest in NPS units.

In our study, almost one third of the fill-in-the-blank responses cited something related to advertisement, publicity, or promotion. This is in line with a study by Taylor et al. (2011), where respondents stated that they believed that the best thing that the NPS could do to increase visitation would be to advertise and publicize more (suggested by 41.5% of the respondents). Our respondents stated that they wished that the NPS would do more in regard to their social media usage, as well as advertise in underserved communities so that they are aware of the services the NPS has to offer.

One motivation where there was a difference between Non-Hispanic Whites and racial/ethnic minorities was the issue of cost. Non-Hispanic Whites have a strong level of agreement with cost being a motivator for visiting NPS sites, indicating that they feel that, for them, visiting a NPS site is cost-effective. This may be due to the fact that when looking at the wealth held in the United States, the typical White family has eight times the wealth of the typical Black family and five times the wealth of the typical Hispanic family (Bhutta et al., 2020). This wealth gap makes it easier for Non-Hispanic White families to justify the cost of
visiting NPS sites and makes the cost small relative to their net worth, something that might not be the case for the typical racial/ethnic minority family.

One constraint where our study identified a strong gap between Non-Hispanic Whites and racial/ethnic minorities was a lack of resources in one’s native language. One relatively simple change would be to have signs/resources in languages other than English. This transition to multilingual signage will be easily facilitated with available technology. Rangers could pre-record talks and have them translated into multiple languages to have available to visitors. Additionally, with the increase in the number of people who have smartphones, the NPS can create digital brochures and information guides available in multiple languages for visitors. In the past, the NPS has worked with translation companies to create signage in Spanish for the Carlsbad Caverns National Park. This collaboration allowed the translator to create a glossary with relevant terms to be used throughout the park (Bilingual Signage for the National Park Service, n.d.). Other NPS sites should do the same in order to have the ability to communicate their park’s unique history and nature to others. This will help encourage more diverse visitation because it will allow those who do not have a strong grasp on English, who may be more likely to be racial/ethnic minorities, to still get the same educational experience in the park as someone whose native language is English.

Another group of related constraints rated more highly by members of racial/ethnic minorities was that of a lack of sense of belonging, NPS sites being an unpleasant place to be, and poor service by NPS employees. The solution to these constraints can all likely be addressed with changes to the workforce and training of NPS employees. The NPS needs to work on more diversity in their workforce as approximately 80% of their employees are White (Partnership for
Public Service, 2018). This may be a challenging thing to do when fewer than 15% of students studying natural resources in college are racially diverse (Sharik et al., 2015). However, racial/ethnic minorities may feel a heightened sense of not belonging when none of the employees look like them; thus, it is important to diversify the NPS workforce. Additionally, the NPS also needs to make sure that their employees are creating a warm and welcoming space for all visitors so that they feel that they belong and are safe in these places (Santucci et al., 2014). This could be done with racial bias training, as well as making sure that this idea is reinforced in their social media and advertising. There also needs to be a change in culture within the employees of the NPS. While the majority have embraced this idea, it is also important for them to know how to interact with diverse groups and provide them with the information that they are seeking. This can be accomplished via training sessions that help staff work to identify these different types of visitors and compile the necessary resources to ensure that they have the experience that they are looking for. This will help to combat the constraint of NPS sites being an unpleasant place to be, as well as the constraint of poor service by NPS employees.

Other constraints that were highlighted as being more impactful for racial/ethnic minorities were lack of visitation history and lack of interest. These may be tied with each other because when there is a lack of visitation history, there can be a lack of interest due to the lack of exposure. To address this issue, the NPS could increase the number of “culturally relevant” interpretations in order to connect with racial/ethnic minority groups (NPS Visitation Trends, 2006). It has been shown that people from racial/ethnic minority backgrounds are far more likely to visit sites that relate to their own history and heritage (Weber & Sultana, 2013). It is also important to not only create these culturally relevant sites where they seem obvious, but also to
work to include these cultural connections in the parks that already exist with interpretive services (*NPS Visitation Trends*, 2006). This might end up being the most challenging solution for the NPS as it can tend to be the most political. Whites have gotten used to these spaces being their spaces and might not welcome this push for inclusion from the NPS. Therefore, the NPS will need the support of powerful allies in order to make this change in the future (Scott & Lee, 2018). Additionally, a study by Taylor et al. (2011) reported that 84% of visitors strongly or somewhat disagreed with the statement “My children are not interested in visiting National Park System units,”, compared to 76% of non-visitors. This shows the importance of encouraging visitation to NPS sites by families, as it will help children be exposed from a young age and hopefully encourage them to visit when they are adults.

