THE FUTURE OF OUR NATIONAL PARKS: HOW DO MILLENNIALS FEEL ABOUT AMERICA'S GREATEST IDEA?

by

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The Future of Our National Parks: How Do Millennials Feel About America's Greatest Idea?

Thesis directed by Associate Professor David G. Havlick.

ABSTRACT

What happens if future generations lack an appreciation for the lands managed by the National Park Service (NPS)? While visitation to all units of the NPS, as a whole, have continued to grow, the recent growth pales in comparison to the upward trend experienced from post-World War II to the late 1980s (Stevens et al. 2014). In fact, when looking at per-capita visitation, NPS visitation is in decline (Stevens et al. 2014). Additionally, as some of the iconic, flagship national parks are being loved to death, the NPS is dealing with a $13 billion-dollar maintenance backlog. To help solve these problems, the NPS should look for solutions from a generation that is rapidly shaping both the present and future as the most technologically integrated, most diverse, and largest in U.S. history (surpassing Baby boomers): Millennials. This thesis evaluates the attitudes and values of Millennials (aged 18-34), from the University of Colorado at Colorado Springs, towards America's national parks.

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CHAPTER I

INTRODUCTION

The National Park Service (NPS) Organic Act of 1916 states its mission is: "to conserve the scenery and the natural and historic objects and the wildlife therein, and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations" (National Park Service n.d., a). But, what happens if future generations lack an appreciation for the lands managed by the NPS—especially the iconic, scenic parks such as the Grand Canyon, Yosemite, Rocky Mountain, Yellowstone, Zion or the Great Smoky Mountains?

There is concern over relatively stagnant visitation numbers in the nature-based NPS park sites (Stevens et al. 2014). Additionally, while visitation to all units of the NPS, as a whole, have continued to grow, the recent growth pales in comparison to the upward trend experienced from post-World War II to the late 1980s. In fact, when looking at per-capita visitation, NPS visitation is actually in decline (Stevens et al. 2014).

Such a statement may seem a bit ridiculous if you have recently visited one of the previously mentioned iconic parks, as is highlighted by a recent NPR News article titled *Long Lines, Packed Campsites And Busy Trails: Our Busy National Parks*. The article describes the recent spike in visitation (since 2014) for the aforementioned parks along with the NPS' very limited financial resources

and the frustration visitors are experiencing with the crowds. These parks are dealing with a record number of visitors and long lines while NPS staff is understaffed and dealing with a maintenance backlog of just under $13 billon dollars (Maberry 2016).

Still, while some parks are in danger of being loved to death, it is important to take a step back and look at both the big and long term picture of our national parks. I will reiterate that while visitation continues to increase, even to record numbers in 2015 and 2016, per-capita rates are in decline as the U.S. population continues to increase relative to total NPS visitation. We must also consider who visits national parks and why. Do the visitors reflect the increasingly diverse cultural and ethnic makeup of the U.S. population? How are people experiencing the parks? How many of these visitors are American citizens vs. foreign visitors? We must also consider that the NPS system includes more than the famous flagship parks that most people are familiar with; the NPS system manages an inventory of more than 400 natural, cultural, and historical sites—many of which are far less visited. The current state of negative per-capita growth should cause some alarm as the NPS, which increasingly relies on visitor fees to help fund itself, looks towards the future (Stevens et al. 2014; Taylor 2016). If the current trend continues, there may be trouble looming ahead for our nation's national parks.

Given the current situation, this should beg the following questions: "What is causing the decline?" and, "What practical solutions exist for reversing the

trend to ensure that our National Parks are relevant 100 years from now?" These questions lead, in turn, to my overriding research question, which is to ask "How do Millennials feel about national parks?" To answer these questions, I need to first provide some background on current and future topics affecting national park visitation.

Existing Research on National Parks

After growth in NPS visitation began to significantly slow, scholars took notice and attempted to identify the cause. As a result, a number of articles, specifically focusing on the future of the NPS, and the lands managed under its authority, were produced on the subject. It would appear that various factors may be slowly chipping away at the essence of what was once referred to by Wallace Stegner as "America's best idea" (Stegner 1999). Much of this literature centers on the following three themes: diversity of visitors (or lack thereof), cost of attendance, and our growing connection to technology and its impact on our interaction with nature.

Academics are not alone in their attention to NPS visitation trends. In their 2008 Commission Report, the NPS clearly acknowledged the challenges they face in not only better engaging with a more diverse public but also finding new ways to communicate with them. What all of this literature seems to neglect, however, is how the largest generation in U.S. history, Millennials, will impact the future of our national parks (Rainer & Rainer 2011). The makeup of the U.S. population is quickly changing and figuring out a way to form a strong bond with the up-and-coming Millennial generation may be the key to success. Of the three topics the NPS needs to address, diversity and technology are key facets of this generation. Therefore, this literature review will also explore topics regarding Millennials: who they are, their world view, and what they value most in life.

Diversity

Perhaps the most severe problem for the NPS lies within the makeup of current and past visitor demographics. In this section, ethnicity category descriptions will be based on the U.S. Census Bureau's ethnicity classifications which adhere to the 1997 Office of Management and Budget (OMB) standards on race and ethnicity (United States Census Bureau 2013). Those of non-European descent may be referred to as non-white, and will also include all groups commonly referred to as Hispanic. Ethnic groups identified as white will then be those that are of European descent and not Hispanic. Specific identifiers such as Hispanic or African American will be used to identify the subcategories of non-white persons.

Since the 1960s, studies have found that the NPS has done a poor job in attracting non-whites to its sites (Floyd 1999). Surveys and studies—such as those conducted by The Visitor Services Project (VSP) at the University of Idaho Cooperative Park Studies—reveal the troubling statistics. Whites have been shown to make up the overwhelming majority of various visitor groups, as high as 95 percent, in places such as Santa Monica Mountains Recreational Area, Booker T. Washington National Monument, and Bandelier National Monument. This figure is especially noteworthy as one is of particular significance to African American history (Booker T. Washington) while the other is located in a state with a significant Hispanic population (Bandelier).

In 2003 the NPS conducted a survey showing an obvious disconnect in attracting visitation by African Americans, compared to whites and Hispanics. This particular survey asked participants whether or not they had visited a NPS site within two years of their participation in the survey; it was found that only 13 percent of African Americans had done so, versus 36 percent of whites and 37 percent of Hispanics (Solop et al 2003). This figure is interesting because it suggests that African Americans were nearly three times less likely to have recently visited a national park as opposed to whites and Hispanics. Unfortunately, the study also indicates the failure of the NPS to fix a problem that had been identified 30 years earlier in one of the first writings to call attention to this issue by Joseph Meeker in his essay titled *American Eye: Red, white, and Black In The National Parks* (1973).

However, while the 2003 NPS study suggests Hispanic visitation to be greater than African American visitation, another NPS survey conducted a few years later in 2008-2009 found Hispanics represented only nine percent of total NPS visitation while totaling roughly 16 percent of the total U.S. population in 2011—a number that may increase to as high as 46 percent by the year 2050 (Le 2012; Weber and Sultana 2013b). Nine percent may not seem bad, considering the demographic made up only 16 percent of the total population as of 2011, but for a demographic that is likely to make up just under half the total U.S. population in the next 34 years, the NPS will need to find a way to

significantly increase that percentage. It cannot be assumed that as the Hispanic population increases, so will their percentage share of total NPS visitation.

Much of the literature on the topic of diversity, as it relates to national park visitation, can best be categorized by four hypotheses, proposed by Myron Floyd in the late 1990s and early 2000s: Marginality/Elitism, Subculture/Ethnicity, Cultural Assimilation, and Discrimination (Pease 2011). The Marginality/Elitism hypothesis explains low numbers of non-white visitation as a result of socio-economic limitations such as income, not having access to transportation, and lack of awareness for NPS site recreational opportunities (Floyd 1999, 2001). The Subculture/Ethnicity hypothesis describes how different groups interact, or do not interact, with NPS sites as a result of differing interests and values which may or may not be reflected by those places (Weber and Sultana 2013b). The Cultural Assimilation hypothesis theorizes the degree to which a particular non-white ethnic group has adopted the characteristics of whites in participating in outdoor recreation (Krymkowski et al. 2014). And finally, the Discrimination hypothesis assesses the factors which have served as deterrents to minority visitation—especially at NPS sites in the southeastern U.S. where, until their abolishment, Jim Crow laws placed limitations on the way African Americans experienced the parks due to segregation (Erickson et al. 2009).

Evidence can be found supporting all four theories; however, some seem to prove strongest with a particular non-white group than others. The Subculture/Ethnicity hypotheses does well to capture reasons, in general, for a

severe lack of African American NPS site visitation. A good example comes from qualitative research which explored reasons why African Americans in Denver, Colorado, visit Rocky Mountain National Park in low numbers despite its close geographical proximity to the Denver metropolitan area (Erickson et al. 2009). In reference to visiting national parks or recreating in natural areas, African American participants were quoted as expressing comments such as "that's not a Black thing" and that going to a national park would be similar to rejecting or shunning their own culture (Erickson et al. 2009, p. 540).

Of course, the Discrimination hypothesis should not be overlooked as a strong factor affecting African Americans in this regard either. Nature-based language such as "woods" and "country" have been found to produce negative connotations associated with racist underpinnings derived from the slavery days in the South (Erickson et al. 2009). In another study, a young African American male participant further validates this hypothesis by responding to a question on whether he would be willing to travel with a group to a NPS site in a rural, predominately white community by saying "Four black folks from Oakland cruising the back roads of Montana. Are you nuts?" (Krymkowski et al. 2014, p. 38).

For the Hispanic perspective, the explanation for low visitation numbers appears to be better addressed by the Cultural Assimilation hypothesis. Interestingly, this hypothesis exposes a stark difference between various subgroups within the Hispanic category, with acculturation and ancestral origin

playing a key role (Krymkowski et al. 2014; Carr and Williams 1993; Le 2012). More acculturated Hispanics—meaning they have longer generational tenure than Hispanics who have recently immigrated—have been found to differ less from whites in their participation in outdoor recreation and visitation of nature-based NPS park sites than less acculturated Hispanics. Similarly, recent immigrant Hispanics show different preferences in their uses of the parks such as Mariachi performances at day use sites (Le 2012). Since activites like Mariachi performances are not the norm at most NPS sites, this can lead to less acculuturated Hispanics potentially feeling unwelcome and avoiding these parks altogether.

Geographic location and accessibility have been shown to be another factor affecting visitation rates by non-whites. As one would expect, NPS sites located closer to urban areas attract greater numbers of visitors than do those which are located farther distances; however, traveling farther distances has proven to be less of a concern for whites than non-whites and is reflected in the level of diversity in the visitor population of various sites by location (Weber and Sultana 2013b). It is important to note here, though, that the type of NPS site can also play a significant factor in attracting more diverse visitor populations. As previously mentioned, Rocky Mountain National Park experiences low numbers of African American visitors; conversely, 37 percent of the visitors to the Nicodemus National Historic Site, located relatively far away from a major urban area, in

Bogue, Kansas, are African American—a percentage that is significantly higher relative to others (Weber and Sultana 2013a).

Corroborating the idea of accesiblity, a study by Weber and Sultana (2013b) found relatively low accessibility to NPS sites for non-whites relative to whites. In their study, accessibility was measured by dividing the ethnic population of each U.S. county by the distance between them and an NPS site with a standard distance decay value of two. The highest percentage of accessibilty, to that of whites, was 19 percent for African Americans followed by 16 percent for Hispanics, five percent for Asians, and less than one percent for Native Americans.

An attempt to address the issue of low visitor diversity is being made, to some extent, by the NPS in putting a greater focus on adding more cultural and historic sites to its inventory to "commemorate individuals, places, or themes not currently represented within the system" (Weber and Sultana 2013a, p. 455). Cultural and historic sites have served better in attracting diverse populations for reasons such as cultural relevance and geographic location, as opposed to scenic sites, but there is still much room for improvement. Additionally, while it is important to add more cultural and historic sites that will appeal to more diverse groups, the NPS still faces an immense problem in connecting non-whites with its nature-based, flagship parks. This is partially the fault of the NPS for previously participating in practices of segregation, by way of the Jim Crow laws in the

Southeast, while also doing little, for so long, to make a better effort of attracting non-whites into its nature-based parks.

According to the Dictionary of American History, Jim Crow laws were "passed principally to subordinate blacks as a group to whites and to enforce rules favored by dominant whites on non-conformists or both races" (Kousser 2003, p.479). Their effect on national parks went as far as designating a separate "Negro Area" in Shenandoah National Park (Erickson et al. 2009). To be fair, while the NPS did essentially participate in practices of segregation, there was pressure placed upon the agency to comply with state laws as Shenandoah National Park, as well as Great Smoky National Park, which were created by lands donated from states where the laws were enforced at the time (Weber and Sultana 2013b).

To make matters worse, the idea of outdoor recreation—hiking, camping, rock climbing, etc.—as primarily being a "white activity" has been reinforced by outdoor themed media content which is typically found to be void of non-whites. In *Apartheid in the Great Outdoors: American Advertising and the Reproduction of a Racialized Outdoor Leisure Identity*, Martin (2004) reviews magazine advertisements from three major publications, dating from 1985-2000, for images of African Americans participating in outdoor recreation: *Ebony*, *Outside*, and *Time*. His findings revealed just how little African Americans are depicted participating in nature focused outdoor activities: in *Outside*, only three advertisements were found showing African Americans hiking versus 107 for

whites; in *Time* zero advertisments were found compared to 11 for whites. For advertisments showing African Americans participating in camping, *Outside* magazine featured zero ads with African Americans, but 44 with whites.

Cost

While the political environment and the decrease in federal lands budgets that occurred during the 1980s increased the pressure for all federal land management agencies to charge fees, entrance fees have been charged for admission into national parks since the establishment of the NPS in 1916 (Ostergren et al. 2005). In some cases fees were even initiated prior to the establishment of the NPS, as was the case at Mount Rainer National Park (1908), Crater Lake National Park (1911) and Yellowstone National Park (1913) (Ostergren et al. 2005). A few years later, in 1916, the entrance fee to enter Yellowstone was $10 (Ostergren et al. 2005; Anderson and Freimund 2004). Today, per the NPS' Yellowstone website, a seven day pass for one, noncommercial vehicle costs $25 and also includes entrance into the neighboring Grand Teton National Park. The current entry fee is clearly a great bargain compared to what the price would be if the 1916 price had kept pace with inflation, which, according to the Bureau of Labor Statistics CPI Inflation Calculator is $217.53, as of 2016 (Ostergren et al. 2005).

Not everyone agrees with the idea that NPS fees are a bargain and view any fee charged as being prohibitive to certain socioeconomic groups with lower incomes, advocating for all public lands to be entirely funded by taxes (Anderson

and Freimund 2004; Shwartz and Lin 2006). There is also evidence that visitation numbers at particular NPS sites are negatively affected by fee increases. After increasing fees as a result of the federal Recreational Fee Demonstration Program (RFDP) in 1995, the number of visitors to Zion National Park increased lower than predicted from 1995 through 2000 (Schwartz and Lin 2006). If higher fees do have a significant impact on park visitation, there may be more trouble on the horizon as the NPS has proposed additional price hikes up to 150 percent for various sites (Tuttle 2014).

Despite evidence to suggest park fees may be too expensive for some, encouraging results produced from one nationwide study in 2000 found that 80 percent of respondents thought the NPS entrance fees were fair (Ostergren et al. 2005). The same study also found a weak association between those who believed park fees to be too expensive and those with low income and education levels. A weak association between the two groups is surprising since it could easily be assumed that most of those who believed fees to be too expensive would also have lower income and education levels. Additionally, further study revealed that respondents considering NPS entrances fees to be too expensive had been factoring the entire cost of a visit in responding to the question, such as lodging and transportation.

During the most recent economic recession, Poudyal et al. (2013) determined that overall visitation throughout the NPS system had been adversely affected by the strain put on the wallets of potential visitors. If only considering

the entrance fee, a family vacation to a place like Yellowstone is, indeed, a relative bargain, assuming the family lives in close proximity to the park and makes reservations for tent camping within the park. If a family is traveling from the eastern U.S. to Yellowstone, and prefers hotel accommodations rather than tent camping, the total cost may no longer be a bargain, as a result of higher lodging and transportation costs. According to the NPS, in 2010 the average spending for national park visitors on lodging outside of a park was $262 per night (National Park Service n.d., b). After adding transporation, food, and other associated expenses, visiting a far away NPS destination for vacation could cost a family a few thousand dollars (Stevens et al. 2014).

Technology

As technology continues to evolve, it both changes and improves our everyday lives in numerous ways, but does increased integration with technology detract from society's relationship with nature? Research by Pergams and Zaradic (2006) sparked controversy amongst recreation researchers by attempting to explain the downtrend in U.S. national park visits as a result of Americans spending more time engaging with electronic media. Critics denounce their research for attempting to equate causation with correlation, containing an erroneous time period of 1988 to 2003 (many popular electronic media activities did not become popular until the mid-1990s), and making invalid assumptions about their sample group (Warnick et al. 2009).

It should be mentioned that Pergrams and Zaradic (2006) did explicitly state they were not suggesting causation by correlation. They also make a persuasive point towards their argument in stating that we are all subject to the same time constraints: we all have only 24 hours in a day, seven days in a week, and 52 weeks in a year. Consider this with the fact that the average time Americans spent on the internet went from zero hours per year in 1987 to 157 in 2003—a number that is surely higher in 2016. It is possible that increased usage of electronic media may be taking time away from that which could be spent in nature, in our overall fixed allotment of time, but there are many other possible explanations. Despite their critics, Pegrams and Zaradic at least brought attention to a topic worthy of more research: How does increased exposure to technology affect our relationship with nature and visitation of national parks?

Another study, again by Pergrams and Zaradic (2008), showed that camping—an outdoor recreation activity enjoyed by one in five Americans, and as such, more popular per capita than hunting or fishing—has experienced a decline in participation since 1987. Coincidentally (or not), this is also about the same time that NPS visitation growth slowed considerably. Even the idea of camping is perhaps slowly losing its connection with nature. Recently, state parks in Oregon have experienced a strong demand for the rental of yurts, which currently exist in 18 of the state's parks (Keller 2013). These yurts offer more of a quasi-camping experience as they provide cozy modern comforts such as bunk beds, futon sofas, and electricity. The yurts have been so successful that they

have captured the attention of the U.S. Forest Service (USFS), which is now working on installing them in national forests.

Public land managers, at both the state and federal level, are all starting to take notice of something generally different in the use of various public lands as well. Not only are preferences changing in how people experience public land recreation, but both the distance they travel, and time they spend on public land, is less than in the past. With the current trend, there could also be a decrease in visitation to remote wilderness areas (Keller 2013).

It has been suggested that people who are exposed to nature-based areas as children are more likely to care about them as adults and are also more likely to engage in environmentally responsible behavior (Pergams and Zaradic 2006). If this is true, introducing children to nature-based NPS sites is a crucial piece to the agency's future. If people are beginning to experience public lands differently, learning how to adapt to change, rather than resist it, may be in the best interest of the NPS.

Millennials

Depending on the source, there are different ideas about when exactly the births of the Millennial generation began and when they ended. The reason for the inconsistency is due to the fact that generations can be classified a couple ways. The first is based upon more of a quantitative approach by looking at the number of live births per year; whenever a spike occurs in the number of live

births, in any given time period, a new generation is signaled. The second, and the one that could be argued to make more sense, is based on the collective, common behavior, as well as common historical experiences, for a group of people in time (Rainer & Rainer 2011). What makes the second way of classifying a generation challenging is deciding where exactly to properly distinguish the start and stop date. For the most part, the general consensus identifies the the birthing of the Millennial generation sometime in the early 1980s through to the early 2000s. For the purpose of this literature review and the remainder of this thesis, the years of 1982-2000 will be the frame of reference used as this is the one used by the U.S. Census Bureau.

There are a few significant characteristics of this generation that no other generation before it can claim: Millennials are the most racially and ethnically diverse generation in U.S. history—44.2 percent are of a minority race or ethnic group; they are now the largest in the U.S. at 83.1 million—surpassing the Baby Boomers at 74.9 million; computer technology has always been a part of their lives; and, they are the most educated generation in U.S. history (Fry 2016; Rainer & Rainer 2011; United States Census Bureau 2015). In addition to these significant and unique characteristics, the Millennial generation is about to wield a significant amount of power in the years and decades to come. By the year 2020, one in three adult Americans will be a Millennial; and, by the year 2025, they will make up roughly 75 percent of the U.S. workforce (Winograd & Hais 2014). With that type of stature in society, they are worth learning more about.

Many Millennials were raised by Baby Boomer parents; while Baby Boomers possess many positive attributes, they are also said to generally be characterized as self-centered and materialistic (Rainer & Rainer 2011). However, as this generation began to have their Millennial offspring, their self-centeredness shifted towards ensuring the best for their children, to the point where they inspired a new term for highly involved parents: "helicopter parents" (Rainer & Rainer 2011). As a result of Baby Boomers involvement in their lives, Millennials tend to have close relationships with their parents and continue to seek parental guidance throughout adulthood (Rainer & Rainer 2011).

