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*PRESERVATION AND THE PUBLIC:  
AN EXPLORATORY EXAMINATION OF THE NATIONAL PARK SERVICE*

JESSICA GREER GRIFFITH  
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Reviewed and approved\* by the following:

David Shapiro  
Professor of Economics  
Thesis Supervisor

Bee Roberts  
Professor of Economics  
Honors Advisor

\* Signatures are on file in the Schreyer Honors College

## **ABSTRACT**

The National Park Service (NPS) of the United States of America oversees and protects more than 390 units, of which 58 are national parks. This thesis explores the theories of preservation and public interests as two spheres that possess differing perspectives in relation to these national park units. I argue that these two spheres have a significant impact on the current and future state of the National Park Service, as well as put forward suggestions for improvement and arguments for increased efforts in each area. Due to conflicting objectives and limited funding, the interests of the public and preservation sectors frequently compete for attention and resources. In this thesis, I analyze economic theory behind the National Park Service's balance of power between these two areas, as well as explore how funding and policies reflect the shifting priorities and focus of the NPS. To further this study, I include analyses of the budget of the National Park Service and of the economic worth of national park sites. My intention is to provide readers with an understanding of the wants and conflicting goals of the preservation and public spheres in regards to the National Park Service, as well as put forward suggestions for alternative sources of funding that could help create further balance and cooperation between public and preservation interests. I argue that it is possible to protect NPS units and to ensure that the public of today and of future generations have open access to these sites.

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## INTRODUCTION

There are 58 scenic national parks in the United States of America. Unique, beautiful, and educational, these parks contain some of the nation's most spectacular natural wonders and important history. There are also an estimated 334 other preserved units in the National Park Service, which include national monuments, national historical sites, national seashores, national battlefields, and national memorials. In total, there are nearly 400 National Park Service units spread out across the United States of America that citizens and travelers from around the world can visit and explore (U.S. NPS, 2010). Brimming with wildlife, historic structures, and breath-taking views, National Park Service units are treasures to be cherished and conserved for generations to come. As former President Franklin Delano Roosevelt once remarked, "There is nothing so American as our national parks. The scenery and wildlife are native. The fundamental idea behind the parks is native. It is, in brief, that the country belongs to the people" (Margolis, 2010, 1).

George Catlin was one of the first people to think of the idea of national parks and the "concept of large-scale natural preservation for public enjoyment" (Mackintosh, 1991, 12). During Catlin's travels across the United States as an artist, he worried about the rapid decimation of wildlife caused by westward expansion and the conservation of many of the special places he viewed. As admiration for these lands increased, the idea of preserving lands for national parks became more concrete and members of the public began to take action. A variety of conservation advocates started to champion the concept of national parks. Stephen Mather, J. Horace McFarland, and Robert Sterling Yard, for

example, created a campaign to advertise potential benefits of public parks, and John Muir tirelessly petitioned Congress in support of the National Park Bill (U.S. NPS, 2010).

On March 1, 1872, Congress established the first national park—Yellowstone National Park—to be designated and administered by the federal government. It was not until August 25, 1916; however, that Congress passed a bill signed by President Woodrow Wilson to create the National Park Service (NPS) within the U.S. Department of the Interior. First directed by Stephen Mather, the National Park Service was established to manage the 35 parks and historical units under its jurisdiction (U.S. NPS, 2010). Since its inception, the National Park Service has grown to be a large federal agency that now oversees almost 400 NPS units enjoyed by millions of visitors a year.

Despite the immense pride of many people for these national sites, the National Park Service is not immune to conflict, changes, and insufficient funding. Throughout its history, the NPS has undergone power struggles between public and conservation advocates whose frequently differing desires, priorities, and interests have conflicted. Adding to the tensions between the public and preservation spheres has been pressure from the National Park Service's limited budget. On average, NPS units operate with only about two-thirds of the needed funding they require, and the National Park Service as a whole suffers a lack of about \$600 million annually (Feitlinger et al., 2004, 4). This limited funding has forced the preservation and public spheres to compete against each other for the Park Service's and the public's funds and attention.