*Study Limitations*

Our study had several limitations that should be noted. The first was that participants were all students from one university, which happens to be located very close to a National Park. This might have increased our population’s familiarity with NPS sites to greater than what would be expected of the average college-based study. Thus, studies of young adults in the future should try to conduct research across multiple universities, each located varying distances from NPS units. Additionally, we were limited by a lack of diversity in our sample. Approximately 80% of our sample was White, which led to having to condense all racial/ethnic minorities into one group, instead of being able to consider them all individually and to note differences among specific racial/ethnic minority groups. Future studies should try to obtain a large enough sample size so that these individual comparisons can be made. We also had an overwhelming number of females (79.8%) fill out the survey, as well as a large number of NPS visitors (78.8%). In future
studies, it would be beneficial to have these proportions close to the numbers seen for the entire U.S. population. Finally, our study examined a substantial number of motivations (13) and constraints (16), but it is possible that additional factors not considered here may encourage or limit NPS visitation among young adults or specific racial/ethnic groups.

Conclusion

In summary, differences can be seen between Non-Hispanic Whites and racial/ethnic minorities with respect to motivations and constraints to visitation to NPS sites. It is critical that the NPS understand these differences in motivations and constraints and identifies ways to address them in order to diversify its visitation, which will be critical to their long-term success as the United States population continues to become more demographically diverse. The NPS also needs to recognize the difference in motivations and constraints for young adults, in comparison to older generations, so that they can attract these visitors, since they are also the future of the NPS. By increasing visitation, the NPS can help justify greater government budget allocations since they will be showing that their work is important to the American people. Increasing visitation among young adults and racial/ethnic minorities will help the NPS have long-term success with preserving the natural resources and culture of the United States.
BIBLIOGRAPHY

   https://www.sc.edu/about/offices_and_divisions/institutional_research_assessment_and_analytics/enrollment_data/2020_enrollment_data.php

   https://www.outsideonline.com/2296666/new-notion-nature


Demographics. (2020). University of South Carolina. https://www.sc.edu/about/offices_and_divisions/diversity_equity_and_inclusion/diversity_datademographics/index.php


Pickering, C., & Byrne, J. (2014). The benefit of publishing systematic quantitative literature


https://www.nps.gov/subjects/npscelebrates/find-your-virtual-park.htm


USDA. (2020, October 13). *Racial and ethnic minorities made up about 22 percent of the rural population in 2018, compared to 43 percent in urban areas* [Government]. USDA ERA. https://www.ers.usda.gov/data-products/chart-gallery/gallery/chart-detail/?chartId=99538


Survey Questions

Email Version:

Motivations and Constraints among Young Adults regarding Visitation to National Park System Units

Hi,

My name is Julia Sultz and I am a senior undergraduate student in the Honors College at the University of South Carolina. I’m currently working on my senior thesis which is focused on visitation to sites in the National Park System by young adults. This research is supervised by Dr. Andrew Kaczynski in the Arnold School of Public Health. Our goal with this survey is to better understand visitation patterns and motivations and offer suggestions for how the National Park Service can increase visitation by underrepresented groups. We are interested in collecting data from both visitors and non-visitors of the National Park System; thus, previous experience with the National Park System is not required. We are also particularly interested in the views of young adults from diverse socioeconomic and racial/ethnic backgrounds.
The survey will take approximately 10 minutes to complete. As a thank you for your time and effort, upon survey completion, you will have the opportunity to be entered in a raffle to win one of four $25 Amazon gift cards.

To begin the survey, please click here:

https://redcap.healthsciencessc.org/surveys/?s=9L38KYRAPC
Motivations and Constraints among Young Adults regarding Visitation to National Park System Units

You are being asked to volunteer for a research study conducted by Julia Sultz. I am a senior undergraduate student in the Honors College at the University of South Carolina. This research is supervised by Dr. Andrew Kaczynski in the Arnold School of Public Health. The purpose of this study is to understand factors which influence visitation to sites in the National Park System by young adults and offer suggestions for how the National Park Service can increase visitation by underrepresented groups.