But, while Millennials may have strong bonds with their parents and highly value their guidance, they seem to have also been inspired to learn from the mistakes of their parents' generation. In the 2011 book by Thom and Jess Rainer titled *The Millennials*, interviews were conducted with 1,200 Millennials born 1980-1991, from across the U.S. (their classification of a Millenial is based on the quantitative method of a significant increase in live births). Many of the questions that were asked of these Millennials in their interviews covered topics of diversity and acceptance, religion, and employment, among others. While there are many good insights to be gained in this book, the dominating theme was the importance of family. Millennials highly value a connection with family, so much so that it has been an area of contention amongst them and their employers in the workplace. Unlike their parents' generation, they are not workaholics. They desire work/life balance and if given the choice between an

increase in pay or more vacation time, they are likely to choose more vacation time if it affords them the opportunity to spend more time with loved ones and friends. Perhaps the following quote "Work to live, not live to work" should serve as the mantra of the generation (DeChane 2014). This is not to say that making a high income is not important to Millennials; in fact, it was the second most important factor in job selection, behind work/life balance, in the research by Rainer & Rainer. What was one of the main reasons behind the desire for a high income? A high income enhances their means to be able to travel and spend time with both family and friends.

Millennials' devotion to family is likely rooted in some negative experiences early on in their lives. Some were deprived of quality time with their parents who worked long hours. Some grew up splitting time amongst divorced parents and may be the reason why 86 percent of the participants in Rainer and Rainer's study plan to marry only once in their lives. Additionally, the events of the September 11th, 2001 terrorist attacks may have also proved to be a motivating factor in not only their devotion to family but also their overall outlook on life; throughout many of the interviews, regarding various types of questions, the idea that "life is too short" was a common theme.

Besides strong family bonds, Millennials also have friendships that transcend racial, ethnic, and lifestyle lines far more than previous generations. Diversity has been commonplace for a majority of Millennials throughout their lives. In the research conducted by Rainer & Rainer, 68 percent of Millennials

indicated that they grew up in places that had significant diversity which thus helped promote friendships between various races and ethnic groups. Furthermore, though "lifestyle" was never clearly defined by the researchers, 80 percent of Millennials indicated they had friendships with people who live different lifestyles from their own—suggesting a high level of tolerance and acceptance of others who are different from themselves.

If family and friendships are important pieces of Millenials' lives, then perhaps we can view technology as the glue they use to hold these pieces together (Rainer & Ranier 2011). Compared to their predecessor generations, they are more likely to have a social media profile of some type and post videos of themselves online (Pew Research Center 2010). To stay connected to their social networks, they are also more likely to use wireless internet when not at home or work; this is accomplished using a variety of technologies such as text messaging, Skype, e-mail, and Twitter (Rainer & Rainer 2011; Pew Research Center 2010). In fact, technology use is so deeply engrained in their lives that in a Pew Research Poll it was picked as the number one unique self identifer of Millenials at 24 percent, with Music/Pop culture coming in a distant second at 11 percent (Pew Research Center 2010).

Another significant Millennial characterisitic worth mentioning is their optimism towards their individual futures, which appears to be astonishingly high. The Rainer & Ranier research found that in response to the following question: "I believe I can do something great," 60 percent agreed strongly, while

36 percent agreed somewhat. Of course, many people, regardless of their age or generation, may have optimistic outlooks for their futures. Nonetheless, it seems significant that 96 percent of the participants in Rainer & Rainer's research felt at least somewhat confident that they could do "something great" in life.

It may be this high level of optimism which also fuels their desire to have a positive impact on society. Nine out of 10 participants in the Rainer and Rainer study believed it is their obligation to make a difference in the world. Likewise, 77 percent believed that it is their duty to serve others and 60 percent claimed to have given, or continue to give, money to some type of non-profit, charity, or religious organization. Not surprisingly, then, as consumers, Millennials are also found to be the most concerned demographic with corporate social responsibility in regard to their buying decisions (Winograd & Hais 2014).

Millennials are undoutedly shaping up to be a generational force to be reckoned with as they come of age in their adult lives and shape the future of the world around them. If the NPS fails to effectively demonstrate to Millennials why it and the lands under its authority are of immense value, now, the agency runs the risk of becoming an obsolete land management system from generations past. What does the future look like for national parks? For that, we need to ask Millennials some questions about them.

Problem Statement

The future of the National Park Service (NPS), and over 400 sites managed under its authority, are in a state of uncertainty. From the conclusion of World War II through the late 1980s, the NPS experienced impressive and steady growth in visitation of its sites, system-wide. Since reaching a peak during the late 1980s, growth of the per-capita visitation, relative to U.S. population, is in decline.

There are many theories that posit the cause of this problem: a lack of attracting a more diverse public, the overall cost of a visit (especially to remote locations), and a changing society that may be losing touch with nature as a result of increased usage of technology. Some might argue less people would be beneficial to places such as Yellowstone and Yosemite which have been overrun by record crowds in recent years.

While it is understandable to feel this way due to the ecological and financial stress it places on these parks, we must keep the larger picture in mind. After all, how do we ensure people care more deeply about these parks beyond driving through and snapping a few pictures of the spectacular scenery? How do we motivate the American public to push our political leaders to more adequately fund our national parks and avoid 12-billion-dollar maintenance backlogs? How do we promote a public sentiment that advocates for loving our parks with care, rather than loving our parks with a careless disregard for future generations? It

should also be remembered that there are over 400 sites within the NPS system, a majority of which many Americans may not be aware of.

To see the bigger picture of national parks, I look towards the future. The demographics of the U.S. are rapidly changing and Millennials are the up-and-coming generation that will soon have a profound impact on society. They embrace technology as a major component of their lives and, more than any other generation before them, they are a racially and ethnically diverse group. Many older Millennials have already begun to have children of their own who will shape the lives of the newest unnamed generation now in its infancy. Based on the topics and trends I have already addressed, this may not be a good sign for NPS parks. But, how can we know for sure?

The goal of this thesis is to assess the attitudes of Millennials in regard to America's national parks. How highly do they value national parks? What kind of connection do they have with them? What is their knowledge of lesser-known parks that have far less visitors than a place like Yellowstone? How significant are national parks to American national identity?

CHAPTER II

METHODS

To accomplish the goals of my research, I created two types of survey instruments with an identical series of questions—one electronic and one in paper form. Participants were sourced from the student population at the University of Colorado at Colorado Springs (UCCS) who were born between the years of 1982 and 1998. Although Millennial births span from 1982-2000 (U.S. Census Bureau), only willing participants aged 18-34 were permitted to participate in the survey, following their signature of consent. As a member of the student population myself, I approached the various student organizations and academic departments on campus to recruit participants. I contacted the heads of each student organization, along with the administrators from each academic department, and asked for their assistance in helping me source participants by presenting a brief description of the study along with a link to the electronic survey to their members/students. Additionally, I asked for permission from various facilities on campus with high student traffic to do in-person recruitment with the paper version of the survey.

After gaining consent from the participant, the opening questions of the survey gathered basic demographic information such as age and ethnicity, in multiple choice format, where age range and ethnicity options are provided for selection. The core questions in this survey utilized no more than three types of

questions such as list, scale, and open. To analyze the results of the survey, I employed descriptive statistics and compared and contrasted subsets of participant's responses (see Appendix A for a copy of the survey instrument).

The survey questions I constructed assessed the attitudes, knowledge, and values that Millennials have towards our national parks in order to get an idea of how national parks may fare in the coming decades. Based on the information in the literature review, one could be led to believe that our national parks are poorly positioned to achieve the same level of success with this generation, compared to those before them. After all, Millennials possess two distinctive characteristics with which the NPS seems to be struggling most: diversity and integration with technology. If America's largest generation is becoming distanced from national parks, what issues underlie this problem that could threaten the future of the NPS? On the other hand, if Millennials do have a significant bond with national parks, what does the NPS need to do to not only maintain that connection but also make it stronger?

The ideal study to assess the attitudes and values of Millennials towards America's national parks would, of course, occur across the U.S., and all its territories, and consist of a sample representative of all races and genders under the Millennials' defined timespan of 1982-2000 (U.S. Census Bureau 2015). Why focus only on American Millennials in regard to American national parks and exclude foreign Millennials? This is because while foreign Millennials may also visit and have a deep appreciation for American national parks, it is American

Millennials who ultimately help shape the future of national parks as both voters and taxpayers. This study, however, is more limited in scope, but can provide insight into the attitudes and values of the Millennial population at the University of Colorado at Colorado Springs (UCCS) towards national parks. Further research should explore similar questions on both a broader geographic and demographic scale.

The primary research tool I chose to use for my study is a mixed-method survey. A mixed-method survey is an excellent, practical tool for gathering complex quantitative and qualitative data on insights regarding the values and attitudes of a sample representing a broader population, on a particular topic (Hay 2010). This ability to derive insights about a broader population based on a sample of that population made the mixed-method survey the best possible research tool for the needs of my research. Additionally, it is a cost-effective research option, which was an important consideration for me as financial resources were very limited.

Another cost-effective method that can produce quality data in a short amount of time is a focus group (e.g. Skop 2006). As Skop (2006) best puts it, ". . . focus groups are useful for gaining background information, clarifying ideas, developing questions, and understanding group reactions to particular problems, processes, and patterns." It is no wonder, then, that, the practice of combining surveys and focus groups, where surveys are the primary research method and focus groups are a preliminary method, is one of the leading ways of pairing

quantitative and qualitative methods together to develop a questionnaire (Morgan 1996). With this in mind I, too, utilized a focus group as a preliminary research method to develop questions best suited for increasing the effectiveness of my mixed-method survey.

The focus group I conducted consisted of six adult Millennial participants ranging in age from 18 to 30; three of the participants were personal friends, while the other three were friends of those friends whom I had never met prior to conducting this focus group. For the most part, this was a homogenous group of participants in that everyone knew each other, either directly or indirectly, and were members of the same generational cohort. When conducting focus groups, homogeneity is recommended to establish a comfortable atmosphere that promotes participation (Skop 2006). However, there is a disadvantage to a homogeneous focus group due to the fact that it can lead to segmentation of a population. Though the group was reasonably diverse in age and orientation towards the outdoors, within the Millennial age timeframe, it was not racially diverse. If a focus group had been my primary research method, I would have needed to conduct multiple focus groups to reach data saturation that alleviates the effect of segmentation (Skop 2006). Since the focus group was being used as a means to help refine my survey questions, rather than as my primary research method, no additional focus groups were conducted.

Prior to conducting the focus group, and building from my prior research into the literature on national parks and Millennials, I devised a list of questions

to be the focal points of conversation. My intent with the questions I chose was to get people immersed in thought and to create and sustain insightful dialogue amongst the group. On the other hand, I also needed to be considerate of my participants' time; one to two hours is the typical duration of most focus groups (Hay 2010). I settled on eight questions which allowed for anywhere from seven and a half to 15 minutes per question.

After completing the focus group, I moved on to the critical planning and final design stage of my mixed-method survey. Although a mixed-method survey is a practical tool for gathering complex quantitative and qualitative data on insights regarding the values and attitudes of a sample representing a broader population, deciding how to construct the survey—particularly the selection and composition of questions—is a challenge. The first step towards creating my survey began with listing all of the topics I wished to cover. To optimize quality, I used the following guidelines in the construction of each question and the survey as a whole: contribution to answering the broader research question; reflecting on existing sources of information—such as the literature review and focus group; question clarity; and consideration of the time and energy of participants (Hay 2010).

While the first two listed guidelines used to construct the survey were straightforward to me, the last two were less so as I had to think about them from the perspective of the participant. Therefore, question wording that was clear to anyone regardless of their familiarity with the subject matter became

paramount in preventing confusion or misinterpretation. Also, ensuring a reasonable length of time for the participant to complete the entire survey, which is recommended to be less than 10 minutes, was important (Kitchin & Tate 2013).

With criteria set for the questions I would ask my research participants, the next phase of constructing my survey instrument was to determine how to ask the questions. For that I chose the following basic question types: list, scale, and open. List questions are useful for basic closed questions such as demographic information which were the opening questions of my survey. These were followed by additional list questions such as "Have you ever been to a place in the national park system?" Scale questions, also another form of closed question, are highly valuable in determining attitudes towards particular statements on a fixed scale from positive to negative (Kitchin & Tate 2013). Scale questions accounted for 12 out of 24 of my survey questions and were grouped together in the middle (after the opening list questions and before the closing open questions). They asked participants about their attitudes towards topics such as "In your opinion, how much are our national parks tied to American identity?" Thanks to the freedom of open questions, there is the potential to achieve what closed questions cannot: rich, complex data that provides unanticipated and intriguing insights. The open questions, which totaled four, were placed at the end of the survey. Open questions are typically placed at the end of a survey because at that time the participant should be best

positioned to answer such questions based on the content of previous questions (Hay 2010). Keeping a logical order and flow of questions, with groupings of related questions, helps contribute to the quality of data collected as the participant feels that there is purpose to their answers (Kitchin & Tate 2013; Hay 2010).

Upon completing a draft of the survey, I conducted a pilot test to determine if the survey would function as planned to collect the data I needed (Kitchin & Tate 2013). I conducted the pilot test amongst five millennial aged participants; two of these participants were family members while the other three were coworkers. The feedback from the pilot test was generally positive with no recommendations for changes. After my own final review of the survey and receiving feedback from my advisor, I made the decision to make a few minor additions aimed at providing a clearer picture of participant demographic attributes. Those changes were questions asking for the participant's college major as well as the geographical location in which the participant spent a majority of their life.

Once the survey was finalized, I created two different formats: an electronic and a paper copy. Both versions were identical in the number, sequence, and order of questions. Both were also paired with a consent form as required by the UCCS Institutional Review Board (IRB). The consent form also provided participants with a description of the study, risks, discomforts, and their rights as participants. For the electronic version of the survey, I chose a service

called SogoSurvey. Of the many online survey services available, I found this particular service to be the best all-around in terms of combining price with functionality for the needs of my research. The most important features offered by SogoSurvey were the ability to generate a unique web address link to the survey, block participants from responding more than once by both IP address and Cookies, and the ability to customize the available survey templates. The paper copy of the survey was made with Microsoft Word and consisted of three single-sided pages.

The next phase of research was to determine how to sample the target population; in this case, the Millennial population of UCCS. This was done two different ways depending upon which version of the survey was used. With the electronic survey, I began by identifying a convenient sampling frame that could be used to source/recruit willing participants (Kitchin & Tate 2013). One of the advantages of a university setting such as UCCS is the accessibility of contact information—like email addresses—for student organizations, academic departments, and faculty and staff; this was the sampling frame I used in hopes of accessing large numbers of perspective participants. After compiling a list of possible contacts—particularly administrative staff, faculty, and heads of student organizations—I began sending recruitment emails to each contact. The recruitment emails, also approved by the IRB, were based on a template I developed, then personalized to the recipient where appropriate. These emails primarily did the following: introduced the researcher (me), explained the

research and its objectives, and asked for the recipient's help in reaching out to their network of students, with a link to the electronic survey, to find interested participants.

For the paper survey, I identified areas of high foot traffic on the campus of UCCS and then approached the appropriate managers of those locations for permission to conduct surveys. The selected locations were the UCCS Recreation Center and the University Center, which is a centralized student gathering area near places such as the library, Clyde's student lounge, and the UCCS bookstore. To recruit participants in both locations, I sat at a table greeting passers-by with the following: "Hello, I am doing a survey on national parks. Would you be willing to participate and help me with my research for my graduate thesis?" In total, I dedicated three days to data collection via the paper survey: one day at the recreation center and two days at the University Center; all three days occurred on a Friday with data collection taking place from approximately 8:00 a.m. to 1:00 p.m.

The type of sampling method I engaged in is best identified as a convenience sample. While convenience sampling is subject to critique for its low level of dependability to make broad generalizations or universal claims, for case-based research it can be useful and appropriate (Hay 2010). Convenience samples also are feasible with limited time or funding, both of which apply to my case (Hay 2010). To be clear: I did not conduct a random sample of Millennials, but given my access to the UCCS student population, I tried to access as broad a

representation as possible for this research. For example, with the electronic survey, of all the individuals that were contacted, I had no way of knowing who would not only respond to my recruitment email but also assist me in making the electronic survey available to their network of students. The only exceptions were two contacts which I knew well enough to feel confident in their wiliness to assist me: my graduate advisor and an officer for the Geology Club. As for the paper survey, I picked two locations that were likely to attract students for different reasons and therefore yield a wider range of students: the recreation center and University Center. The goal for the number of surveys to collect over a three-week period, which as the first three weeks of class during the UCCS fall 2016 semester, was a minimum of 100. In total, I was able to gather 216 surveys: 96 electronic and 120 paper.

Once I had conducted my surveys, I turned to the task of data analysis; of course, this could not be done without translating the data into a format that makes it suitable for analysis. As to be expected with a mixed-method survey, there are different methods that need to be applied to the mix of quantitative and qualitative data. A majority of my survey questions where closed and could be easily coded quantitatively. An example of such a question is age where a total of five responses where available: 18-21, 22-25, 29-29, 30-34, and 35 or older. Coding for this question was rather straightforward; I assigned a 1 to 18-21, a 2 to 22-25, and so on. Coding was particularly simple for my scale

questions which were essentially pre-coded—a practice that is recommended wherever possible (Kitchin & Tate 2013).

The four open, qualitative questions required much more effort to code. To make sense of this kind of data, a process needs to take place to reduce it to a more manageable thematic format (Hay 2010; Vaughn & Turner 2015). I began this process by first conducting content analysis, whereby I read through each of the open question responses without assigning codes, but rather taking note of frequently-used terms and phrases to identify patterns (Hay 2010). Because information may be inadvertently missed from just one review, this same process was repeated to ensure a good foundation from which to begin assigning codes.

An example of a code I knew I would immediately apply based on the content analysis came from the question which states "How would you recommend that the National Park Service use technology to assist its interpretive/educational efforts, if at all?" Not surprisingly, I noticed many mentions regarding the utilization of smartphone applications. The broad category of "smartphone applications" was then used as an initial code to begin the process of data reduction for all responses mentioning smartphone applications. This broad category would, of course, require further refinement as not all mentions of smartphone applications were the same. For instance, many respondents mentioned making smartphone applications available that provided navigation and self-guided tours of national parks, while others mentioned using

smartphone to encourage the use of the currently popular Pokémon Go game application in national parks. I continued to refine my thematic coding to produce a final list of codes that best categorizes the qualitative data, yet avoids too many codes that make data unsuitable for statistical analysis (Kitchin & Tate 2013).

After finalizing my list of codes, I created a code dictionary, also known as code book (Vaughn & Turner 2015; Kitchin & Tate 2013). A code dictionary is essential for translating qualitative data into a form that is more available to analyze, and helps to maintain clarity of the information represented. With all open and closed question responses coded, and information from both the paper and electronic surveys logged into a Microsoft Excel spreadsheet, the data was now ready for statistical analysis. Additionally, I added an extra category of code to the file so I could later compare the electronic survey responses to the paper survey responses to determine if there was any significant difference: a 1 for electronic and a 2 for paper.

When large amounts of data need to be analyzed, the use of descriptive statistics can be a useful way of summarizing and interpreting the data and is the statistical method that I used for this research (Holcomb 1998). To calculate descriptive statistics, I chose Microsoft Excel which is a powerful analytic tool capable of handling a wide range of calculation tasks. It was also free and already available to me as I have a Microsoft Office license on my computer.

The first type of descriptive statistic calculated were basic percentages which are useful for comparing groups of unequal size (Holcomb 1998). Measures of central tendency were also used, which are figures such as mean (average), median (middle value), and mode (most frequent number) (Herkenhoff & Fogli 2013). With measures of central tendency known, I was also able to calculate the standard deviation to determine the variability in data from the average value. To discover any possible strong correlation between questions, the Pearson r statistic was used. For example, question number 16 states "I should <u>not</u> have to pay to visit any place in the National Park System if they get funding from tax dollars" and question number 17 states, "I would support paying more taxes to increase the budget for national parks." Though both questions have the topic of tax funding for national parks in common, they both ask about the topic in different ways that make it worth determining what type of correlation may exist, if any.

CHAPTER III

RESULTS

The information below is a data summary of each of the 24 questions that were included in my survey. This is followed by correlation coefficients for each possible paring of questions, numbered 9 – 20, as this was a set of scale questions with identical scale number descriptions where strength of relationship could be determined. A total of 216 survey responses were collected from Millennial-aged participants; this number is the basis for each percentage figure reported, unless otherwise noted.

Figure 3.1: Survey Question #1- What is your age?

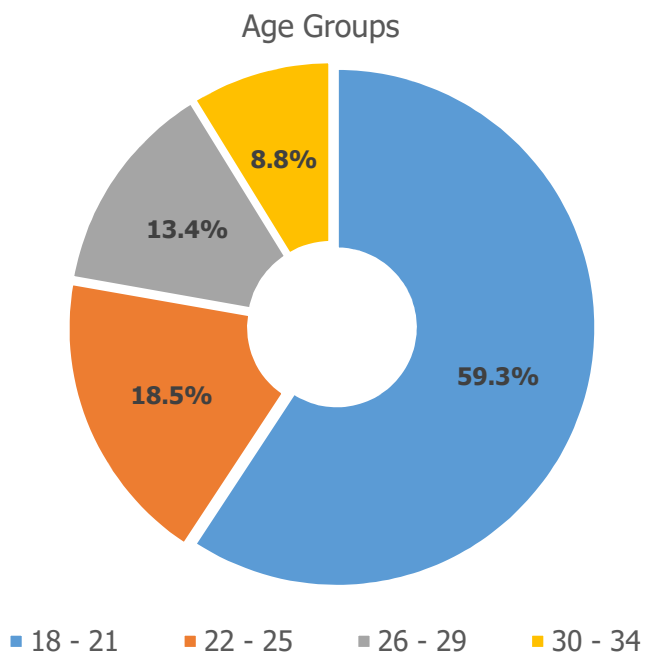

Table 3.1: Survey Question #1- What is your age?