While the preservation and public spheres are both critical to the survival and strength of the National Park Service, not all of their wants can be satisfied due to limited resources and their conflicting nature. As a result, the National Park Service works to find

a balance between the two spheres, as well as choose how best factors of production and funds should be distributed between them. Various disputes arguing for and against preservation and public desires have also occurred, such as if certain aspects of a park's natural beauty should be compromised to improve visitors' experiences and to what extent recreational usage should be restricted in parks. These debates have not only played an important role in the development and transformation of the National Park Service over the years, but also have led me to further understand the significant influence these two spheres have on the current and future state of national park units.

This thesis begins by exploring the interests and wants of the public and preservation spheres, which clamor to have their desires satisfied by the NPS, government, and the public. I then analyze economic theory behind the National Park Service's balance of power between these two conflicting areas, as well as explore how funding and policies reflect the shifting priorities of the NPS. Upon examining the economic worth of the National Park Service to national and local economies and the limited funding available, the need to increase funding and find compromise between the public and preservation sectors becomes even more apparent. By finding alternative sources of funding, I argue it is possible to create further balance and cooperation between preservation and public interests in order to protect NPS units and to ensure that the public of today and of future generations have open access to these sites.

## **PRESERVATION SPHERE**

Preservation entails protecting or conserving something from potential damage or danger. According to the National Park Service Director Jonathan Jarvis, “Preservation is deciding what is important, figuring out how to protect it, and passing along an appreciation to others” (Kupper, 2010). When it comes to preserving national parks and historical sites however, tasks require an immense amount of effort and support due to the extensive size of the areas protected. The National Park Service’s “archeologists, architects, curators, historians, and other cultural resource professionals preserve, protect, and share the history of this country and its people,” which encompass an estimated 27,000 historic structures, 66,000 archeological sites, and more than 115 million museum items (Kupper, 2010). The National Park Service is also famous for its conservation of wildlife and nature. From giant sequoia trees to coral reefs, the National Park Service protects a rich and varied natural world that encompasses a wide-ranging array of species, flora, and life.

A common case for preserving national parks and historic sites is their aesthetic value. People derive great pleasure, enjoyment, and inspiration from the beauty of national parks. The wildlife and nature protected by the National Park Service encompasses some of the most stunning vistas in the nation, as well as a plethora of lovely scenic sites. As the United States becomes continually more developed, the undisturbed state of the natural sites in the National Park System adds to the allure of the parks. During his movement to preserve the nation’s beauty in 1965, President Lyndon Johnson described his beliefs in the *Conservation Yearbook* of the U.S. Department of the Interior.



A few years ago we were greatly concerned about the “Ugly American.” Today we must act to prevent an Ugly America. For once the battle is lost, once our national splendor is destroyed, it can never be recaptured. And once man can no longer walk with beauty or wonder at nature, his spirit will wither and his sustenance be wasted (Northrup, 2003,615).

The aspirations of many citizens, foreign visitors, and government officials to keep national parks and historical sites as close to their natural states of being as possible are critical arguments for increased preservation efforts. While the “value” of beauty cannot be measured, its significance cannot be ignored.

Threats of commercialization and development of or near national park lands cause displeasure and action on the part of preservation supporters. Deirdre Gibson (Chief of Planning and Resource Management at Valley Forge), for example, explained to me how Valley Forge National Historical Park’s natural beauty is under constant threat. Due to the park’s location in the middle of a commercialized area, visitors in the park can see visible disturbances such as gas stations and power lines on nearby lands. The park’s staff is constantly working to prevent and/or hide these man-made distractions by taking such actions as growing walls of tall trees to shield unnatural views from park visitors and asking businesses to face advertisements away from the park’s direction. However, it is hard to limit or restrict development on lands not owned by the government.

Controversial preservation issues also occur in national parks and historical sites on a larger scale. Valley Forge National Historical Park, for example, recently emerged from a publicized preservation battle, which concerned the construction of a 200 million dollar American Revolutionary Museum and Conference Center on parklands. While some supported the erection of this museum as a way to attract visitors to the park, bring

jobs to the area, and memorialize the nation's important revolutionary war history, others adamantly opposed the construction plans for fears that it would interfere with the park's serene beauty (Rose, 2009). Ultimately, Valley Forge National Historical Park preservation advocates won this battle by forcing the museum to be located elsewhere.