You are being asked to participate in this study because you are a part of the University of South Carolina undergraduate community. We are interested in collecting data from both visitors and non-visitors of the National Park System; thus, previous experience with the National Park System is not required. If you agree to participate, you will be asked to complete a survey about your experience with visitation to sites in the National Park System. The survey will take approximately 10 minutes to complete. Taking part in this study is not likely to benefit you personally. However, this research will help us better understand the motivations and constraints which impact visitation to the National Park System and will allow us to make recommendations on how to increase visitation by various groups. There are no substantial risks to participating and all information you provide will remain anonymous. You may choose not to answer any
questions or to withdraw from the survey at any time. This study has been approved by the University of South Carolina Institutional Review Board. Any questions or concerns can be directed to Lisa M. Johnson, IRB Manager at lisaj@mailbox.sc.edu or to Dr. Kaczynski at atkaczyn@mailbox.sc.edu.

As a thank you for your time and effort, upon survey completion, you will have the opportunity to be entered in a raffle to win one of four $25 Amazon gift cards.

To begin the survey, please click here:
In this section, we wish to learn more about your familiarity with the National Park System. Please provide the response that best represents you.

The National Park System consists of all the units managed by the National Park Service, including national parks, national historic and cultural sites, and national monuments.

Q1: Have you ever, in your lifetime, visited a national park, national historic or cultural site, national monument, or other unit managed by the National Park Service?
   o Yes
   o No

Q2: How many times during your life have you visited a unit of the National Park System?
   o 0
   o 1
   o 2
   o 3
   o 4
   o 5
   o 6
   o 7
   o 8
   o 9
   o 10
   o 11 or more

Q3: [If you answered “yes” to the first question] which National Park System unit did you visit most recently?
   Responses: Fill in the blank

Q4: [If you responded yes to Q1] did your first visit to a National Park System unit occur while enrolled in college?
Q5: [If responded “no” to Q4] At what life stage did your first visit occur?

- Early Childhood (ages 0-5)
- Childhood (ages 6-12)
- Teenage (ages 13-17)
- Young Adult (ages 18-22)
- Adult (23+)

- Yes
- No
We are interested in understanding what motivates people to visit sites in the National Park System. The questions in this section address a variety of different factors that might motivate your visitation. Please provide the response that best represents you.

Q1: Considering your own experiences and motivations, indicate your level of agreement with the following statements:

- 1: Strongly Disagree
- 2: Disagree
- 3: Neither agree nor disagree
- 4: Agree
- 5: Strongly Agree

a. I visit National Park System units to experience solitude and/or spiritual reflection.
b. I visit National Park System units to explore nature.
c. I visit National Park System units to get exercise.
d. I visit National Park System units to observe wildlife.
e. I visit National Park System units to learn about the culture at a certain site.
f. I visit National Park System units to learn more about the history of an area.
g. I visit National Park System units because I live close to a National Park System Unit.
h. I visit National Park System units to see something that I do not have in my area of the country.
i. I visit National Park System units to give back to the community through volunteering.
j. I visit National Park System units to learn more about the environment.
k. National Park System units are a place I enjoy visiting for vacation.
l. I visit National Park System units for recreation activities (ex. Camping, fishing)
m. Visiting a National Park System unit is more cost-effective than many other travel options.

Q2: [for visitors] Thinking about your last visit to a unit in the National Park System, what were your other motivations for visiting?

Responses: fill in the blank, will categorize once responses are received
Q3: Please indicate your level of agreement with the following statement: “I plan to visit a National Park System unit within the next 12 months”

   o 1: Strongly Disagree
   o 2: Disagree
   o 3: Neither agree nor disagree
   o 4: Agree
   o 5: Strongly Agree
We are interested in examining what keeps people from visiting sites in the National Park System. The questions in this section address a variety of different factors that might prevent or limit your visitation. Please provide the response that best represents you.