Age Group	# of Respondents	% of Respondents
18 - 21	128	59.3%
22 - 25	40	18.5%
26 - 29	29	13.4%
30 - 34	19	8.8%

Figure 3.2: Survey Question #2- Are you a University of Colorado at Colorado Springs (UCCS) student?

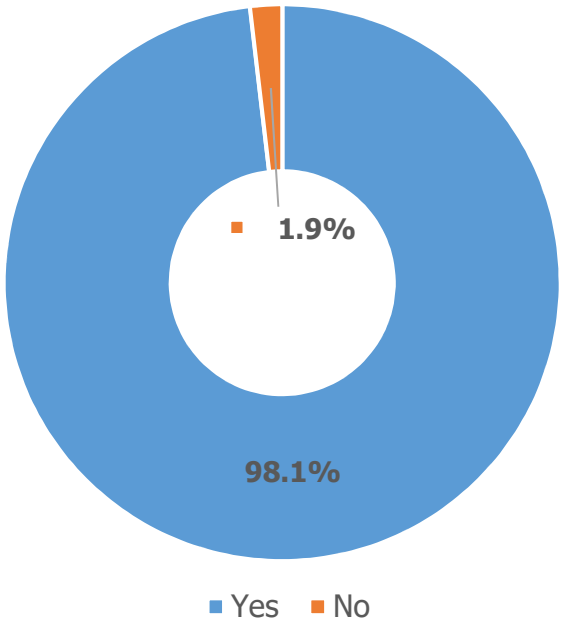

Table 3.2: Survey Question #2- Are you a University of Colorado at Colorado Springs (UCCS) student?

UCCS Student	# of Respondents	% of Respondents
Yes	212	98.1%
No	4	1.9%

Figure 3.3: Survey Question #3- What is your major?

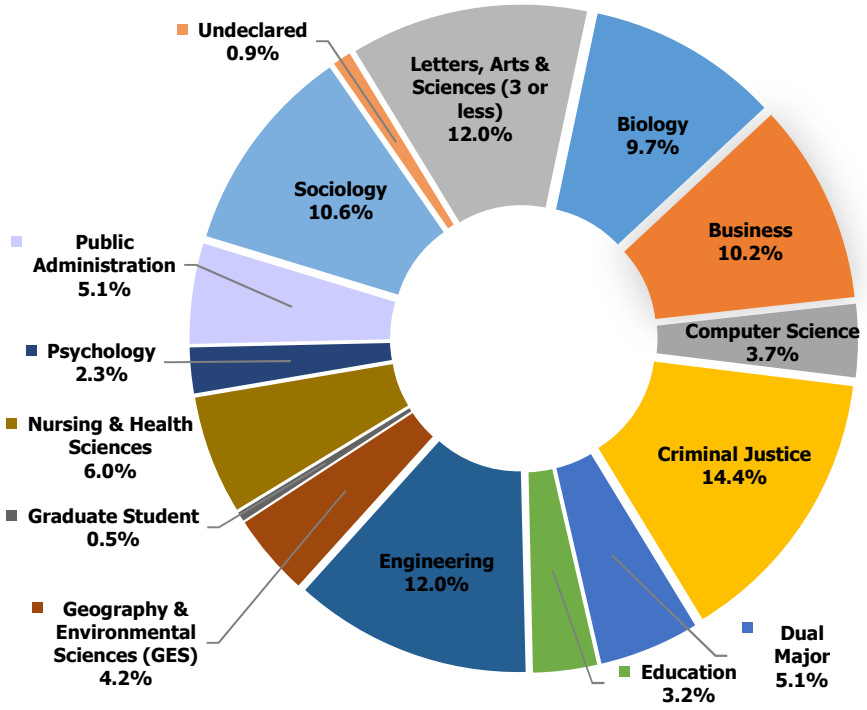

Table 3.3: Survey Question #3- What is your major?

Major	# of Respondents	% of Respondents
Criminal Justice	31	14.4%
Engineering	26	12.0%
Letters, Arts & Sciences (3 or less respondents)	26	12.0%
Sociology	23	10.6%
Business	22	10.2%
Biology	21	9.7%
Nursing & Health Sciences	13	6.0%
Dual Major	11	5.1%
Public Administration	11	5.1%
Geography & Environmental Sciences (GES)	9	4.2%
Computer Science	8	3.7%
Education	7	3.2%
Psychology	5	2.3%
Undeclared	2	0.9%
Graduate Student	1	0.5%

Figure 3.4: Survey Question #4- What is your gender?

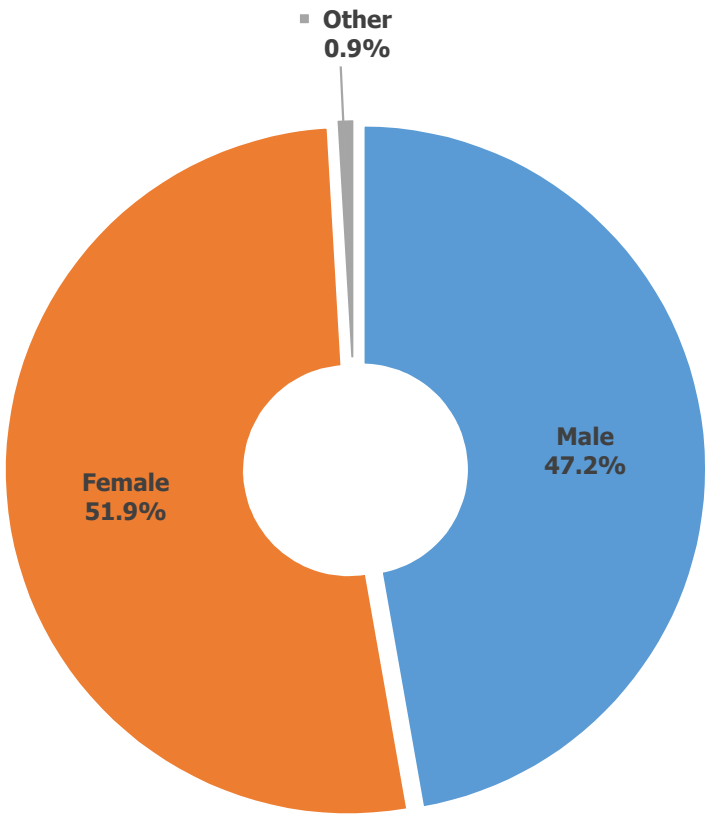

Table 3.4: Survey Question #4- What is your gender?

Gender	# of Respondents	% of Respondents
Male	102	47.2%
Female	112	51.9%
Other	2	0.9%

Figure 3.5: Survey Question #5- What is your ethnicity?

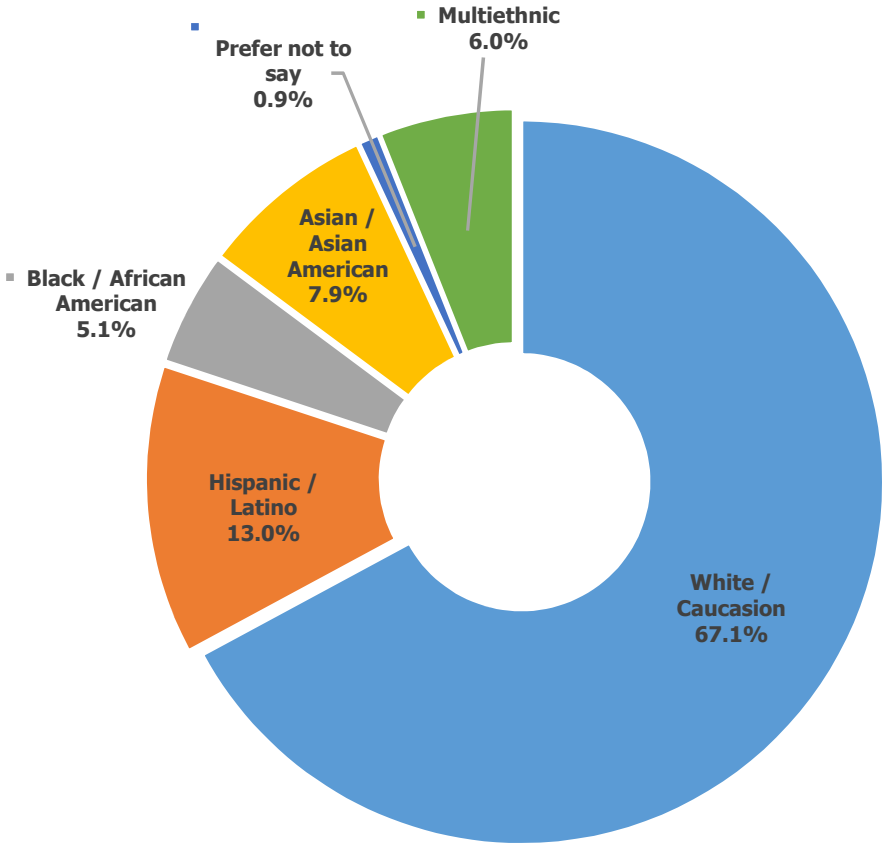

Table 3.5: Survey Question #5- What is your ethnicity?

Ethnicity	# of Respondents	% of Respondents
white/Caucasian	145	67.1%
Hispanic/Latino	28	13.0%
Black/African American	11	5.1%
Asian / Asian American	17	7.9%
Prefer not to say	2	0.9%
Multiethnic	13	6.0%

Figure 3.6: Survey Question #6- Where have you spent the majority of your life?

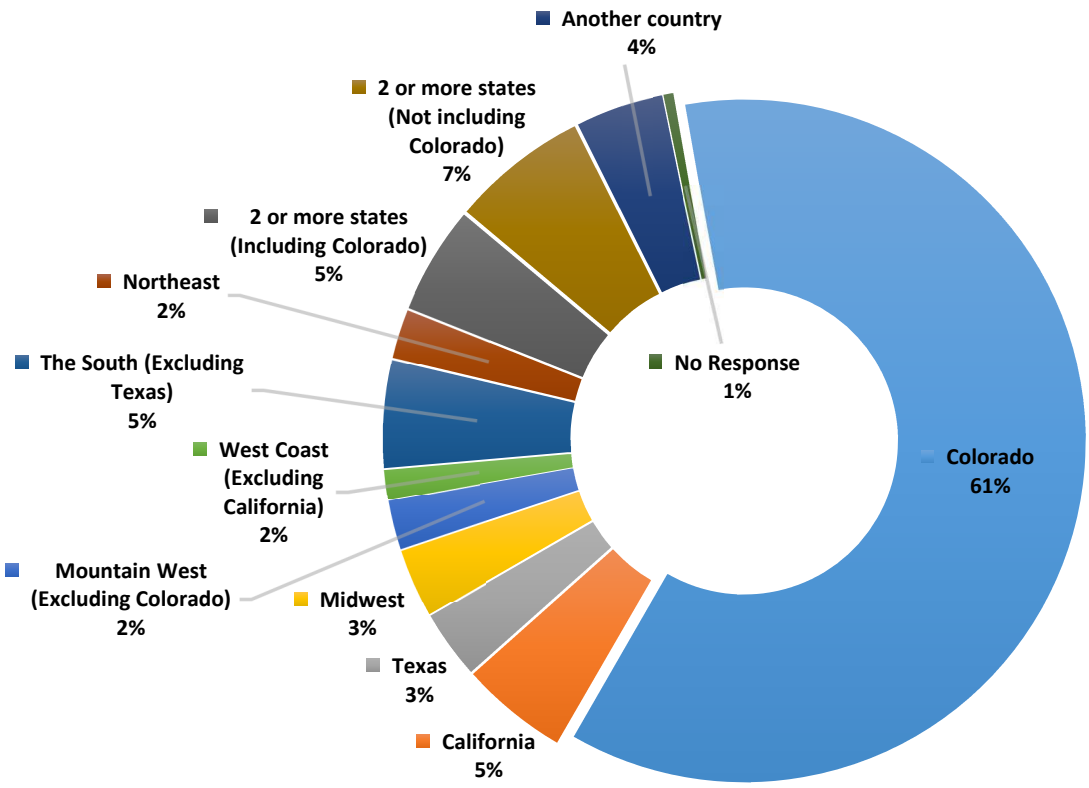

Table 3.6: Survey Question #6- Where have you spent the majority of your life?

Region	# of Respondents	% of Respondents
Colorado	132	61.1%
2 or more states (Not including Colorado)	14	6.5%
California	11	5.1%
The South (Excluding Texas)	11	5.1%
2 or more states (Including Colorado)	11	5.1%
Another country	9	4.2%
Texas	7	3.2%
Midwest	7	3.2%
Mountain West (Excluding Colorado)	5	2.3%
Northeast	5	2.3%
West Coast (Excluding California)	3	1.4%
No Response	1	0.5%

Table 3.7: Survey Question #6- Where have you spent the majority of your life? (States Included in Each Region)

States Included in Each Region		
Midwest	=	Illinois, Kansas, Missouri, Ohio
Mountain West (Excluding Colorado)	=	Arizona, Nevada, New Mexico, Wyoming
West Coast (Excluding California)	=	Oregon, Washington, Hawaii
The South (Excluding Texas)	=	Florida, Kentucky, Louisiana, Oklahoma, Tennessee, Virginia
Northeast	=	Connecticut, New York, Rhode Island
2 or more states (Including Colorado)	=	Any combination of states
2 or more states (Not including Colorado)	=	Any combination of states

Figure 3.7: Survey Question #7- Have you ever been to a place in the National Park System?

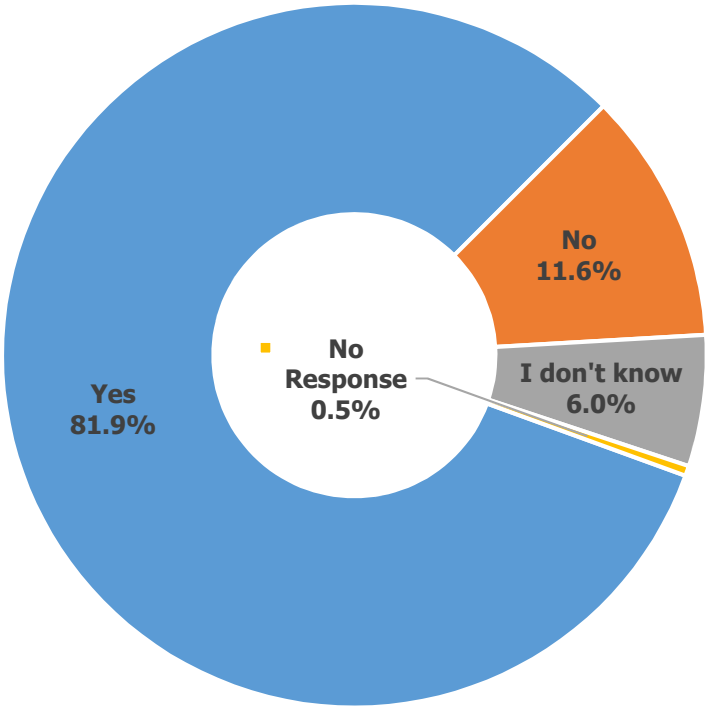

Table 3.8: Survey Question #7- Have you ever been to a place in the National Park System?

Visited NPS site	# of Respondents	% of Respondents
Yes	177	81.9%
No	25	11.6%
I don't know	13	6.0%
No Response	1	0.5%

Figure 3.8: Survey Question #8- Approximately how many places, that you are aware of, are managed by the National Park Service?

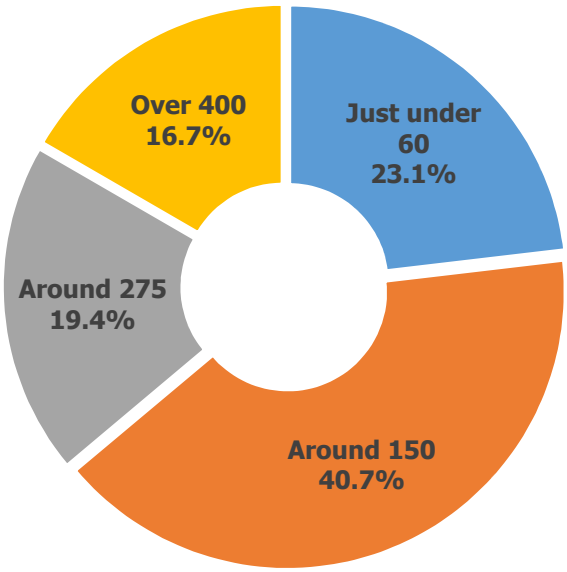

Table 3.9: Survey Question #8- Approximately how many places, that you are aware of, are managed by the National Park Service?

Number of NPS sites	# of Respondents	% of Respondents
Just under 60	50	23.1%
Around 150	88	40.7%
Around 275	42	19.4%
Over 400	36	16.7%

Figure 3.9: Survey Question #9- How likely are you to visit a place in the National Park System, within the next 12 months?

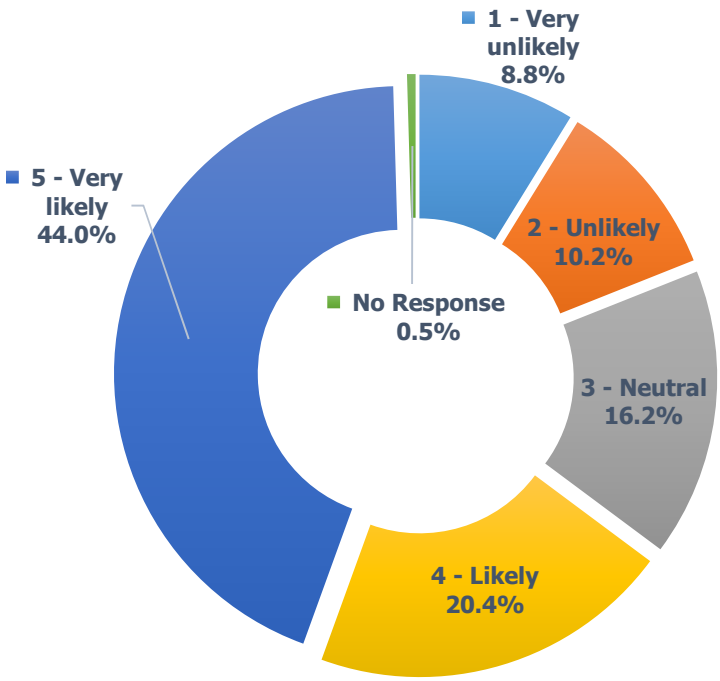

Table 3.10: Survey Question #9- How likely are you to visit a place in the National Park System, within the next 12 months?

Response Description	# of Respondents	% of Respondents
1 - Very unlikely	19	8.8%
2 - Unlikely	22	10.2%
3 - Neutral	35	16.2%
4 - Likely	44	20.4%
5 - Very likely	95	44.0%
No Response	1	0.5%
Mean (Average)	**3.81**	
Variance	1.78	
Standard Deviation	1.33	

Figure 3.10: Survey Question #10- How high is your desire to visit a place in the National Park System, within the next 12 months?

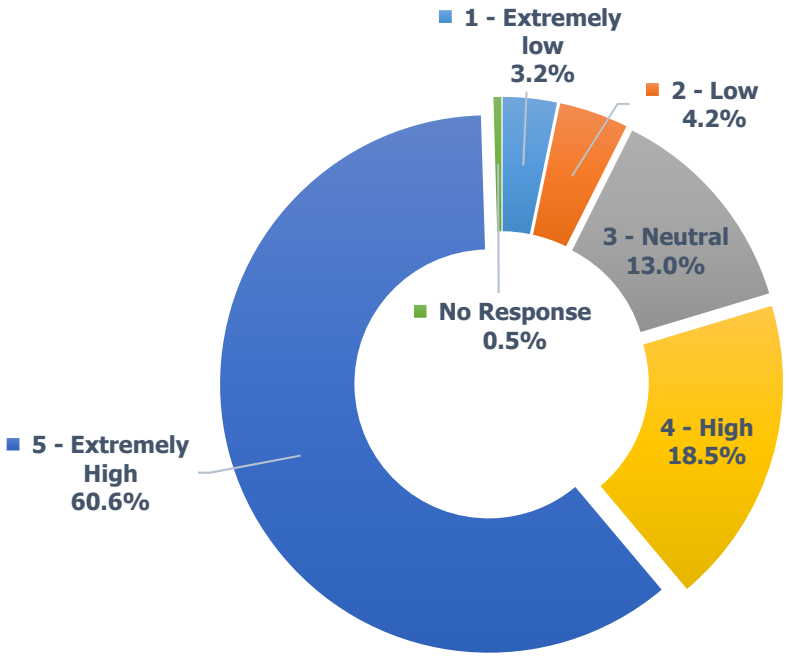

Table 3.11: Survey Question #10- How high is your desire to visit a place in the National Park System, within the next 12 months?