The protection of wildlife and nature is another widespread contention for the preservation of National Park System sites. Many animals and plants need undisturbed habitats and undeveloped areas to survive. Antelope and buffalo, for example, require large spans of land to graze and to roam. Sequoia trees, some of the oldest living organisms in the world, need areas protected from logging and commercial companies to continue to grow. For this reason, many preservationists argue for stricter legislation in order to protect wildlife from people who visit parks. In Shenandoah National Park, for example, black bears are sometimes killed illegally for profit. In the Great Smoky Mountains, rare plants are stolen (Feitlinger et al., 2004, 5). Without the federal government's support and protection of lands in the National Park System, it is difficult to see how many species could survive.

Since Congress passed the Endangered Species Preservation Act in 1973, the National Park Service has helped to reduce plant and animal extinction risks. The NPS has also worked to restore the number of species that have declined due to economic development and invasions of non-native species. As explained by the Department of the Interior, "The Endangered Species Program works to sustain and to recover over a thousand populations of federally listed threatened and endangered species in 204 of the 392 NPS units" (2010). In addition to bringing back species of wildlife from near extinction, the National Park Service also monitors and reports population trends of

threatened and endangered species (Dept. of the Interior, 2010). Without protection, the variety of wildlife in national parks could decline dramatically and even result in the permanent extinction of certain plants and animals. Since all life forms on earth are interdependent in the “web of life,” extinction of certain wildlife could negatively influence the survival and health of other species (Gore et al., 1992, 363).

Many nature sites, similar to living organisms, are interdependent and connected to natural resources. The wetlands of the Florida Everglades, for example, are reliant on slow-moving water for ecosystem survival. Ditching for agricultural purposes after Florida became a state in 1845 caused damage to the ecology of the Florida everglades until the National Park Service established the wetlands as protected. Conservation efforts by the NPS, such as restoring the Kissimmee River to its original path, have helped to restore some areas of the park. However, some of the native wetlands, animals, and plants were irreparably destroyed (Gore et al., 1992, 364). Preservation efforts by the National Park Service are needed to ensure the survival of a variety of species on Earth.

Conservation efforts also provide many indirect benefits to national parks and their surrounding areas. The value of “wild animals, birds and reptiles in helping control the spread of insects and other pests” is discussed in the work, *Our Natural Resources and Their Conservation* (Gore et al., 1992, 363). While it would be complicated to attempt to assess the worth of such a benefit, its importance should not be overlooked. Hawks, for example, are natural predators of blackbirds. When hawk populations decrease due to destruction of their habitats (as would be the case if national parks were not properly preserved), populations of blackbirds tend to increase. As a result, farmers have to deal with troubles from large flocks of blackbirds. As Gore et al. state, “Without

the help of these creatures in maintaining nature's balance, food crops would be devastated, life would be untenable and our entire economic system would collapse" (1992, 363). By preserving natural environments, the problem of animals, pests, and birds being forced out of their natural habitats into developed areas where they could cause problems is also reduced. Bears roaming through towns, rummaging through trash bins, and potentially harming people, for example, are avoidable nuisances if natural habitats are properly conserved.

People who argue for increased preservation efforts in national parks and historic sites claim that we, as human beings, need to take responsibility for our nation's wildlife and natural lands. Detrimental human effects, such as habitat destruction, pollution, overhunting, and climate change not only negatively affect parks' natural environments and wildlife's survival rates in the present day and age, but also can have permanent effects in the future. A careless camper visiting a national park can potentially ignite a devastating forest fire that destroys acres of land and habitats by improperly putting out his or her campfire or dropping a cigarette butt on the ground. Tourists who attempt to draw animals closer to their location by luring them with treats can severely affect an animal's survival rate by causing wildlife to become dependent on human food instead of hunting or scavenging.