Q1: Considering your own experiences, indicate your level of agreement with how much the following factors constrain your visitation to sites in the National Park System

- 1: Strongly Disagree
- 2: Disagree
- 3: Neither agree nor disagree
- 4: Agree
- 5: Strongly Agree

a. Entrance fees are too high at National Park System units
b. The hotel and food costs are too high at National Park System units
c. National Park System units are not safe places for me to visit
d. It takes too long to get to National Park System Units from my home
e. National Park System Units are too crowded
f. I do not know that much about National Park System Units
g. My family has no history of visitation to National Park System units
h. National Park Service employees give poor service to visitors
i. National Park System units are unpleasant places for me to be
j. National Park System units do not provide adequate resources in my native language.
k. There is not enough information available about what to do once inside a unit.
l. Visiting a National Park Service Unit does not interest me.
m. I do not feel like I belong at a National Park System unit.
n. National Park System units are not accommodating to people with disabilities.
o. I have other responsibilities which prevent me from having the time to visit National Park System units.
p. I have no one who will visit National Park System units with me.

Q2: What are other factors that serve as constraints to your visitation to a site in the National Park System?

Responses: fill in the blank, will categorize once responses are received
Q3: In your opinion, what is the most important thing that the National Park Service can do in order to encourage you to visit National Park System units?

Responses: fill in the blank, will categorize later based on response
Finally, please tell us a bit more about yourself. As a reminder, all information you provide is anonymous and we are only interested in grouped, not individual, responses.

Please indicate your agreement with the following statements:

- 1: Strongly Disagree
- 2: Disagree
- 3: Neither agree nor disagree
- 4: Agree
- 5: Strongly Agree

Q1: “I am concerned with preserving nature for future generations”
Q2: “My parents value nature”
Q3: “My parents tried to incorporate nature into my life as a child.”
Q4: “I make a special effort to buy products in recyclable containers”
Q5: “I have switched products for ecological reasons”
Q6: “I have attended a meeting of an organization specifically concerned with bettering the environment”
Q7: “I have the ability to take the vacation time needed to have a one week vacation”
Q8: I prefer indoor activities (e.g., social media, the internet, watching TV, cooking)

Q9: Approximately how many hours per day, on average, do you spend on a screen (please include cell phone use, computer use, television, etc.)?

Responses: drop down answer choices from 0-24

Q10: What year are you in college?

- Freshman
- Sophomore
- Junior
- Senior
Q11: What year were you born?
Response: textbox

Q12: Are you Hispanic or Latinx?
- Yes
- No

Q13: Please select your race
- American Indian or Alaska Native
- Asian
- Black or African American
- Middle Eastern
- Native Hawaiian or other Pacific Islander
- White
- Two or more
- Prefer not to answer

Q14: Which one of the following best describes the highest level of education obtained by either of your parents?
- Less than a high school diploma
- High school diploma or GED
- Some college, but no degree
- Associates degree (ex. AA, AS)
- Bachelor's degree (ex. BS, BA)
- Master's degree (ex. MA, MS)
- Professional degree (ex. MD, JD)
- Doctorate (ex. PhD, EdD)
- Do not know/unsure
Q15: What is your gender?
   o Male
   o Female
   o Transgender Female
   o Transgender Male
   o Non-binary
   o Prefer not to answer
   o Other

Q16: Are you an out-of-state or in-state student?
   o Out-of-state
   o In-state

Q17: What is your home state? For the sake of this study, please select from the drop down list the state in which you spent the majority of your life.
   Responses: From drop down list of abbreviations

Q18: Which best describe your typical motivations for vacation? Please indicate your agreement with the following motivations:
   o 1: Strongly Disagree
   o 2: Disagree
   o 3: Neither agree nor disagree
   o 4: Agree
   o 5: Strongly Agree

Motivation List:
   o Adventure
   o Relaxation
   o Cultural
   o Novelty
Q19: Please list any other typical motivations for your vacations.

Responses: textbox
Thank You for Completing the Survey

We appreciate your time and effort in completing this survey. Please contact us at jsultz@email.sc.edu or (773) 899-2664 if you have any questions or would like to work with us to share this survey. Thank you!

Q1: In exchange for your time and effort, we will be raffling off four $25.00 Amazon gift cards. If you would like to be entered in the raffle, please enter your email address below. Please note that your email will be stored separately from your survey responses to maintain confidentiality.
## Survey Distribution List

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