Response Description	# of Respondents	% of Respondents
1 - Extremely low	7	3.2%
2 - Low	9	4.2%
3 - Neutral	28	13.0%
4 - High	40	18.5%
5 - Extremely High	131	60.6%
No Response	1	0.5%
Mean (Average)	**4.29**	
Variance	1.12	
Standard Deviation	1.06	

Figure 3.11: Survey Question #11- In your opinion, how much are our National Parks tied to American identity?

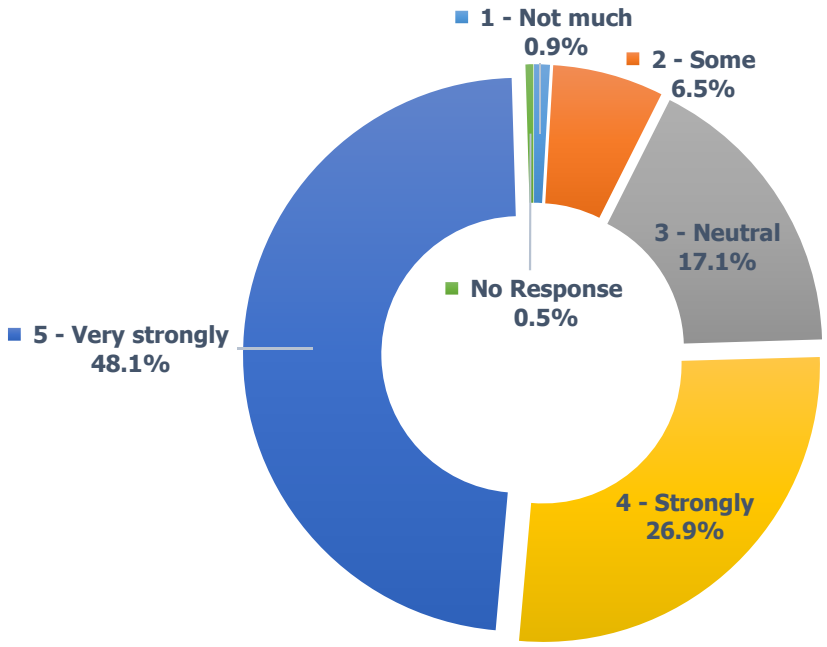

Table 3.12: Survey Question #11- In your opinion, how much are our National Parks tied to American identity?

Response Description	# of Respondents	% of Respondents
1 - Not much	2	0.9%
2 - Some	14	6.5%
3 - Neutral	37	17.1%
4 - Strongly	58	26.9%
5 - Very strongly	104	48.1%
No Response	1	0.5%
Mean (Average)	**4.15**	
Variance	0.98	
Standard Deviation	0.99	

Figure 3.12: Survey Question #12- How important is the National Park System, as a whole, to you?

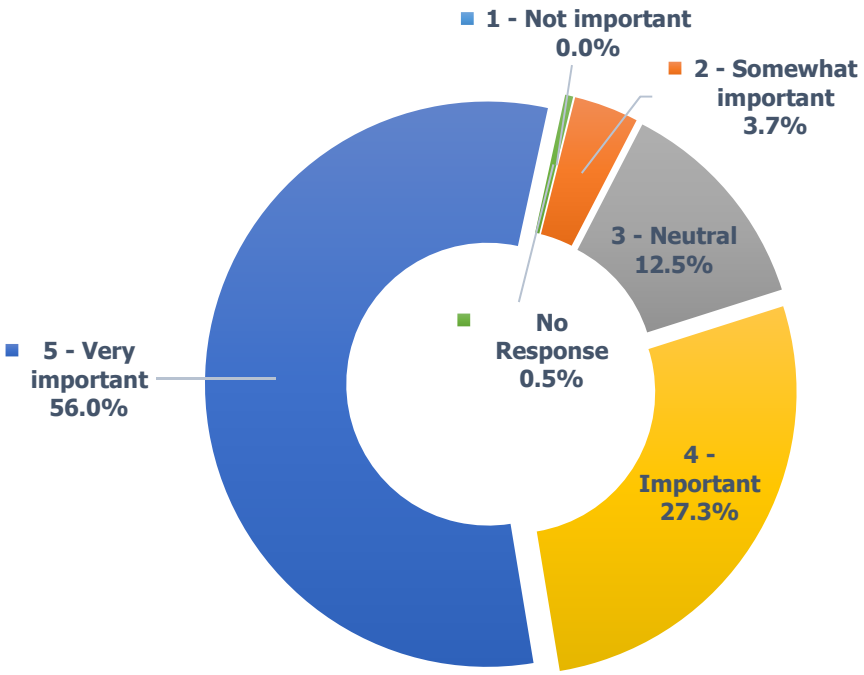

Table 3.13: Survey Question #12- How important is the National Park System, as a whole, to you?

Response Description	# of Respondents	% of Respondents
1 - Not important	0	0.0%
2 - Somewhat important	8	3.7%
3 - Neutral	27	12.5%
4 - Important	59	27.3%
5 - Very important	121	56.0%
No Response	1	0.5%
Mean (Average)	**4.36**	
Variance	0.71	
Standard Deviation	0.84	

Figure 3.13: Survey Question #13- "All national parks are equally valuable/important regardless of their level of fame or spectacular scenery."

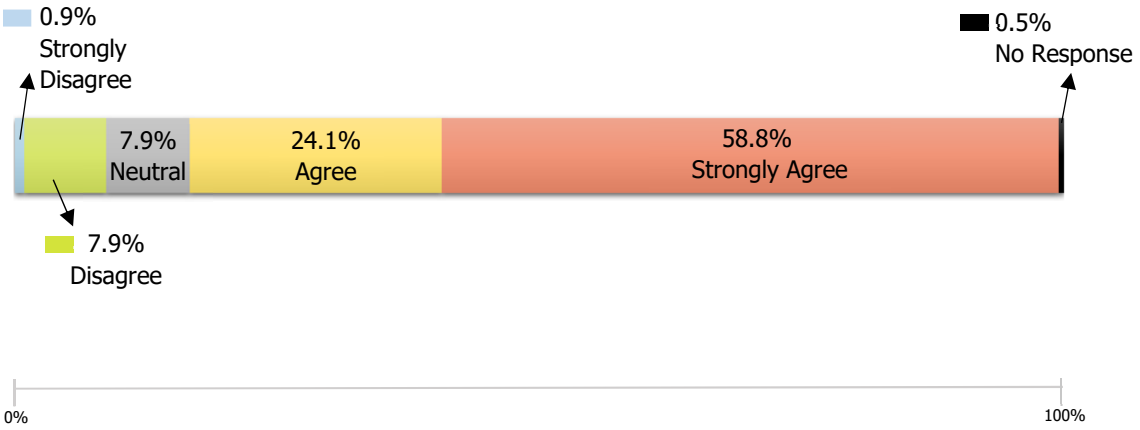

Table 3.14: Survey Question #13- "All national parks are equally valuable/important regardless of their level of fame or spectacular scenery."

Response Description	% of Respondents	# of Respondents
1 - Strongly disagree	0.9%	2
2 - Disagree	7.9%	17
3 - Neutral	7.9%	17
4 - Agree	24.1%	52
5 - Strongly agree	58.8%	127
No Response	0.5%	1
Mean (Average)	**4.33**	
Variance	0.97	
Standard Deviation	0.98	

Figure 3.14: Survey Question #14- "I would like to visit lesser-known places in National Park System, even if they are not as famous as a place like Yellowstone."

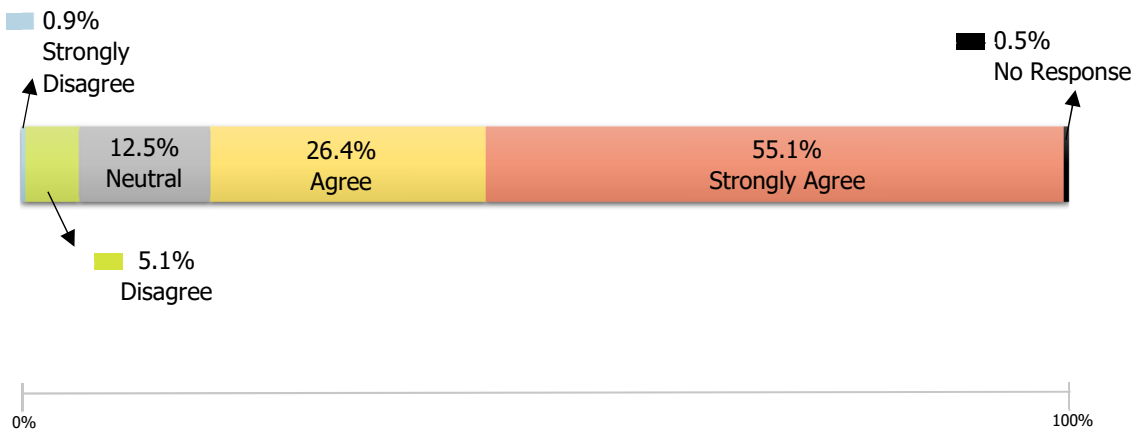

Table 3.15: Survey Question #14- "I would like to visit lesser-known places in National Park System, even if they are not as famous as a place like Yellowstone."

Response Description	% of Respondents	# of Respondents
1 - Strongly disagree	0.5%	1
2 - Disagree	5.1%	11
3 - Neutral	12.5%	27
4 - Agree	26.4%	57
5 - Strongly agree	55.1%	119
No Response	0.5%	1
Mean (Average)	**4.31**	
Variance	0.83	
Standard Deviation	0.91	

Figure 3.15: Survey Question #15- "Having a memorable experience in a national park with family and/or friends is more important to me than anything I would see while visiting a national park."

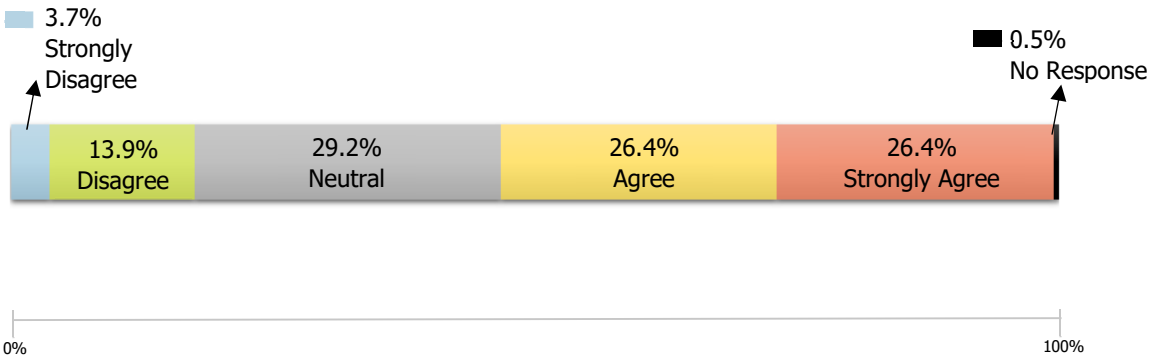

Table 3.16: Survey Question #15- "Having a memorable experience in a national park with family and/or friends is more important to me than anything I would see while visiting a national park."

Response Description	% of Respondents	# of Respondents
1 - Strongly disagree	3.7%	8
2 - Disagree	13.9%	30
3 - Neutral	29.2%	63
4 - Agree	26.4%	57
5 - Strongly agree	26.4%	57
No Response	0.5%	1
Mean (Average)	**3.58**	
Variance	1.28	
Standard Deviation	1.13	

Figure 3.16: Survey Question #16- "I should not have to pay to visit any place in the National Park System if they get funding from tax dollars."

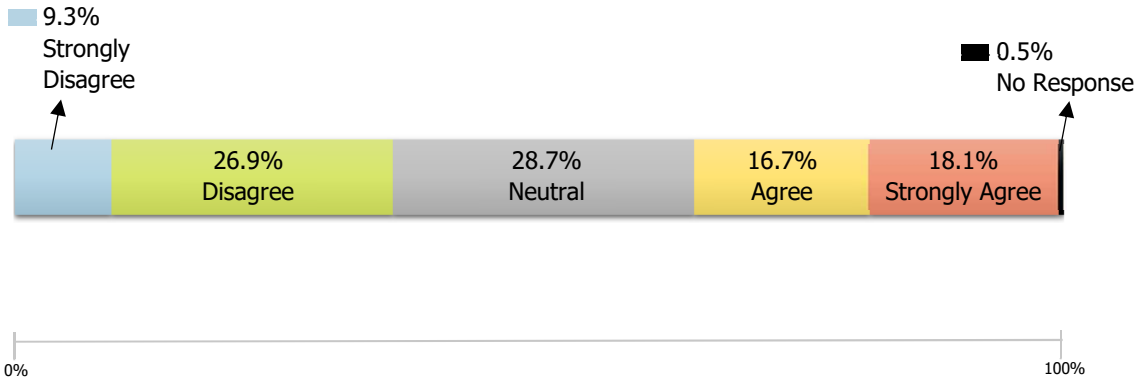

Table 3.17: Survey Question #16- "I should not have to pay to visit any place in the National Park System if they get funding from tax dollars."

Response Description	% of Respondents	# of Respondents
1 - Strongly disagree	9.3%	20
2 - Disagree	26.9%	58
3 - Neutral	28.7%	62
4 - Agree	16.7%	36
5 - Strongly agree	18.1%	39
No Response	0.5%	1
Mean (Average)	**3.07**	
Variance	1.54	
Standard Deviation	1.24	

Figure 3.17: Survey Question #17- "I would support paying more taxes to increase the budget for national parks."

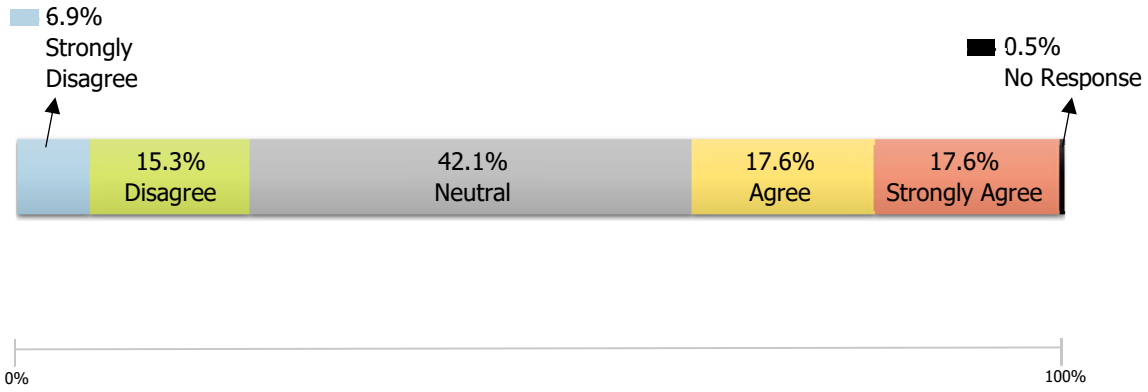

Table 3.18: Survey Question #17- "I would support paying more taxes to increase the budget for national parks."

Response Description	% of Respondents	# of Respondents
1 - Strongly disagree	6.9%	15
2 - Disagree	15.3%	33
3 - Neutral	42.1%	91
4 - Agree	17.6%	38
5 - Strongly agree	17.6%	38
No Response	0.5%	1
Mean (Average)	**3.24**	
Variance	1.27	
Standard Deviation	1.13	

Figure 3.18: Survey Question #18- "The entry fee to enter the most popular places in the National Park System should be raised to a point that helps reduce overcrowding and degradation."

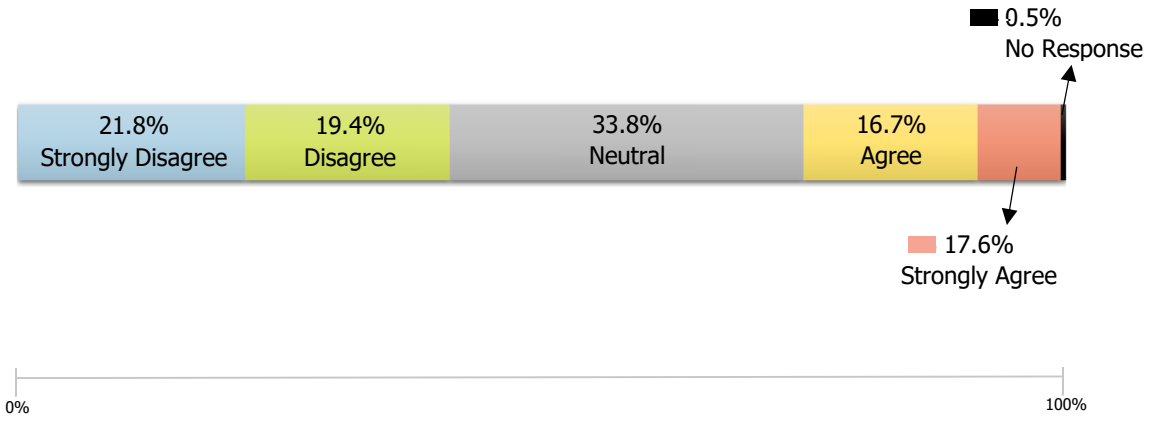

Table 3.19: Survey Question #18- "The entry fee to enter the most popular places in the National Park System should be raised to a point that helps reduce overcrowding and degradation."

Response Description	% of Respondents	# of Respondents
1 - Strongly disagree	21.8%	47
2 - Disagree	19.4%	42
3 - Neutral	33.8%	73
4 - Agree	16.7%	36
5 - Strongly agree	7.9%	17
No Response	0.5%	1
Mean (Average)	**2.69**	
Variance	1.47	
Standard Deviation	1.21	

Figure 3.19: Survey Question #19- "I do not support privatization of national parks as their federal ownership remains an important feature."

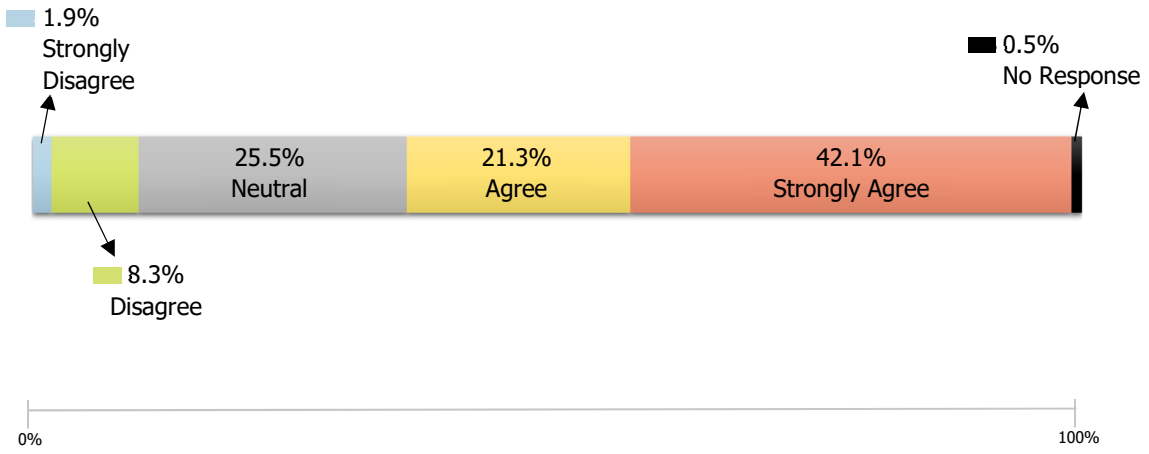

Table 3.20: Survey Question #19- "I do not support privatization of national parks as their federal ownership remains an important feature."

Response Description	% of Respondents	# of Respondents
1 - Strongly disagree	1.9%	4
2 - Disagree	8.3%	18
3 - Neutral	25.5%	55
4 - Agree	21.3%	46
5 - Strongly agree	42.1%	91
No Response	0.9%	2
Mean (Average)	**3.94**	
Variance	1.19	
Standard Deviation	1.09	

Figure 3.20: Survey Question #20- "National parks should <u>not</u> be under federal control, but rather under the control of the state in which each national park resides."

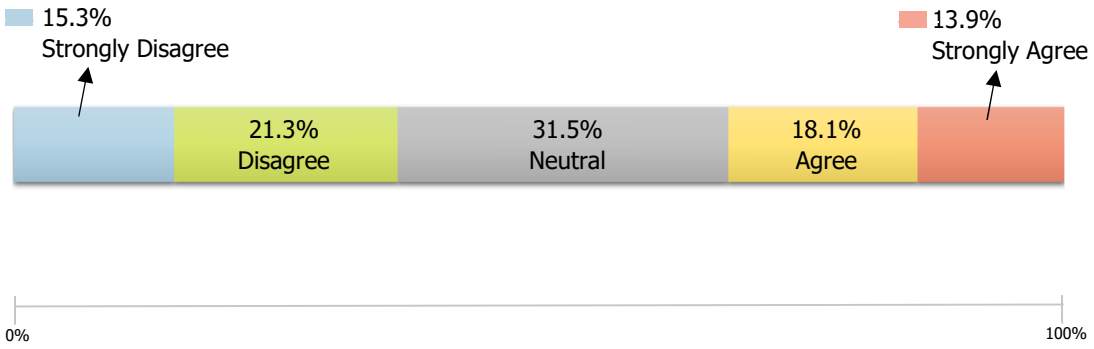

Table 3.21: Survey Question #20- "National parks should <u>not</u> be under federal control, but rather under the control of the state in which each national park resides."

Response Description	% of Respondents	# of Respondents
1 - Strongly disagree	15.3%	33
2 - Disagree	21.3%	46
3 - Neutral	31.5%	68
4 - Agree	18.1%	39
5 - Strongly agree	13.9%	30
No Response	0.0%	0
Mean (Average)	**2.94**	
Variance	1.56	
Standard Deviation	1.25	

The data presented for the open-ended questions below (21 – 24) has been summarized by displaying the frequency of categories that best represent the broad array of unique responses that were provided by respondents.

The data for questions 21 – 23 is visualized both with a Word Cloud and a table. The greater the size of the word representing a category in the Word Cloud, the more the category was mentioned by respondents. Some respondents provided only one response while others provided multiple for one question, and some gave no answer at all. This is the reason the total number of responses differs from the total number of surveys (216). Additionally, a list of the most notable responses is included for each question to provide greater depth and insight.

Figure 3.21: Survey Question #21- If you have ever been to a place in the National Park System, how would you describe the people, in general, who were there visiting with you? If you have never been to a national park, how would you describe the people, in general, that you would expect to encounter?

Table 3.22: Survey Question #21- If you have ever been to a place in the National Park System, how would you describe the people, in general, who were there visiting with you? If you have never been to a national park, how would you describe the people, in general, that you would expect to encounter?

Description	# of Mentions	% of Total Respondents
Nature & History Lovers	70	32.41%
Friendly	59	27.31%
Families	44	20.37%
Tourists	35	16.20%
Respectful	33	15.28%
Foreign	25	11.57%
Disrespectful	23	10.65%
Adventurous	10	4.63%
Old	9	4.17%
Enjoying	8	3.70%
Not Diverse	4	1.85%
Diverse	4	1.85%
Young	4	1.85%
Crowded	4	1.85%
Calm	4	1.85%
Athletic	3	1.39%
Locals	1	0.46%

Table 3.23: Survey Question #21- If you have ever been to a place in the National Park System, how would you describe the people, in general, who were there visiting with you? If you have never been to a national park, how would you describe the people, in general, that you would expect to encounter? (Notable Responses)

Survey Question #21 Notable Responses
"I met people from all over the US and all over the world while in Yellowstone, Grand Teton, and Grand Canyon. In smaller National Parks / historic places like RMNP or Rainier fewer people travel from as far away. People are usually friendly, inquisitive, but too often lazy. 90% of all visitors don't go more than 200yards beyond the road."
"International visitors are very common. Most visitors are more about consuming more than appreciation. People want to take take take, consume, monetize. People don't know how to BE in nature and I think we need more cultural emphasis on appropriate nature skills and appreciation."
"Most were respectful and appreciative of the resource they were visiting/viewing/ interacting with...There are ALWAYS a couple of " Those Guys" that disregard warning signs, trail markers etc."

Survey Question #21 Notable Responses (Continued)
"Very diverse crowds! I always count how many languages I hear around me, people travel across the world to see the National Parks."
"They were unaware of how their actions could affect the park itself such as wanting to encounter the animals and treating it more as a zoo environment rather than a National Wildlife Park."
"Foreign, I always see more people from Foreign countries than I see American."
"I have been to several national parks. The people I generally see there are middle class white Americans. Very few minorities that I see at the parks--I assume this has to do with access and affordability issues that many cannot cover, it's a luxury--as well I have noticed a lot of foreign travelers visit."
"Depending upon the popularity of the park, locals are normally friendly, some "outsiders" do not value the natural boundaries/rules."
"I would expect to encounter people who enjoy being outdoors and around nature. Additionally, there would be some more tourist-y types who are just kind of there because it's something to do."
"Essentially, a stereotype. Within the last 10 years or so, it has become very difficult to enjoy being in the more popular parks due to the sheer amount of people that one encounters."
"People who were also interested in the awesome natural beauty of different parks and the history of our nation."

Figure 3.22: Survey Question #22- In your opinion, what would attract a more diverse visitor demographic—meaning one that is more representative of the U.S. population as a whole—to our national parks?

Table 3.24: Survey Question #22- In your opinion, what would attract a more diverse visitor demographic—meaning one that is more representative of the U.S. population as a whole—to our national parks?

Response	# of Mentions	% of Total Respondents
More Promotion, Outreach, & Education	73	33.80%
Cheaper or No Fees	39	18.06%
More Events, Attractions, & Accommodations	26	12.04%
Better Accessibility	24	11.11%
Don't Know	17	7.87%
Nothing	16	7.41%
Enhancement of Nature	14	6.48%
Greater Diversity	9	4.17%
Already Diverse	7	3.24%

Table 3.25: Survey Question #22- In your opinion, what would attract a more diverse visitor demographic—meaning one that is more representative of the U.S. population as a whole—to our national parks? (Notable Responses)

Survey Question #22 Notable Responses
"Better cell phone service, WiFi, using Pokémon Go."
"One of the main factors that I believe would attract a more diverse visitor is the local and cost. There are many national parks that are not as easily accessible, because of location and cost. Many individuals and families who are of lower socio-economic class do not have the luxury of experiencing such a resource. Maybe making the cost of entrance a bit more affordable would attract a more diverse visitor demographic."
"Perhaps a program that allows more people to visit the parks. Sometimes parks in another state are difficult to get to or take a long time to get to (ie say you live in the West but want to visit a park in the East). A program that allows people more to visit these parks could be beneficial, also allowing younger generations to be a part of the park (taking ownership)."
"Field days, tours, maybe some small amusement park"
"Better souvenirs?"
"I think that American national parks should stay American."
"Creating a park that has items for multiple demographics"
"More amusement, i.e.: horseback riding, concerts, food trucks, etc."

Survey Question #22 Notable Responses (Continued)

"I honestly don't think that the problem resides in our parks. In order to change the diversity of the people who our parks we would need to change the mindset of the community as a whole. But as we know that isn't fathomable. SO your only other option would be taking the nature out of national parks. People are different these days they don't care about nature or appreciate its beauty as our society has been brainwashed and dumbed down by technology and other material possessions."

"More Advertising, Make Nature "more mainstream""

"Good question. Many minorities have histories of exclusion from these places and/or have negative associations with places away from cities and structured environments. It is an unknown to many minorities. One main way would be to somehow get people of different ethnic backgrounds to work in these places to help open the door for visitors of different ethnicities to visit."

"Being silent"

"Better accessibility, very few are handicap friendly. Financially, there are a lot of poor who cannot afford to go to the parks."

"If the national parks charged less for admission and then charge less for other items once inside the park, I think that would make a more diverse visitor demographic because more families in America would be able to afford to go to the park."

"Trails that are more accessible to the elderly and children who are disabled."

"Make it possible to visit the National Parks without driving in your own car"

"I do not think attracting a visitor demographic that is representative of the U.S. population would be beneficial for the preservation of our national parks."

"I believe that if the national parks tried to attract every type of demographic, it wouldn't be a national park anymore. It must be understood that places can't appeal to everyone."

Figure 3.23: Survey Question #23- How would you recommend that the National Park Service use technology to assist its interpretive/educational efforts, if at all?

Table 3.26: Survey Question #23- How would you recommend that the National Park Service use technology to assist its interpretive/educational efforts, if at all?

Response	# of Mentions	% of Total Respondents
Park Communication	64	29.63%
Mobile Applications	40	18.52%
Promotion of Parks	32	14.81%
Social Media	28	12.96%
Interactivity	24	11.11%
Education	23	10.65%
Don't Use It	12	5.56%
Park Management	12	5.56%
Don't Know	11	5.09%
Minimally	7	3.24%
Fine As Is	2	0.93%

Table 3.27: Survey Question #23- How would you recommend that the National Park Service use technology to assist its interpretive/educational efforts, if at all? (Notable Responses)

Survey Question #23 Notable Responses
"The use of military and government installations to increase visitors through installations' Facebook, twitter, and other social media sites. Create their own social media sites and provide daily pictures of the uniqueness of each park."
"They should make an app where you can learn about all of the different parks, with like daily fun facts or "park of the week" or something, since everyone uses their phones more than anything."
"Perhaps some videos being shown at the parks about history etc. Something similar but much better than what is at the GOG visitors center."
"Using Digital Earth programs to show views of a National Park on that National Park's website"
"Short educational videos presented by way of small tablet like tools near the landmarks of the parks (such as Old Faithful with a small video on how geysers work)"
"Monitor most aspects of the park, people, animals, things"
"Signing and handicap accommodations"
"Educational videos and classroom visits with virtual park"

Survey Question #23 Notable Responses (Continued)
"I have no idea if they have social media or even a website. Easy advertising is just photos of the parks."
"Perhaps just get the word out about the Parks more to people who may not think of the Parks as something to do on the weekend. Make them more mainstream."
"I would use technology in interactive ways to get younger children that are used to technology interacting within the park instead of being on their phones the whole time."
"Have surveys after people visit"
"Be more present on social media and in mass media such as television and movies."
"I would say avoiding technology would be the best way to go. People usually visit parks to enjoy the nature and get away from the hustle and bustle of the technological world"
"Integrate the National Park Service with some kind of app for phones that can tell the visitor interesting facts about the park they are at."

Table 3.28: Survey Question #24- Please list all of the places you can name in Colorado that are a part of the greater National Park System.

Please see the following page (page 64) for table 3.28

Park Name	# of mentions	% of Respondents
Rocky Mountain National Park	**87**	40.3%
Great Sand Dunes	**59**	27.3%
Other places (only mentioned once)	**58**	26.9%
Mesa Verde National Park	**40**	18.5%
Garden of the Gods	**22**	10.2%
Estes Park	**21**	9.7%
Black Canyon of the Gunnison	**19**	8.8%
Pikes Peak	**13**	6.0%
Dinosaur National Monument	**12**	5.6%
Florissant Fossil Beds National Monument	**10**	4.6%
Pike National Forest	**8**	3.7%
San Isabel National Forest	**8**	3.7%
Rocky Mountain National Forest	**7**	3.2%
Eleven Mile	**6**	2.8%
Pikes Peak National Forest	**6**	2.8%
Red Rocks	**5**	2.3%
Yellowstone National Park	**5**	2.3%
Colorado National Monument	**4**	1.9%
Castlewood Canyon	**3**	1.4%
Mueller State Park	**3**	1.4%
Royal Gorge	**3**	1.4%
San Juan National Forest	**3**	1.4%
Buena Vista	**2**	0.9%
Cave of the Winds	**2**	0.9%
Cheyenne Mountain	**2**	0.9%
Curecanti	**2**	0.9%
Gunnison	**2**	0.9%
Hanging Lake	**2**	0.9%
Incline	**2**	0.9%
Sand Creek Massacre	**2**	0.9%
Seven Falls	**2**	0.9%

Other places (only mentioned once)	
All mountains & rivers	Maroon Bells
All ski resorts	McInnis Canyons
All state parks	Memorial Park
Barr Trail	Mirror Lakes
Bent's Old Fort	Monarch National Forest
Big Thompson	Mosquito Range
Blue Mesa	Mount Holly
Catamount	National Forests
Chaco Canyon	Ouray
Chatfield	Pike Forest National Park
Cliff Dwellings	Poudre River
Colorado Canyon	Routt County
Comanche Grasslands	Rye
Continental	Sangre de Cristo
Crystal Reservoir	Santa Fe Trail
Daniel's Park	South Park
Devils Tower	Steamboat Lake
Eagle Peak	Taylor Park
Farrish	The forest in Divide
Fish Creek	The Grasslands
Fossil Mines	The Uncompahgre Mountains
Four Corners	The Wet Mountains
Glenwood Canyon	The Zoo
Grays & Torreys Peak	U.S. Forest area
Happy Meadows	Uncompahgre National Park System
Helen Hunt Falls	white River National Park
Lake George	Yosemite
Lathrop	Yucca House
Longs Peak	Zapata

Total Named Places	420	100.0%
Total CO NPS Sites Properly Named	**237**	**56.4%**
Total CO NPS Sites Improperly Named	**183**	**43.6%**

Table Color Key

Part of National Park System Within CO

Places mentioned only once amongst all who responded

The tables below contain the correlation values for each pairing of scale questions from 9 – 20 as they were based on identical scales and therefore could be compared to each other to determine their strength of relationship. Each number is based on a scale of 1.00 to -1.00 where a 1.00 indicates a perfect positive correlation and a -1.00 indicates a perfect negative correlation; 0.00 indicates no correlation (Holcomb 1998). All correlation values were derived from the following formula: $Correl(X,Y) = \frac{\sum (x-\bar{x})(y-\bar{y})}{\sqrt{\sum (x-\bar{x})^2 \sum (y-\bar{y})^2}}$

Table 3.29: Survey Question #9 - #20 Correlation Values

Correlation Values by Question #							
Question 9 & 10	0.65	**Question 10 & 11**	0.30	**Question 11 & 12**	0.50	**Question 12 & 13**	0.35
Question 9 & 11	0.25	**Question 10 & 12**	0.45	**Question 11 & 13**	0.07	**Question 12 & 14**	0.59
Question 9 & 12	0.49	**Question 10 & 13**	0.23	**Question 11 & 14**	0.32	**Question 12 & 15**	-0.04
Question 9 & 13	0.18	**Question 10 & 14**	0.48	**Question 11 & 15**	0.05	**Question 12 & 16**	-0.19
Question 9 & 14	0.41	**Question 10 & 15**	-0.12	**Question 11 & 16**	-0.14	**Question 12 & 17**	0.25
Question 9 & 15	-0.02	**Question 10 & 16**	-0.18	**Question 11 & 17**	0.07	**Question 12 & 18**	0.12
Question 9 & 16	-0.19	**Question 10 & 17**	0.32	**Question 11 & 18**	0.07	**Question 12 & 19**	0.13
Question 9 & 17	0.36	**Question 10 & 18**	0.13	**Question 11 & 19**	0.12	**Question 12 & 20**	0.00
Question 9 & 18	0.01	**Question 10 & 19**	0.13	**Question 11 & 20**	-0.05		
Question 9 & 19	0.11	**Question 10 & 20**	0.00				
Question 9 & 20	0.07						
Question 13 & 14	0.41	**Question 14 & 15**	0.02	**Question 15 & 16**	0.16	**Question 16 & 17**	-0.09
Question 13 & 15	0.07	**Question 14 & 16**	-0.14	**Question 15 & 17**	-0.06	**Question 16 & 18**	-0.19
Question 13 & 16	-0.01	**Question 14 & 17**	0.32	**Question 15 & 18**	-0.05	**Question 16 & 19**	0.06
Question 13 & 17	0.30	**Question 14 & 18**	0.11	**Question 15 & 19**	-0.01	**Question 16 & 20**	0.19
Question 13 & 18	0.11	**Question 14 & 19**	0.08	**Question 15 & 20**	0.10		
Question 13 & 19	0.10	**Question 14 & 20**	-0.08				
Question 13 & 20	-0.11						
Question 17 & 18	0.07	**Question 18 & 19**	-0.18	**Question 19 & 20**	-0.28		
Question 17 & 19	0.27	**Question 18 & 20**	-0.01				
Question 17 & 20	-0.15						

Table 3.30: Survey Question #9 - #20 Correlation Values (Greatest to Least)

Correlation Value (Greatest to Least)			
Question 9 & 10	0.65	Question 11 & 18	0.07
Question 12 & 14	0.59	Question 11 & 13	0.07
Question 11 & 12	0.50	Question 13 & 15	0.07
Question 9 & 12	0.49	Question 11 & 17	0.07
Question 10 & 14	0.48	Question 17 & 18	0.07
Question 10 & 12	0.45	Question 9 & 20	0.07
Question 13 & 14	0.41	Question 16 & 19	0.06
Question 9 & 14	0.41	Question 11 & 15	0.05
Question 9 & 17	0.36	Question 14 & 15	0.02
Question 12 & 13	0.35	Question 9 & 18	0.01
Question 11 & 14	0.32	Question 10 & 20	0.00
Question 14 & 17	0.32	Question 12 & 20	0.00
Question 10 & 17	0.32	Question 13 & 16	-0.01
Question 10 & 11	0.30	Question 15 & 19	-0.01
Question 13 & 17	0.30	Question 18 & 20	-0.01
Question 17 & 19	0.27	Question 9 & 15	-0.02
Question 9 & 11	0.25	Question 12 & 15	-0.04
Question 12 & 17	0.25	Question 15 & 18	-0.05
Question 10 & 13	0.23	Question 11 & 20	-0.05
Question 16 & 20	0.19	Question 15 & 17	-0.06
Question 9 & 13	0.18	Question 14 & 20	-0.08
Question 15 & 16	0.16	Question 16 & 17	-0.09
Question 10 & 18	0.13	Question 13 & 20	-0.11
Question 10 & 19	0.13	Question 10 & 15	-0.12
Question 12 & 19	0.13	Question 14 & 16	-0.14
Question 12 & 18	0.12	Question 11 & 16	-0.14
Question 11 & 19	0.12	Question 17 & 20	-0.15
Question 9 & 19	0.11	Question 18 & 19	-0.18
Question 14 & 18	0.11	Question 10 & 16	-0.18
Question 13 & 18	0.11	Question 16 & 18	-0.19
Question 13 & 19	0.10	Question 12 & 16	-0.19
Question 15 & 20	0.10	Question 9 & 16	-0.19
Question 14 & 19	0.08	Question 19 & 20	-0.28

CHAPTER IV

DISCUSSION

In having conducted both a preliminary focus group and a 24-question survey, I was able to derive many insights from the results of each study regarding Millennials and their attitudes and values towards national parks. The results were intriguing in that some were in line with what I expected, based on the literature review, while others were not. I will elaborate on my interpretation of these results starting with the focus group and then do the same for each of the various topics covered in the survey.

The Focus Group

Possibly the most significant data gathered from the focus group almost failed to be discovered. In responding to the final question asked of the focus group, "If the National Park Service asked you for advice on what they should do to stay relevant to Americans 100 years from now, what would you tell them?", one of the participants replied "Maybe we shouldn't be telling people about them (national parks). . .". The response was motivated by this particular participant's frustration with overcrowding and noticing large amounts of litter at some of the outdoor recreational places they had recently visited. It was this response that prompted another participant to put forth the idea of privatization as a solution for dealing with issues such as overcrowding and maintenance. Upon asking for further clarification from the formerly mentioned participant of how privatization

might alleviate these problems, they explained that government does not operate very efficiently and that parks being managed under a private entity could result in more efficient management. It was also their belief that privatization would implement a pricing structure that would better reflect demand and thus reduce overcrowding. After this pro-privatization participant explained their position, all of the other group members seemed to be open to the idea to some degree. While this could have been a result of conformity amongst the group (Skop 2006), I did not suspect this to be the case as throughout the session all participants appeared to maintain their individualism. To be clear, I was not able to determine whether private management of national park operations versus complete private ownership was what the group had in mind as this topic came up after we had gone well over the two-hour allotment of time. Regardless, the idea was intriguing, unexpected and resulted in the creation of questions 19 and 20 (see Appendix A), which will be discussed more later.

Demographics

The demographic questions were perhaps the least exciting of all my survey questions, but they demonstrated that I had achieved a diverse population for a convenience sample. Considering that this survey was conducted on a college campus, it was no surprise that most the millennial-aged respondents, 59.3%, were 18-21 year olds; however, a little more than 40% of respondents covered the remaining age span of 22-34. Additionally, I was able to

achieve sample diversity in the following ways: a male to female response rate of 47.2% male vs. 51.9% female; 61.1% of respondents had spent a majority of their lives exclusively in Colorado while 38.4% had primarily lived elsewhere (0.5% did not respond); and respondents came from a wide array of majors representing various colleges and departments on campus. In terms of ethnicity, the best confirmation of the quality in diversity of my sample comes from the Facts and Figures page of the University of Colorado at Colorado Springs' web page which states that as of fall 2016, 31% of all UCCS students were minority (this is also the same time in which the survey was conducted); my survey sample composed of 32% non-white respondents—which suggests a good representation of student ethnicity at the university as a whole.

Respondents Who Have Visited NPS Sites

The start of the primary survey questions began with question #7 which determined how many respondents had ever visited a place in the national park system. Of all the respondents, a large majority—a little over 80%, or four in five—had reported doing so. This was not the case for Black/African American respondents; though there were only 11, just four, or 36.4%, had reported ever visiting any place in the national park system. In some cases, people may be unclear as to whether they have or have not visited a national park unit—if the respondent was not able to distinguish between a place being a state park, national forest, or national park site, or if they did not remember going. However, this did not seem to be due to uncertainty as zero Black/African

American respondents answered with "I don't know" to the question—further suggesting, as the literature review did, a failure of the NPS to connect with African Americans.

How Many NPS Sites?

Question #8 was significant in gaining an understanding of participant's knowledge for the number of places under the management of the NPS. Four different options were given: "Just under 60" (1); "Around 150" (2); "Around 275" (3); and "Over 400" (4). My initial assumption in asking this question was that most would account for many of the flagship parks—and perhaps some national monuments—in their answer but that few would select the correct answer of "Over 400". This assumption turned out to be correct. The average response for this question was 2.30, indicating a consensus closer to "Around 150"—far less than "Over 400." It is clear that for a majority of respondents, the extent of the lands the NPS manages is greatly underestimated. While it is not imperative that the exact number of NPS sites be common knowledge of the general public, it is important that there be better knowledge of at least the ball park figure. With a strained budget, it is necessary to know that financial resources are spread thin across more than 400 NPS sites as opposed to around 150—especially as new sites are added to the inventory.

What Is the Potential for A NPS Visit?

Questions #9 and #10 gauged the respondents' potential for a visit to a national park. In evaluating these questions from the perspective of the NPS, it, of course, would be ideal to find numbers corresponding to a high likelihood of going along with high desire of going. However, I believe even if likelihood of going is low, the more important result to assess would be desire of going. It is one thing for obstacles such as time, distance, or finances to prevent a visit—which could eventually be overcome if desire to visit is high enough—but it would be much more worrisome to discover a general lack of interest in visiting a national park—or in other words, a lack of relevancy.

Fortunately, this was not the case: The average response for question #9 (likelihood of visiting) was 3.81, between neutral (3) and likely (4) but leaning heavily towards likely, while the average response for question #10 (desire to visit) was 4.29, between high (4) and extremely high (5) but leaning towards high. In fact, of all the Millennial subgroup categories I analyzed for these two questions (see Appendix B), all the means for question #10 (regarding desire to visit) were higher than those of the same category for question #9 (regarding likelihood of a visit) by anywhere from a minimum of .24 (males) to .7 (females). Yet, while desire to visit may be high, it would be beneficial to understand the reasons behind likelihood of a visit being lower than that of desire to visit. Is it in fact a matter of too little vacation time, too great a distance to travel, not enough money, a combination of those reasons, or is it something else entirely?

Value of the NPS

Questions #11, #12, & #13 specifically measured the overall level of value Millennials place on national parks. One way I attempted to measure this was to determine the strength of relationship between these parks and American identity. If respondents considered national identity to be important, and national parks contribute significantly to this, then national parks would also be important. Therefore, the more respondents felt that national parks are tied to American identity, the better, as far as indicating how important Millennials feel these places are. For this question, the average response was 4.15 which corresponds to strong agreement.

Question #12 was the most direct question in assessing value by asking "How important is the NPS system, as a whole, to you?" With an average response of 4.36—between important (4) and very important (5)—national parks appear to be highly regarded by the Millennial respondents in this survey. What is also worth mentioning are some of the results of the subgroups. All of the non-white, multi-ethnic subgroup categories' average response values ranked below all other Millennial subgroups with the exception of Hispanic/Latino, which had the third highest average response of all the subgroup categories at 4.52. The lowest average response of all subgroups was Black/African American with an average response of 3.73, or between neutral (3) and important (4). As a whole just over 80% of Millennial respondents have visited an NPS site vs. 36.4% of Black/African Americans. With this in mind,3.73 is perhaps higher

ranking than would be expected for a subgroup that has visited the NPS system far less relative to others.

The goal of question #13 was to determine whether or not respondents viewed all NPS sites to be valuable/important regardless of how they compare to others—i.e. is a place like Rocky Mountain National Park held in higher regard to you than a place like Florissant Fossil Beds National Monument? The average response for this question was 4.33, showing solid agreement. This response shows that, in general, the Millennial respondents say they appreciate all NPS sites regardless of how they compare to others. This was especially true for Hispanic/Latino and Black/African American respondents whose average responses were both higher than all other subgroup categories, except for the 30-34 aged subgroup. It not clear why Hispanic/Latino and Black/African American respondents assigned higher rankings to this question than most of the other subgroups. It is possible that it is a clue of a value system for national parks that may in some ways differ for these two groups from the rest of their Millennial peers. If this is true, these differences need to be fully identified as they may provide promising areas of opportunity from which the NPS can capitalize on in the quest to increase visitation from these significant minority populations.

Lesser-known Park Sites

The statement "I would like to visit lesser-known places in the National Park System…" found the level of interest of respondents in exploring the greater NPS system, not just the flagship parks, for Question #14. With 413 units in the NPS inventory, Millennials should be strongly encouraged to explore these less traveled places in order to better understand the entirety of the agency's purpose first-hand. For those who have yet to see, or never will see, all 413 NPS units, nothing more than a photograph displaying the sublime landscapes of some parks may be enough to justify their importance. But other units, particularly those that are not as well known, require looking beyond aesthetics to understand the intangible importance tied to their cultural, historical, and natural significance. Although question #12 shows that respondents regard the whole national park system as important, visiting lesser-known places with greater frequency may not only bring better understanding of their importance but also maintain or increase their relevancy.

The average response for question #14 was 4.31—between agree (4) and strongly agree (5) but leaning towards agree. This answer also further validates previous responses to both questions #12 & 13, as they all show nearly identical strengths of agreement. Again, there are also interesting pieces of data to point out from the ethnic subgroup categories for question #14: the average response for Hispanic/Latinos was the second highest at 4.52 while that of Black/African Americans was the lowest and considerably lower relative to the other subgroups

at 3.55—between neutral (3) and agree (4). What this suggests is that while Millennials, as a whole, have a desire to visit lesser-known places, the Hispanic/Latinos in this survey have an even higher desire to do so. On the other hand, Black/African Americans indicated relatively little desire to visit lesser-known sites.

Social Experience vs. Setting

In revisiting the literature review, it is mentioned that the Millennial generation places a premium on the time they spend with family and friends to enrich their lives. Therefore, question #15 sought to differentiate what kind of experience was of greater importance for visiting a national park: viewing the physical surroundings of the park or creating memories with family and friends with the park as the backdrop. Here, respondents were asked to respond to the following statement "Having a memorable experience in a national park with family and/or friends is more important to me than anything I would see while visiting a national park." The average response was 3.58, nearly split between neutral (3) and agree (4). This response seems to indicate a balance that shows a very slight edge towards emphasizing the quality of the experience with friends and family, but that the characteristics of the location also play a part in the overall experience.

This overall sentiment is slightly different when comparing non-white subgroups to white/Caucasian. The five highest average responses for question

#15 are made up entirely of non-white subgroups with a range of 4.06 to 3.77. In contrast, the white/Caucasian subgroup's average response was the second lowest at 3.43. The differences between the subgroups here, white vs. those that are non-white, may illustrate the differences between what attracts, or would attract, ethnically diverse visitors. If non-white groups place a higher value on their experience with family and/or friends, it is imperative for the NPS to maximize their ability to provide a greater number of group camping and picnic areas, as well as explore interpretive programs that specifically engage families. An insight like this is significant as it could influence future planning and design of NPS sites.

Tax Funding & Affordability

Questions #16, #17, and #18 evaluated opinions on tax funding and affordability of admission into NPS parks. The average response for question #16—which asks: "I should <u>not</u> have to pay to visit any place in the National Park System if they get funding from tax dollars"—indicates an almost perfectly neutral attitude (3.07) towards paying an entrance fee despite also paying taxes that help fund national parks. Interestingly, in comparison to the other subgroup categories, the average response of Black/African Americans and Hispanic/Latinos for question #16 varied from the mean significantly and in opposite directions from each other. For Black/African Americans the response was 3.82—between an indicator of neutral (3) to agree (4)—indicating that, collectively, Black/African American respondents lean towards not paying NPS

admission fees if they are already funded by taxes. On the other hand, Hispanic/Latinos had a response of 2.67, between neutral and disagree (2)—which suggests Hispanic/Latino respondents were less averse, more so than any other subgroup, to paying NPS admission fees despite also paying taxes that trickle into the NPS budget. Based only the results of my survey, this suggests that Hispanic/Latinos are more willing to demonstrate their value of national parks financially than the rest of their Millennial counterparts. If this is true of Hispanic/Latinos on a national level, this would be highly encouraging for the NPS given the dire need for additional funding coupled with their need to attract more Hispanic/Latino visitors.

Question #17 explores willingness to pay more in taxes in order to increase the budget for national parks on a scale of 1 (Strongly disagree with paying more) to 5 (Strongly agree with paying more). The average response for this question was 3.24—between neutral (3) and agree (4)—indicating an attitude that slightly supports increasing taxes to support the NPS. The subgroups that were based on age for this question were particularly noteworthy as they did not align with what I was expecting. 18-21 year olds had an average response of 3.09, almost perfectly neutral, yet the remainder of Millennials had higher average responses by anywhere from .23 (26-29 year olds) to .65 (30-34 year olds)—showing stronger willingness to pay more in taxes for national parks. These response numbers seem to suggest a trend of increasing willingness to pay more in taxes for national parks as age increases, which is true if only

looking at Millennials in the survey sample. Because 18 non-millennial respondents (older than 34 years) also participated in the survey (this data was excluded from the 216 millennial responses), I was also able to record an average response for a subgroup of those 35 or older, which was 2.89—between neutral and disagree (2).

Why is the response of the 18-21 year olds more closely aligned with that of those 35 or older than it is with the rest of their Millennial peers? Is there an ideological shift happening amongst younger Millennials in regard to paying taxes? My best guess is perhaps due to a similar state of mind in regard to personal finances. 18-21 year olds, on average, have lower incomes than older age groups and therefore may be more concerned about tax increases that decrease their after-tax income. Likewise, those 35 or older, may be more concerned about adding an additional financial obligation on top of other financial obligations—such as a mortgage, retirement funding, child care, health care, etc.—which may be greater in number than those of someone in a younger age group. Whatever the case, this is an interesting topic that would be worth further study to determine if there is truly an ideological shift occurring among younger Millennials. It would also be worth determining what would cause a shift in attitude after age 34 as this could be an important issue for the NPS to address.

The last question regarding tax funding and affordability, question #18, gauges the Millennial respondents' willingness to pay more for admission if the

price hike would help reduce overcrowding and degradation of natural resources in NPS parks. The average response was 2.69 (between neutral and disagree) and shows a tilt toward lack of support for paying more. When looking at the average response from each of the Millennial subgroup categories, Black/African American respondents show the greatest difference from the larger Millennial cohort with an average response of 2.00. Again, of all the subgroups, Black/African American respondents were the most averse to paying more to visit a national park, regardless if doing so helped reduce overcrowding and degradation. The response of Black/African American respondents is consistent with their response to question #16, in regard to their sentiment towards paying to enter a national park despite also paying taxes which contribute to the NPS' operational budget.

Perhaps the most significant takeaway from this group of questions (#16, 17, & 18) is that while the responses indicate mostly neutral attitudes towards increases in taxes for NPS funding, survey respondents were slightly opposed to paying higher entry fees. In 2015, many parks raised their entry fees, and if the 12.9-billion-dollar maintenance backlog continues to grow, it is likely the NPS will have no choice but to continue to raise fees (Rein 2015), unless Congress appropriates more annual funding or services are severely reduced. With a growing importance placed on attracting both younger and more diverse visitors, a greater frequency of fee increases may only make matters worse for the NPS.

According to a report by the Government Accountability Office, Congress reduced appropriations for the NPS by eight percent between 2005 and 2014, causing parks such as Shenandoah National Park in Virginia to become more dependent on entrance and recreation fees (Taylor 2016). The reason behind reduced funding for national parks, as explained by former Democratic aide on the House Appropriations Committee, Rick Healy, is Congress limiting non-defense discretionary spending in order to balance the federal budget. He also says that giving national parks more money requires taking it from other important government programs such as the Forest Service (especially for wildfires) and funding for the Centers for Disease Control and Prevention (Taylor 2016). If national parks are truly important to Millennials, they will need to make their political voice heard and place pressure on Congress to find a way to free up the funds that the NPS desperately needs. As of right now, this does not seem to be occurring at any noticeable level of significance.

State, Federal, or Private Control?

As mentioned previously, I added question #19 and #20 to the survey as a result of the focus group that I conducted prior to constructing the survey. These questions deal with the issue of privatization as well as federal vs. state control of national parks. Though state vs. federal control did not come up in the focus group, privatization tends to come up in the same conversation from opponents of state control. The opponents of state control—many environmental and sportsmen's organizations being the most prominent—argue that

privatization will be the end result for many of these prized lands should ownership ever be transferred to the states; and there is evidence to support this argument. For example, according to a report by the Wilderness Society, published in May of 2016, 41.4% of the federal land granted to Idaho at statehood in 1890 has been sold (The Wilderness Society 2016). Furthermore, a report by the Theodore Roosevelt Conservation Partnership claims that Nevada, which once held 2.7 million acres of State Trust Land, has a mere 3,000 acres left (Theodore Roosevelt Conservation Partnership n.d.). Yet, it cannot be assumed that if states were to take possession of federal public lands that any or all of it would become privatized.

Regardless of how much federal public land would or would not end up being privately owned, the motivation for transferring control is certainly tied to the economic productivity of those lands. A 2015 report by Fretwell and Regan titled *Divided Lands* for The Property and Environment Research Center (PERC)—a non-profit dedicated to "improving environmental quality through property rights and markets"—goes into great detail about the many financial inefficiencies of the federal land management agencies. The report puts forth logical arguments for transferring federal public lands, if only considering the potential to generate increased revenue and profit for their respective states and communities. Possibly the best summary of the 33-page report is in the following excerpt, "Not only do federal land agencies earn far less than state agencies, they outspend states by a wide margin on a per-acre basis. Federal land

expenditures are more than six times higher per acre than state expenditures. Moreover, state trust lands generate ten times more revenue per full-time employee than federal land agencies." (Fretwell and Regan 2015). A publication by another proponent for the transfer of federal public lands, American Lands Council (ALC), echoes the ideology of PERC in stating "The federal government loses 27 cents for every dollar it spends on land management, a loss to taxpayers of approximately $2 billion per year. States, on the other hand, generate on average $14.51 for every dollar they spend managing public lands." (American Lands Council Foundation, 2016 pg. 7).

Those against state control do not agree with the claim of states greatly increasing revenues from taking control of federal lands. In an interview with the *Casper Star-Tribune*, current Wyoming Republican governor, Matt Mead, expressed concern over his state being able to pay for land management expenses currently paid for by the federal government, especially wildfires (Hancock 2016). In a report by Brett French of the *Billings Gazette* it was estimated that a land transfer could cause a deficit of anywhere from $367 to $501 million for the state of Montana, largely due to all of the costs associated with wildfires (French 2014). With large deficits to balance as a result of greater costs associated with land management, land transfer opponents fear states will have no choice but to sell land in order to increase revenue (French 2014).

As far as non-governmental organizations go, PERC and ALC are prominent voices in advancing the idea of federal public land transfer to states.

PERC was founded in the early 1980s by challenging the idea that environmental problems could only be solved by the government. Instead, PERC promotes the idea of Free Market Environmentalism (FME)—which is "an approach to environmental problems that focuses on improving environmental quality using property rights and markets"—as a better solution. One of the core ideas behind FME states, "Markets and the process of exchange give people who have different ideas and values regarding natural resources a way to cooperate rather than fight. When cooperation supplants conflict, gains from trade emerge." (PERC n.d.)

ALC is a newer organization founded in 2012 to challenge what it views as mismanagement of public lands by the federal government, particularly in Western states. The organization holds this view based on the belief that, as a result of federal mismanagement, the U.S. has experienced "Record-setting catastrophic wildfires"; loss of access to our nation's natural resources that have "needlessly placed America at the mercy of foreign powers"; and, the "stifling of economic opportunity in western communities." One of the biggest issues motivating the political ideology of ALC centers on what it calls the "Federal Fault Line" which demonstrates the disproportionate ratio of federally controlled land in states west of Colorado compared to those east of the state border. ALC's solution for solving the problem of public land mismanagement by the federal government is to garner political support for the transfer of these lands to the

respective states in which they reside (American Lands Council Foundation 2016).

It is important to clarify here that neither PERC or ALC advocate taking control of national parks but rather focus their attention on other federal lands such as those of the BLM and U.S. Forest Service managed for "multiple-use" (American Lands Council Foundation 2016, pg. 2 & 3; Fretwell & Regan 2015, pg. 8). Still, if political figures supporting state control were to ever encounter either a friendly or open public attitude toward also transferring federal lands that included national parks, could the arguments used by PERC and ALC change to include national parks as well? In 2013, a federal government shutdown caused the closure of the NPS system for days; however, realizing the economic importance of the parks to their state's economy, the State of Utah struck a deal to pay the federal government up to 1.67 million dollars of state money to keep all five of its national parks and three of its national monuments open for up to 10 days (Utah Government 2013). There was a similar move made by the State of Arizona to keep the Grand Canyon open during this time, along with the State of Colorado for Rocky Mountain National Park (Council of State Governments West, n.d.). With the fiscal challenges of the NPS, the same case for transferring federal public "multiple use" lands could also be applied to national parks.

For question # 19, in regard to being against privatization, the average response was 3.94 meaning that respondents were nearly in agreement with the statement "I do not support privatization of national parks as their federal

ownership remains an important feature." An even stronger agreement with the statement was found amongst 30-34 year olds who had an average response of 4.58—a number 0.8 higher than 18-21 year olds and 0.66 higher than 22-25 year olds. The results here are interesting because they seem to indicate a response that contradicts that of the focus group—which seemed to be open to privatization. However, there is an important difference in how the idea of privatization was posed in each case. With the focus group, I was unable to determine if private management of national park operations versus complete private ownership was what the group had in mind. In the survey, this distinction is clearly made.

The response to the statement of question #20 "National Parks should not be under federal control, but rather under the control of the state in which each national park resides" had an average response of 2.94 meaning that respondents only slightly disagreed. This near neutral attitude—if matched by larger and more representative samples—could be interpreted as an encouraging sign to proponents of a federal public land transfer to states, despite organizations such as PERC and ALC excluding national parks from the transfer. At the very least, the response may potentially signal an open mind to the ideology represented by these organizations.

What Kind of People Visit the National Park System?

Questions #'s 21 through 24 gave respondents the freedom to provide answers in their own words through an open-ended format. Additionally, more than one answer may have been given in a single response to a particular question. For this reason, I refer to the numbers in each response category as "mentions" since more than one category may have been mentioned as a response to the question.

Question #21 asked respondents to describe the kind of people that visit national parks. The top three answers that made up just over 80% of the categorized descriptors for people visiting national parks were as follows: Nature & History Lovers (70 mentions for 32.4%), Friendly (59 mentions for 27.3%), and Families (44 mentions for 20.4%). Based on this information national parks seem to be perceived as inviting places that are family friendly and full of nice people who love what the NPS system has to offer. This does not mean that the parks are void of people with undesirable characteristics. Some quotes from respondents included positive descriptions while also including negative ones such as "Disrespectful" (23 mentions for 10.7%) in the same response as highlighted by the following quote: "Most were respectful and appreciative of the resource they were visiting/viewing/interacting with...There are ALWAYS a couple of 'Those Guys' that disregard warning signs, trail markers etc."

Other descriptions used that are worth mentioning include “Foreign” (25 mentions for 11.6%), “Not Diverse” (4 mentions or 1.9%), and “Diverse” (4 mentions or 1.85%). For anyone that has been to one of the flagship NPS parks such as Grand Canyon, it is clear that international visitors have a large presence, and in some cases there may seem to be more international visitors than domestic as highlighted by the following response: "Foreign, I always see more people from Foreign countries than I see American." There was no indication as to whether the response intended “Foreign” to be a negative or positive description, but it does give anecdotal support of the ubiquity of foreign visitors in some parks. According to the U.S. Travel Association, in 2015, it is estimated that 13.6 million overseas travelers visited the NPS system—a number that represented 35.4% of all overseas visitors to the U.S. With so many international visitors, one respondent positively commented on the amount of diversity this adds: "Very diverse crowds! I always count how many languages I hear around me, people travel across the world to see the National Parks."

Of course, while visitors from other countries add international diversity to the parks, it is the domestic diversity that the NPS is struggling with as is evident in the following quote: "I have been to several national parks. The people I generally see there are middle class white Americans. Very few minorities that I see at the parks...". Surprisingly, of all the descriptors used there were few mentions (only 4) of there being a lack of diversity. While it is hard to point out a suitable explanation for this, an attempt can be made by revisiting the literature

review, specifically regarding Millennials. Millennials have been shown to put less emphasis on race than previous generations and are also more diverse than any American generation before. Is it possible that for many, the awareness of other ethnicities is less relevant than with generations before? This is not to say that Millennials are color blind or oblivious to ethnicities outside of their own; again, "Foreign" was the descriptor used by 11.57% of respondents. But, I would argue that ethnicity becomes more pronounced when hearing another language being spoken than it does simply from appearance alone.

Respondents non-mention of poor NPS visitor diversity does not mean that the problem no longer exists, nor does it mean the problem will fix itself anytime soon. Revisiting the demographic results of the survey is a reminder that of 216 respondents, 145, or two out of three, respondents identified as white/Caucasian. Would the diversity of other visitors be as noticeable to a person if that person does not belong to an underrepresented group? Still, it is curious that of the 216 respondents, only four described visitors within the category of "Not Diverse" despite 71 respondents identifying as an ethnicity other than white/Caucasian.

How to Attract a More Diverse Demographic

Question #22 addressed the issue of visitor diversity head-on by asking for the respondent's opinion on what would attract a more diverse demographic to the national parks. The top three categories that represented just under 64%

of all responses were: More Promotion, Outreach, & Education (73 mentions for 33.8%), Cheaper or No Fees (39 mentions for 18.06%), and More Events, Attractions, & Accommodations (26 mentions for 12.04%). Promoting national parks is a fairly simple solution to reach new audiences; however, this is not a realistic option for the NPS, itself. According to email correspondence with James Doyle, Chief – Intermountain Region Communications and Legislation of the NPS, on January 30, 2017, "…the NPS cannot fund (pay for) any commercial advertising as we are an agency of the government". Fortunately, the National Park Foundation—a national non-profit organization created to be a charitable surrogate of the NPS—is able to fill this need on behalf of the NPS, along with many local and park specific non-profit Friends Groups. But, just as funding is limited for the NPS, so too is it for these vital non-profit organizations.

Outreach and education on the other hand are well within the ability of the NPS and these are activities the agency has done in places like Tucson, AZ—which has a large Hispanic population, but low Hispanic visitation at nearby Saguaro National Park (Larmer 2013). Here, rangers from Saguaro connected with the Hispanic community by visiting schools and attending community events in hopes of connecting with both younger and more diverse audiences. If they are not doing so already, the NPS' diverse community outreach efforts of bringing the parks to the people—as the rangers of Saguaro National Park did—will need to become much more frequent in the surrounding communities of

national parks across the country if this recommendation is to be properly addressed.

Providing either cheaper or no fees is another simple solution; yet in the face of funding shortfalls, a simple solution becomes quite complicated. The entry fees to enter places like Yellowstone National Park have not kept pace with inflation and based on the overcrowding issues at many of the most popular national parks, it would appear that prices do not reflect supply and demand. Likewise, a lack of sufficient funding from the federal government puts an even bigger strain on a cash-starved agency. If having cheaper or no fees is the answer to attracting new and diverse visitors, then a difficult funding dilemma arises—barring political change that returns to a funding structure of adequate federal appropriations rather than constant calls for bureaucratic reductions.

The third most mentioned response may present another obstacle to the mission of the national park service in protecting historical, cultural and natural resources for current and future generations. While some suggestions may be easier to accommodate such as "Creating a park that has items for multiple demographics," others are likely to be less realistic because of the way they would conflict with the NPS' mission. Two examples of this are from the following responses: "Field days, tours, maybe some small amusement park" & "More amusement, i.e.: horseback riding, concerts, food trucks, etc."; In these quotes the concerning words are "amusement park" and "concerts"—picture a Six Flags amusement park within the boundaries of Mesa Verde National Park or the

modern version of Woodstock taking place in Rocky Mountain National Park. While a Six Flags and a Woodstock-like concert event may be exaggerated as to what was intended by the quotes, it helps communicate the potential challenge of satisfying the recreational desires of new audiences.

Joseph Sax, who wrote *Mountains Without Handrails*, provides prudent guidance on just how to deal with the challenge of satisfying various recreational desires. In the book, he suggests a compromise "…to try fully to serve the quantitative demand for conventional recreation and to provide opportunities for all the different kinds of *activities* the public wants, but not to assure those opportunities in locations that have a special value for reflective recreation." (Sax 1980, pg. 63). In other words, by providing opportunities for many types of activities, the NPS can fulfill its need to appeal to new audiences but it must do so only where those activities are unobtrusive to recreation that reflects the true purpose of the park. Essentially, this compromise gives the NPS an invaluable guideline to follow in determining what is, and is not, an acceptable recreational opportunity to allow within its sites: "So long as there is a reasonable opportunity somewhere to participate in all the various activities we want, and with a considerable degree of amenity and convenience, we can reserve critical areas in the parks from conventional tourism without destroying the chance for a conscious choice by the tourist." (Sax 1980, pg. 63).

There may be no more important task for the NPS than attracting more diverse visitors—even more than finding a way to increase congressional

appropriations that would relieve a severely strained budget. Failure to do so will eventually lead to a failure of the agency's mission: "to conserve the scenery and the natural and historic objects and the wildlife therein, and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations" (National Park Service n.d., a). If the value of national parks ever diminishes amongst more diverse future generations due to a lack of connection with these parks, so too may their relevance and justification for continued funding and protection.

How to Integrate Technology in NPS Sites

Since integration with technology is one of the defining characteristics of the Millennial generation, question #23 asks for a recommendation to the NPS for using technology in interpretive and educational efforts. The top 3 categories that represented just under 63% of responses were the following: Park Communication (64 mentions for 29.63%), Mobile Applications (40 mentions for 18.52%), and Promotion of Parks (32 mentions for 14.81%). Social Media was also mentioned, though it ranked just behind Promotion of Parks with 28 mentions for 11%.

Respondents' idea of using technology for park communication covers just about any way a park could interact with visitors or even fulfill operational needs. Mobile Applications, Promotion of Parks, Education, and Social Media are also forms of park communication; however, the high frequency of their specific

mention warranted creating separate categories. Additionally, for further clarification on category tallies, an answer referring to Social Media would qualify as both one mention for the category of Social Media and Park Communication, since it falls into both categories. The following quotes demonstrate the range of recommendations: "Perhaps some videos being shown at the parks about history etc. Something similar but much better than what is at the GOG visitors center"; "They should make an app where you can learn about all of the different parks, with like daily fun facts or 'park of the week' or something, since everyone uses their phones more than anything."; and "Monitor most aspects of the park, people, animals, things."

A few respondents broke from their Millennial peers altogether by discouraging the use of technology, as seen in the following quote: "I would say avoiding technology would be the best way to go. People usually visit parks to enjoy the nature and get away from the hustle and bustle of the technological world." The former quote is significant as it is a reminder of the unique problem that the NPS will need to find a solution for: striking a balance between catering to Millennials' technological needs while also continuing to leave national parks "unimpaired". What constitutes "unimpaired" could be debated if evaluating how best, and how much, to integrate technology in to national parks. Technology can certainly be used in a way that does not impair the tangible elements of a park, but it could very well impair the intangible aspects that contribute to the NPS experience. As technology continues to advance and increases its role in our

lives, the NPS may need to continually reevaluate where to draw a line in the sand on its usage.

For the most part, either the NPS, or supporting organizations, are currently doing much of what has been recommended for using technology to some degree. Many visitor centers employ multi-media such as educational/interpretive videos and a number of units have their own social media page as an extension of their interpretive/educational message. Currently, there are only a few mobile applications available for specific parks developed under the NPS name; however, many others are available for both Android and iOS smartphones.

As mentioned before, the NPS is prohibited from commercial advertising as they are a federal government agency. Therefore, they are not using technology in any way to promote themselves commercially. Alternatively, this can be accomplished via the National Park Foundation and many of the park-specific Friends groups. A great example of such advertising occurred in conjunction with the recent 100-year anniversary celebration of the NPS in 2016 with a national campaign called "Find Your Park", which utilized a variety of digital channels, particularly social media. Unfortunately, this magnitude of advertising for national parks is rare—the 100-year anniversary of the NPS was a publicity magnate that undoubtedly helped the National Park Foundation attract significant funding from corporate sponsors. According to the Find Your Park

webpage, the campaigns partners include Subaru, REI, American Express, Disney, Human, and Budweiser.

NPS Sites in Colorado

The successes and failures of Millennials in their understanding of the NPS system is best captured in question #24 which provided data that exceeded my expectations in terms of what it revealed. Of all the NPS sites identified as being within the state of Colorado, only 56.4% of the named places were correctly identified, meaning 43.6% of the named places were incorrectly identified. The top three places which made up 44.2% of responses were Rocky Mountain National Park (87 mentions for 40.3%), Great Sand Dunes (59 mentions for 27.3%), and Mesa Verde National Park (40 mentions for 18.5%). Another category actually displaces Mesa Verde National Park for 3rd place with 58 mentions, or 26.9%, but this category is more complex as it is a conglomerate of all places that were mentioned only once. A review of the list of places mentioned in both the formerly mentioned category—as well as the remainder of the places listed in rank order—can be summed up in the following: the Millennials in this survey are aware of at least some of the local and flagship parks in Colorado, but there is much confusion as to what is and is not part of the national park system. This is very significant for many reasons, particularly in the understanding of how these places are funded and what the expectations should be when visiting. Some of the places listed were somewhat baffling. Cities such as Estes Park and Buena Vista made the list, along with state parks, and

national forests. Some privately owned, for-profit places were also listed, including Seven Falls, Cave of the Winds, and "The Zoo." These results are concerning and bring attention to something yet to be mentioned by other research that has been done on national park visitation: How well do Millennials know the NPS and the national park system and how does their knowledge about them compare to other generations?

From what was gathered with my survey from this sample, I am led to believe that while Millennials appreciate and value national parks, they do not know the national park system as well as they should. Again, it is unimportant to know specific details such as the exact number of NPS units, but it is important to know the difference between a national park and, say, a state park—or better yet, privately held properties. Differences in management policies and, more importantly, understanding where the funding source supporting the operation of a particular location have an effect on the expectations of that place.

Notable Correlation Values

In applying the Pearson r statistic to the responses of scale question #'s 9 through 20, the most significant positive correlation produced was 0.65 (questions #9 & #10), while the most significant negative correlation produced was -0.28 (questions #19 & #20). The positive correlation between questions #9 and #10 was not surprising as it seemed likely that responses would follow each other in one direction of the scale or another. In this case, respondents who

were likely to visit a national park in the next 12 months had a desire to visit that was similar to their likelihood of going.

Question #12 provided many notable correlations as it was a good base from which to test various attitudes towards national parks as they compare to the respondents' overall level of importance they place upon them—which was an average response of 4.36, or important. The correlation produced between question #12 and question #13 was positive at 0.35. Though a positive correlation, it is not as strong as I would have expected. If the NPS system, as a whole, is important, responses for questions number 12 and 13 should be more closely matched when asking whether all national parks are equally valuable/important regardless of their level of fame or scenery.

The same is true when comparing question #12 to questions 17 through 20. The correlation produced with question #17 was positive at 0.25. Given the current budgetary issues of the NPS, it would be desirable to see a strong positive correlation in asking a respondent whether they agree with paying more taxes to increase the budget for national parks, yet 0.25 represents a weak positive correlation.

In pairing question 12 with question #18, a very weak positive correlation of 0.12 was produced. What this suggests is that while the NPS system is important to respondents, responses are not consistent on increasing the entry fee to enter the most popular places to help mitigate the damaging effects of overcrowding. This result is not surprising as good arguments for and against fee

increases could be made, but it does help illustrate the variety of opinions towards fee increases. A similar result is found from the correlation produced with question 12 and #19, which is also a very weak correlation at 0.13. This result is somewhat intriguing given the current political landscape regarding federal vs. state control of federal public land. Here, respondents show that NPS system is important, however there is no consistency in answering whether national parks should be privatized. The last notable pairing to question #12 is with question #20, which produced a correlation of 0.00. This result shows absolutely zero correlation between the two questions, which, again, like question #19, is interesting as it relates to the federal vs. state control of federal public lands conversation. Here, respondents, collectively, are signaling that despite NPS system's importance to them, they are not sure which way to go on the idea of placing national parks under state control rather than federal.

Finally, the last notable correlation worth mentioning, and the greatest negatively correlated value produced, is between questions 19 and 20 at -0.28; the average response for question #19 was 3.94 and #20 was 2.94. Though the correlation value of -0.28 is a weak negative correlation it does show how the answers for these questions tended to be slightly opposite of each other. If respondents were strongly opposed to privatization as well as state control of national parks, the resulting correlation between these two questions should have been a very strong negative correlation. Instead, the correlation value for these two questions seems to suggest a very weak opposition to both.

CHAPTER V

RECOMMENDATIONS

During the process of recruitment for research participants, both for the focus group and the survey, when explaining the purpose of my research—to gain insight into Millennials' attitudes and values towards national parks—I was generally met with a positive reception by strangers. In one instance, I recall a person walking away from me as I asked if they were interested in participating in my research. Politely saying "No, thank you", this person would have continued to walk away, but once they heard "national parks", the person stopped and said "Oh, national parks? I guess I have a few minutes." In my overall interpretation of the results from my study, I can confidently say that the Millennials in my sample, in addition to having a few minutes to spare for their attitudes and values towards national parks, also value the parks themselves. The most convincing evidence for this assertion comes from the following: 4 out of 5 respondents had visited a national park; 3 out of 4 believed they are either strongly, or very strongly, tied to American identity; and nearly 4 out of 5 had either a high or extremely high desire to visit a national park in the near future.

With this data alone, the NPS should be optimistic about the future. However, as encouraging as the overall data may be, I have identified what I believe to be the most pressing issues for the NPS to address: visitor diversity, funding, and use of technology. To address these issues, I have come up with a

set of recommendations that I believe would help strengthen the position of national parks beyond positive attitudes and instead lead to more active individual involvement that ensures a bright future for the NPS and the lands managed under its authority. But, for these recommendations to be properly implemented, the NPS will need to evolve and adapt to a new age while also strictly adhering to its mission.

One way I propose to attract new and diverse visitors is to break the bounds of park staff, mainly the interpretive ranger. Rather than dwell within their respective parks to conduct educational and interpretive duties, park rangers should more frequently serve as NPS ambassadors in communities whose residents have little if any relationship or familiarity with national parks. This could be accomplished by seeking ways to become involved in community events, community centers, and community festivals in areas that, demographically, are not reflective of overall, domestic NPS visitation. The duty of the ranger in this setting would be less focused on education of the NPS site they represent and more on being outgoing and engaging people. By conversing with and, more importantly, listening to people they are engaging in conversation, they may discover opportunities to create interest in national parks where they may not have been before. This should also be a lasting effort that continues beyond a few visits here and there as it will take time to engrain themselves in the communities the NPS needs to connect with.

Another way to attract new and diverse visitors is to embrace the hosting of various events on a regular basis, whether the theme is directly related to a particular park or not. The mission of protecting historical, cultural and natural resources is paramount, but the agency should continually explore ways to connect something of interest, with the demographics they wish to attract, to that of what the park has to offer through small scale events. Woodstock-like concert events would be out of the question, as they should be, but events are worth experimenting with when and where possible. On August 27-28th of 2016, for example, an event was held at Florissant Fossil Beds National Monument called the Plein Air Paint Your Park Festival & Art Sale. While it is unknown if the event helped specifically reach a new and diverse audience, it demonstrates that it is feasible to host events that do not undermine the NPS mission. In fact, bringing artists into the park units for activities such as landscape painting might well add to the NPS mission productively ("to use and enjoy…")

It would be easy to suggest a reduction of fees, or to simply abolish fees all together to attract new, diverse visitors, however this is unrealistic given the budgetary and overcrowding problems that currently menace the NPS. Yet, the NPS does offer a handful of fee-free days which occur throughout the year. The NPS should go even further than this, though, and consider structuring fees differently. This could be accomplished by charging fees that are a ratio of income.

Admittedly, charging fees based on income would be challenging to implement. Being asked for household income when paying a fee to enter a park could be intrusive—to those who do not wish to give that information. It would also be hard to prove for those who may try to take advantage of paying a lower fee despite having a relatively high annual household income. Perhaps the best way to accomplish this would be to raise current standard prices to a level that is determined to be, at a minimum, affordable for middle class incomes. Then, to make the cost more appropriate for various income levels, an easy-to-use online system could be created to apply for income adjusted NPS park entrance fees or annual passes. Incomes could be verified through the Internal Revenue Service database via a tax identification number. Once income is verified, a card could then be mailed to the applicant which would be presented to an attendant collecting the entrance fee. The attendant would scan the card and then ask for the appropriate fee.

Additionally, the NPS should also experiment with more fee-free weeks and fee-free periods, either system wide or on a site by site basis, particularly when visitation is lower than that of peak season. Fee-free weeks could especially experience success in NPS units that are close to urban areas where more diverse populations live. If the absence of a fee is to attract new and more diverse visitors it should be of the upmost importance for the NPS to inform these potential visitors when these days occur. Since this cannot be communicated by the NPS through commercial advertising, it makes the case for

putting more interpretive rangers into communities unfamiliar with the NPS to communicate information like this even stronger.

My next set of proposals apply to Millennials as a whole. The financial health of the NPS is almost entirely dependent upon congressional appropriations designated by a budget committee consisting of government officials. Thus, the decision for how much funding goes to the NPS is weighed against other government programs, such as fighting wildfires (Taylor 2016). This—coupled with Congress limiting non-defense discretionary spending in order to balance the federal budget—has led to the poor financial health of the NPS (Taylor 2016). The total appropriation for the NPS in 2016 was a mere 2.85 billion (Congressional Research Service 2016) despite needing 4 times that amount to take care of deferred maintenance projects alone. How is it that the NPS receives poor funding when a Harvard study found 94.8% of Americans believe that it is important to preserve national parks for current and future generations (Haefele et al. 2016)?

To help this problem, I believe the NPS needs to zealously inform the American public of the following: How money is appropriated by Congress to national parks, and how much has been appropriated for the current year; how those who care about national parks can ensure that the historical, cultural and natural resources continue to be protected for current and future generations; and what places are part of the system. This can be done in every facet of communication from the interpretive ranger to any form of information that is

disseminated online or in print. By giving people who care about parks the basic knowledge they need to better understand the entirety of the agency and to place political pressure on their government representatives, national parks may finally begin to get the funding they need to be fully functional and properly fulfil their mission.

Additionally, the NPS should be as candid and transparent in their communication regarding budget shortfalls with visitors as policy will allow. Perhaps a more in-your-face style of communication would awaken visitors to the realities of funding shortfalls. For example, when the Grand Canyon's Trans-Canyon Pipeline, which supplies water to storage tanks on the South Rim, broke on June 21, 2016, immediate water conservation guidelines went into effect (Grand Canyon News 2016). The pipeline break, which happens frequently due to its age and severe need of replacement, left a popular campground and rest area without water while temperatures hit triple digits (National Park Service n.d., c.; Grand Canyon News 2016). As this problem was being resolved, imagine how effective a sign posted at the campground and rest area would have been with the statement "Because of billions of dollars in NPS maintenance backlogs, water is currently unavailable. To ensure you always have access to water while visiting Grand Canyon National Park in the future, please tell Congress to adequately fund your national parks." Though I realize this drastic communication method may be a hard sell for the NPS to practice, do drastic times not call for drastic measures? What will become of our national parks as

maintenance projects continue to be deferred while Congressional appropriations for the NPS either stay the same, at best, or worse, shrink?

Possibly the most significant insight I gained from my research regarded a lack of understanding of both the extent of the NPS system as well as what is and is not part of the system. There were names I expected to be mentioned when respondents were asked to name an NPS unit in Colorado, most notably Rocky Mountain National Park. However, I was astonished to discover the other types of places respondents believed were also a part of the NPS system, particularly places like cities (Estes Park and Buena Vista), privately owned commercial properties (Seven Falls), state parks, and national forests. Failure to understand the difference between one place from another—which have different funding and management policies from each other—may lead to inappropriate expectations when visiting a national park. More importantly, this lack of basic knowledge leads to confusion behind the purpose of the NPS as a federal land management agency.

To mitigate this problem, I propose the NPS take an in-depth look at some of the most successful marketers in business and improve their brand. Though the NPS cannot advertise commercially, it can capitalize on two forms of advertising it already inadvertently uses: its logo and its stellar reputation. In fact, in 2001 the NPS acknowledged a problem in this area by stating, "Throughout its history, the National Park Service has consistently provided high-quality information to the public. However, the graphic look and feel of that

information has not been consistent, which has diminished opportunities to strengthen the public's understanding of what the NPS is and what it does. With the adoption of Director's Order 52A in 2001, the NPS began an effort to address this issue by adopting graphic identity standards that make our communications media consistently more distinctive and memorable" (National Park Service, d, 2011). If the results of my survey are any measure of the effort to "…strengthen the public's understanding of what the NPS is and does" since Director's Order 52A was implemented in 2001, it appears that effort has been unsuccessful.

What would better branding look like for the NPS? Think Apple, McDonalds, or Google. Yes, unlike the NPS, those are giant corporations with billions of dollars in revenue, not federal government agencies. But what do they all have in common? Millions of people around the world, and in the U.S., know exactly what the logos of those companies represent. Though many people may recognize the NPS' arrowhead logo, does it represent anything more to them than a handful of the famous flagship national parks? While I do not know the answer to that question, I believe it *should* represent a distinguished federal agency in charge of managing and protecting a wide array of America's most prized natural and cultural land treasures on behalf of each and every American. It is important to stress "on behalf of each and every American." It must not be forgotten that national parks are public lands. They do not belong to a rich billionaire, a monarch, or an exclusive society—they belong to each and every American regardless of net worth, race, or ethnicity. If people are continually

encouraged to view themselves as a part owner of these lands, even if that ownership is minute, might they be compelled to protect what they own when there is a risk of losing it?

My proposal for better branding may be the most idealistic of my recommendations, primarily because of the line it could cross in being perceived as commercial advertising. It would also require spending money that they NPS does not have. But in an ideal world where NPS congressional appropriations are ample and there is no bureaucratic red tape to stifle innovative ideas, I believe this solution would greatly eliminate much of the confusion that exists regarding the NPS. By firmly establishing the meaning of arrowhead logo as a symbol representing the totality of everything the national park system stands for, the average American will know information such as how that place is funded and how the resource is managed.

As technology continues to advance, so too will the technological expectations of visitors for experiencing national parks. Of course, there are appropriate and inappropriate ways for the NPS to satisfy technological expectations while also staying in line with its mission. My recommendation to address this area is for the NPS to concentrate on advancing its technological capabilities in education and interpretation on highly interactive mobile and web applications.

To some extent the NPS is already working on this. The Harpers Ferry Center, where Harpers Ferry National Historic Park is located, is an interpretive

and media service provider for the entire NPS system and produces films, mobile apps, and exhibits, among other media products (National Park Service n.d., e). They also assist parks with social media and a distance learning program called WebRangers for schools (National Park Service n.d., e). While I applaud their effort, given their financial constraints, I feel opportunities are being missed to make the merging of national parks and technology more robust as an educational and interpretive opportunity for reaching the public, especially Millennials.

A rough conceptual idea I propose to capitalize on the missed opportunity is to create a three dimensional, interactive virtual park explorer, for each NPS unit, where one could experience and learn about that place without being there. This idea could be easily created by a web developer who is skilled in creating visually appealing user interfaces with nothing more than geographic information software (like Google Earth), a few basic programming languages, and assortment of high quality pictures and videos from the park. These three-dimensional virtual park explorers would complement each of the NPS units' websites and existing mobile applications, as well as the distance learning programs. Additionally, the information communicated to the end-user would be offered in various languages.

Of the NPS-produced mobile applications that currently exist for various units, these applications act primarily as a compact, downloadable version of each unit's website—mostly with general information and very basic interactive

features. Some exceptions to this can be found in the NPS National Mall and the NPS Virtual Tour apps which offer more advanced interactive features. The NPS National Mall app offers augmented reality, which you must be on location to use, and the NPS Virtual Tour app offers a very short virtual tour of just four parks with an interface similar to Google Street View. There are mobile applications not produced by the NPS that provide better features and interactivity, but an NPS-produced product ensures control over the specific messages that the NPS would want to communicate, either universally or for a specific location. Having an NPS produced version also maintains a consistent branding image with a universal user interface and scheme. With their accessibility to anyone with internet access, these more detailed and comprehensive versions of the NPS Virtual Tour app could be used to introduce technology-loving audiences to the NPS system while also encouraging a visit.

My last proposal is not directed at the NPS but rather the non-profit, Friends Groups which may increasingly be relied upon financially if federal funding for the NPS does not improve. For the NPS sites that have the luxury of a supporting non-profit, these organizations have played significant roles in providing financial and volunteer resources while also serving as a surrogate marketing and communications arm. Therefore, it is critical that Millennials be involved in these organizations for the NPS to count on their continued support in the decades to come.

In an email blast that I conducted during the week of February 20th through the 24th, I randomly contacted approximately 20 national park Friends Groups from across the country and asked if they had an idea of their membership's median age. Of the six that replied, none of them kept track of individual member ages. Friends of Saguaro National Park, Friends of the Smokies, and Friends of Mammoth Cave National Park did tell me that, anecdotally, many of their members/donors were of retirement or Baby Boomer age. In my personal experience of involvement with the Friends of the Florissant Fossil Beds, I have also found this to be true, at least from what I have seen of the active members and board positions. Further evidence of concern comes from a survey of national park Friends Groups conducted by the National Park Foundation in 2012. In this survey the following question was asked: "What are the greatest obstacles facing your organization?" Out of the 85 Friends Groups that answered this question, 61% said "Fundraising" and in a three-way tie for third at 24% was "Membership", along with "Board Recruitment" and "Communications and Marketing" (National Park Foundation 2012).

My proposal for Friends Groups is to first start tracking basic demographic information such as age and race/ethnicity from consenting members, if not already. Though a simple recommendation, it may provide an eye-opening view of a Friends Group's future and motivate urgent action to attract both younger and more diverse members. For some Friends Groups, failure to take such action

may lead to the beginning of the end as a Friends Groups' membership and leadership pass on without new people to take their place.

Furthermore, to find younger members, I propose Friends Groups go to the places where they can be easily found. College campus may be a great venue for this if student memberships can be offered at a reduced price. Additionally, Friends Groups should create a strategy for integrating with companies who both encourage and financially support their employees' volunteering efforts. Great examples of such companies are Novo Nordisk, NuStar Energy, Salesforce, Deloitte, Autodesk, VMware, Stryker, and Cadence—all of which offer their employees anywhere from 40 to 80 hours of paid time off to volunteer, per year (Kokalitcheva 2016). Companies offering their employees paid time off to volunteer not only indirectly provide financial assistance to non-profit organizations through free labor, they can also indirectly provide Friends Groups with the opportunity to connect with new members.

CHAPTER VI

CONCLUSION

On August 25th, 2016, the NPS celebrated its much anticipated 100-year anniversary—garnering a great deal of media coverage. As I write this, in February of 2017, the NPS has more recently gained additional media coverage, which has been less jovial, coinciding with Donald Trump taking office as the 45th president of the United States on January 20th, 2017. Side-by-side pictures displaying a smaller crowd size at the National Mall of the 2017 inauguration of Donald Trump versus that of a larger 2009 inauguration of Barack Obama had been posted as a retweet from a *New York Times* reporter on the NPS' Twitter account (Merica & Bash 2017). The retweet, which was later called "mistaken" by the NPS, resulted in a temporary halt of tweets by the NPS (Merica & Bash 2017). In defiance of the tweet halt, a rogue Twitter account, not authorized by the NPS, surfaced called AltNatParkService (Davis 2017). This account, which gained more than a million followers in a matter of days, established itself as social platform in fierce opposition to the Trump administration (Davis 2017). This extensive media coverage of late, regardless of the reason, has undoubtedly helped create greater awareness of our national park system amongst the greater American public. Perhaps this elevated level of attention could come at no better time.

From my perspective, the NPS, and the system of lands managed under its authority, are at a pivotal crossroads. While the agency has much to be proud of in reflecting back on its 100-year history, it also has much to be concerned about in charting a prosperous path towards a 200-year anniversary in 2116. The decisions and actions, or lack thereof, taken by NPS from this point forward have the potential to make or break the legacy of "America's best idea" (Stegner 1999).

The positive consensus attitude towards national parks, currently held by the American public, including Millennials, is a testament to the exceptional job the NPS has done since its establishment in 1916. But when the NPS celebrates its bicentennial, it should be said that the NPS will have done an exceptional job in earning the love and admiration of all races, colors and ethnicities which make up the greater American public. It would also be an American public that is uncompromising in securing adequate congressional funding for the NPS, year in and year out. This vision for the future, though utopian, should be the aim of the NPS as it is the one that best allows it to stay true to its mission: "to conserve the scenery and the natural and historic objects and the wildlife therein, and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations" (National Park Service n.d., a).

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APPENDICES

Appendix A

Begin Survey

1) What is your age?

- ◯ 18 – 21
- ◯ 22 – 25
- ◯ 26 – 29
- ◯ 30 – 34
- ◯ 35 or older

2) Are you a University of Colorado at Colorado Springs (UCCS) student?

- ◯ Yes
- ◯ No

3) What is your major? Please write your response below.

4) What is your gender?

- ◯ Male
- ◯ Female
- ◯ Other

5) What is your ethnicity?

- ◯ White / Caucasian
- ◯ Hispanic / Latino
- ◯ Black / African American
- ◯ Asian / Asian American
- ◯ Prefer not to say
- ◯ Other, please specify_____

6) Where have you spent the majority of your life (list name of state, or country if not U.S.)?

7) Have you ever been to a place in the National Park System (meaning any of the places managed by the National Park Service such as Yellowstone, Gettysburg, Chaco Culture National Historic Park, or Devils Tower National Monument)?

- ◯ Yes
- ◯ No
- ◯ I don't know

8) Approximately how many places, that you are aware of, are managed by the National Park Service?

- ◯ Just under 60
- ◯ Around 150
- ◯ Around 275
- ◯ Over 400

9) How likely are you to visit a place in the National Park System, within the next 12 months?

Very unlikely 1 2 3 4 5 Very likely

10) How high is your desire to visit a place in the National Park System, within the next 12 months?

Extremely low 1 2 3 4 5 Extremely high

11) In your opinion, how much are our National Parks tied to American identity?

Not much 1 2 3 4 5 Very strongly

12) How important is the National Park System, as a whole, (meaning all places managed by the National Park Service) to you?

Not important 1 2 3 4 5 Very important

For the following statements (in questions #13 through #20), please indicate how much you agree or disagree with the following statements:

13) "All national parks are equally valuable/important regardless of their level of fame or spectacular scenery."

Strongly disagree 1 2 3 4 5 Strongly agree

14) "I would like to visit lesser-known places in National Park System, even if they are not as famous as a place like Yellowstone."

Strongly disagree 1 2 3 4 5 Strongly agree

15) "Having a memorable experience in a national park with family and/or friends is more important to me than anything I would see while visiting a national park."

Strongly disagree 1 2 3 4 5 Strongly agree

16) "I should <u>not</u> have to pay to visit any place in the National Park System if they get funding from tax dollars."

Strongly disagree 1 2 3 4 5 Strongly agree

17) "I would support paying more taxes to increase the budget for national parks."

Strongly disagree 1 2 3 4 5 Strongly agree

18) "The entry fee to enter the most popular places in the National Park System should be raised to a point that helps reduce overcrowding and degradation."

Strongly disagree 1 2 3 4 5 Strongly agree

19) "I do not support privatization of national parks as their federal ownership remains an important feature."

Strongly disagree 1 2 3 4 5 Strongly agree

20) "National parks should not be under federal control, but rather under the control of the state in which each national park resides."

Strongly disagree 1 2 3 4 5 Strongly agree

21) If you have ever been to a place in the National Park System, how would you describe the people, in general, who were there visiting with you? If you have never been to a national park, how would you describe the people, in general, that you would expect to encounter?

22) In your opinion, what would attract a more diverse visitor demographic—meaning one that is more representative of the U.S. population as a whole—to our national parks?

23) How would you recommend that the National Park Service use technology to assist its interpretive/educational efforts, if at all?

24) Please list all of the places you can name in Colorado that are a part of the greater National Park System.

End Survey

Appendix B

Measures of Central Tendency

Mean	8. Approximately how many places, that you are aware of, are managed by the National Park Service?	9. How likely are you to visit a place in the National Park System, within the next 12 months?	10. How high is your desire to visit a place in the National Park System, within the next 12 months?	11. In your opinion, how much are our National Parks tied to American identity?	12. How important is the National Park System, as a whole, (meaning all places managed by the National Park Service) to you?	13. "All national parks are equally valuable/important regardless of their level of fame or spectacular scenery."	14. "I would like to visit lesser-known places in National Park System, even if they are not as famous as a place like Yellowstone."	15. "Having a memorable experience in a national park with family and/or friends is more important to me than anything I would see while visiting a national park."	16. "I should not have to pay to visit any place in the National Park System if they get funding from tax dollars."	17. "I would support paying more taxes to increase the budget for national parks."	18. "The entry fee to enter the most popular places in the National Park System should be raised to a point that helps reduce overcrowding and degradation."	19. "I do not support privatization of national parks as their federal ownership remains an important feature."	20. "National parks should not be under federal control, but rather under the control of the state in which each national park resides."
Millennials	2.30	3.81	4.30	4.15	4.36	4.33	4.31	3.58	3.07	3.24	2.69	3.94	2.94
18-21	2.27	3.79	4.25	4.09	4.25	4.31	4.19	3.70	3.17	3.09	2.74	3.78	3.17
22-25	2.38	3.63	4.28	4.15	4.35	4.18	4.40	3.35	2.93	3.43	2.60	3.92	3.13
26-29	2.38	3.96	4.39	4.43	4.64	4.32	4.50	3.43	2.93	3.32	2.68	4.28	2.31
30-34	2.21	4.11	4.53	4.21	4.74	4.74	4.68	3.47	2.95	3.74	2.58	4.58	1.95
35 or older	2.50	4.06	4.17	4.39	4.50	4.50	4.44	3.72	2.78	2.89	2.78	4.61	2.50
White / Caucasian	2.34	3.96	4.46	4.26	4.46	4.30	4.35	3.43	3.01	3.21	2.74	3.97	2.92
Hispanic / Latino	2.07	3.63	4.07	4.11	4.52	4.56	4.52	3.93	2.67	3.19	2.74	3.82	2.75
Black / African American	2.00	3.18	3.45	3.64	3.73	4.55	3.55	4.00	3.82	3.18	2.00	3.73	3.18
Asian / Asian American	2.18	3.41	3.94	3.76	4.00	4.29	4.18	4.06	3.29	3.53	2.94	3.76	3.00
Multiethnic (2 or more)	2.62	3.77	4.38	4.15	4.23	4.38	4.38	3.77	3.85	3.54	2.31	4.54	3.23
Non-White	2.21	3.50	3.97	3.94	4.17	4.37	4.23	3.90	3.20	3.29	2.60	3.89	2.99
Male	2.33	4.00	4.24	4.24	4.34	4.16	4.31	3.63	3.09	3.30	2.54	3.94	2.97
Female	2.28	3.66	4.36	4.08	4.38	4.48	4.32	3.56	3.05	3.16	2.83	3.93	2.93
Colorado	2.29	3.72	4.24	4.21	4.35	4.39	4.28	3.60	3.00	3.15	2.71	3.91	3.02
NOT Colorado	2.34	3.97	4.36	4.06	4.38	4.18	4.33	3.56	3.19	3.36	2.69	4.07	2.67

Variance	8. Approximately how many places, that you are aware of, are managed by the National Park Service?	9. How likely are you to visit a place in the National Park System, within the next 12 months?	10. How high is your desire to visit a place in the National Park System, within the next 12 months?	11. In your opinion, how much are our National Parks tied to American identity?	12. How important is the National Park System, as a whole, (meaning all places managed by the National Park Service) to you?	13. "All national parks are equally valuable/important regardless of their level of fame or spectacular scenery."	14. "I would like to visit lesser-known places in National Park System, even if they are not as famous as a place like Yellowstone."	15. "Having a memorable experience in a national park with family and/or friends is more important to me than anything I would see while visiting a national park."	16. "I should not have to pay to visit any place in the National Park System if they get funding from tax dollars."	17. "I would support paying more taxes to increase the budget for national parks."	18. "The entry fee to enter the most popular places in the National Park System should be raised to a point that helps reduce overcrowding and degradation."	19. "I do not support privatization of national parks as their federal ownership remains an important feature."	20. "National parks should not be under federal control, but rather under the control of the state in which each national park resides."
Millennials	1.01	1.78	1.12	0.98	0.71	0.97	0.83	1.28	1.54	1.27	1.47	1.19	1.56
18-21	0.92	1.65	1.06	1.09	0.85	0.97	0.93	1.16	1.51	1.20	1.37	1.20	1.47
22-25	1.16	2.50	1.33	0.95	0.59	1.17	0.81	1.26	1.40	1.43	1.48	0.91	1.19
26-29	1.03	1.67	0.99	0.55	0.31	1.04	0.63	1.66	1.70	1.04	1.71	1.42	1.44
30-34	1.40	1.43	1.37	0.95	0.32	0.32	0.34	1.60	1.83	1.43	1.92	0.70	1.39
35 or older	1.09	1.94	1.91	0.84	0.74	0.74	1.32	0.92	1.59	2.10	1.95	0.49	1.68
White / Caucasian	1.03	1.62	0.72	0.84	0.60	0.98	0.80	1.33	1.47	1.25	1.49	1.14	1.55
Hispanic / Latino	0.88	1.93	1.53	0.95	0.57	0.41	0.64	1.07	1.46	1.46	1.35	1.34	1.68
Black / African American	1.20	1.76	2.27	0.85	1.42	0.47	1.67	1.00	1.36	0.36	1.00	1.82	1.56
Asian / Asian American	0.90	2.01	1.81	2.07	0.63	1.35	0.78	1.06	1.60	1.39	1.93	1.32	1.25
Multiethnic (2 or more)	0.92	2.36	1.42	1.14	1.19	0.92	0.59	1.03	1.31	1.44	1.06	0.44	2.03
Non-White	0.97	1.99	1.80	1.21	0.90	0.96	0.90	1.05	1.67	1.31	1.43	1.30	1.61
Male	1.14	1.52	1.19	0.91	0.74	1.18	0.87	1.54	1.61	1.42	1.68	1.28	1.83
Female	0.90	1.97	1.05	1.04	0.69	0.74	0.77	1.05	1.47	1.12	1.27	1.12	1.33
Colorado	0.97	1.91	1.23	0.92	0.78	0.86	0.91	1.23	1.60	1.34	1.55	1.11	1.58
NOT Colorado	1.09	1.60	1.02	1.10	0.60	1.14	0.85	1.38	1.37	1.25	1.43	1.32	1.56

Standard Deviation	8. Approximately how many places, that you are aware of, are managed by the National Park Service?	9. How likely are you to visit a place in the National Park System, within the next 12 months?	10. How high is your desire to visit a place in the National Park System, within the next 12 months?	11. In your opinion, how much are our National Parks tied to American identity?	12. How important is the National Park System, as a whole, (meaning all places managed by the National Park Service) to you?	13. "All national parks are equally valuable/important regardless of their level of fame or spectacular scenery."	14. "I would like to visit lesser-known places in National Park System, even if they are not as famous as a place like Yellowstone."	15. "Having a memorable experience in a national park with family and/or friends is more important to me than anything I would see while visiting a national park."	16. "I should not have to pay to visit any place in the National Park System if they get funding from tax dollars."	17. "I would support paying more taxes to increase the budget for national parks."	18. "The entry fee to enter the most popular places in the National Park System should be raised to a point that helps reduce overcrowding and degradation."	19. "I do not support privatization of national parks as their federal ownership remains an important feature."	20. "National parks should not be under federal control, but rather under the control of the state in which each national park resides."
Millennials	1.00	1.33	1.06	0.99	0.84	0.98	0.91	1.13	1.24	1.13	1.21	1.09	1.25
18-21	0.96	1.28	1.03	1.04	0.92	0.99	0.96	1.07	1.23	1.09	1.17	1.10	1.21
22-25	1.08	1.58	1.15	0.98	0.77	1.08	0.90	1.12	1.19	1.20	1.22	0.96	1.09
26-29	1.01	1.29	0.99	0.74	0.56	1.02	0.79	1.29	1.30	1.02	1.31	1.19	1.20
30-34	1.18	1.20	1.17	0.98	0.56	0.56	0.58	1.26	1.35	1.19	1.39	0.84	1.18
35 or older	1.04	1.39	1.38	0.92	0.86	0.86	1.15	0.96	1.26	1.45	1.40	0.70	1.29
White / Caucasian	1.02	1.27	0.85	0.92	0.77	0.99	0.89	1.15	1.21	1.12	1.22	1.07	1.24
Hispanic / Latino	0.94	1.39	1.24	0.97	0.75	0.64	0.80	1.04	1.21	1.21	1.16	1.16	1.29
Black / African American	1.10	1.33	1.51	0.92	1.19	0.69	1.29	1.00	1.17	0.60	1.00	1.35	1.25
Asian / Asian American	0.95	1.42	1.34	1.44	0.79	1.16	0.88	1.03	1.26	1.18	1.39	1.15	1.12
Multiethnic (2 or more)	0.96	1.54	1.19	1.07	1.09	0.96	0.77	1.01	1.14	1.20	1.03	0.66	1.42
Non-White	0.98	1.41	1.34	1.10	0.95	0.98	0.95	1.02	1.29	1.14	1.20	1.14	1.27
Male	1.07	1.23	1.09	0.96	0.86	1.09	0.93	1.24	1.27	1.19	1.29	1.13	1.35
Female	0.95	1.40	1.03	1.02	0.83	0.86	0.88	1.02	1.21	1.06	1.13	1.06	1.15
Colorado	0.99	1.38	1.11	0.96	0.88	0.93	0.96	1.11	1.26	1.16	1.24	1.05	1.26
NOT Colorado	1.04	1.27	1.01	1.05	0.78	1.07	0.92	1.17	1.17	1.12	1.19	1.15	1.25

Appendix C

University of Colorado Colorado Springs

Institutional Review Board (IRB) for the Protection of Human Subjects

Date: 7/19/2016

IRB Review **APPROVED**

IRB PROTOCOL NO.: 16-227
Protocol Title: The Future of Our National Parks: How Do Millenials Feel About America's Greatest Idea?
Principal Investigator: Troy Ruiz
Faculty Advisor: David Havlick
Application: Report of Change (1)
Type of Review: Exempt 4
Risk Level: No more than Minimal Risk
Renewal Review Level (If changed from original approval) if Applicable: N/A (No Change)
This Protocol involves a Vulnerable Population: N/A (No Vulnerable Population)
Expires: N/A*
*Note, if exempt: If there are no major changes in the research, protocol does not require review on a continuing basis by the IRB. In addition, the protocol may match more than one review category not listed.
Externally funded: ☒ No ☐ Yes
OSP#: Sponsor:

Thank you for submitting your Request for IRB Review of a proposed change (*adjusted title and survey questions)* to your original IRB protocol. The protocol identified above has been reviewed according to the policies of this institution and the provisions of applicable federal regulations. The review category is noted above, along with the expiration date, if applicable.

Once human participant research has been approved, it is the Principal Investigator's (PI) responsibility to report any changes in research activity related to the project:

- The PI must provide the IRB with all protocol and consent form amendments and revisions.
- The IRB must approve these changes prior to implementation.
- All advertisements recruiting study subjects must also receive prior approval by the IRB.
- The PI must promptly inform the IRB of all unanticipated serious adverse (within 24 hours). All unanticipated adverse events must be reported to the IRB within 1 week (see 45CFR46.103(b)(5). Failure to comply with these federally mandated responsibilities may result in suspension or termination of the project.
- Renew study with the IRB ***prior to expiration***.
- Notify the IRB when the study is complete.

If you have any questions, please contact Research Compliance Specialist in the Office of Sponsored Programs at 719-255-3903 or irb@uccs.edu

Thank you for your concern about human subject protection issues, and good luck with your research.

Sincerely yours,

Zek Valkyrie