The supply of well-preserved and pristine land in this country is dwindling. National parks and historic sites are an asset to the nation because they protect some of the most striking natural beauty and wildlife in the country, benefit the economy, and prevent the extinction of species. Preservation advocates constantly work to prevent these areas from damage by fighting for their pure preservation. From individuals to

organizations that unite people together to fight for the protection of national parks (such as the National Park Conservation Association), advocates work hard to campaign for the National Park Service, to educate the public, and to support stricter legislation that addresses threats to parks. Preservationists not only wish to justify the conservation of wildlife and nature for generations of today, but to preserve them so that they will still be here for future generations of tomorrow.

From working to eliminate pollution in the park to fighting against oil and gas development, conservation issues are central to many discussions concerning the future of the National Park Service. At times however, there is a conflict of interest between preservation efforts and the desires of other sectors, such as the public.

## **PUBLIC SPHERE**

National parks and historic sites were created for the public to use and to enjoy. In 2010, 281 million tourists flocked to national park units across the country (Street, 2010). Reasons for visitation are wide-ranging and cover such areas as recreational use, historical value, educational opportunities, wildlife viewing, natural beauty, and solitude. Visitor demographics vary greatly as well, which lead many to conclude that there is no such thing as a typical park visitor. Spanning all age groups, genders, backgrounds, and nationalities, visitors to national park units comprise a varied group.

Due to visitors' diverse backgrounds and multiple uses of parks, it is often difficult for the National Park Service (NPS) to determine what actions should be taken to make all visitors have meaningful and enjoyable experiences. The National Park Service's mission explicitly states its goal is to "preserve unimpaired the natural and cultural resources and values of the national park system for the enjoyment, education, and inspiration of this and future generations" (National Park Service, 2011). The NPS also attempts to follow one of its primary guiding principles to "provide the best possible service to park visitors and partners" (National Park Service, 2011). When usage encompasses such varied activities as snorkeling, running, hiking, historical reenacting, mountain climbing, relaxing, animal watching, and biking however, it is clear that there is no one remedy that will improve all visitor experiences uniformly.

In order to understand how best to enhance visitors' experiences, it is critical to gain an understanding of park visitors and their opinions of national parks. For this reason, National Park Service employees distribute questionnaires to people in parks and historical sites across the nation in different seasons. Since surveying every visitor to a

national park is too large for researchers to attempt, NPS employees make efforts to try to survey a random sample of people that accurately reflects the characteristics of the population from which they are drawn. In spite of this, there are inherent difficulties that arise when attempting to obtain a representative sample of visitors to complete questionnaires. Samples become unrepresentative, for example, when certain types of people in the sample do not opt to return their questionnaires (such as foreigners) or when various groups of people never receive questionnaires to complete (such as those visitors that seek solitude in nature).

As a park employee, I was involved with the survey process and trained on proper distribution methods to use to attain as random of a sample of visitors as possible. I learned the importance of offering questionnaires to all types of park visitors, not just those who appear to be most willing to take the survey. I also found it helpful to stress to visitors that the National Park Service already paid for return postage so they would not have to worry about paying postal fees. I limited questionnaires to one per group, and offered surveys translated in different languages to those visitors who were not native speakers. Survey distribution took place over a period of three weeks in order to diversify the sample as much as possible. In addition, multiple employees who work in various areas of the park were responsible for giving out surveys in an attempt to reach different types of park visitors.

Survey questionnaires are different for each park, and tend to take about twenty minutes to complete. Normally, visitors take the questionnaires home and mail them back to the park with pre-paid postage. Typical questions inquire into such things as trip planning details, information resources, group size, duration of visit, time of entrance to

the park, overnight stays in the park or in an area within 50 miles, and expenditures both inside and outside of the park. The questionnaires include sections that allow visitors to rate particular services and facilities on a scale from 1-5 (from very poor to very good). There are also optional questions that ask visitors to provide information about their race, age, hometown, and native language. Questions that tend to vary depending on the park involve inquiries into people's awareness of specific regulations, such as food storage regulations in bear country and fire policies. Surveys are also designed to reveal the extent to which visitors partake in various activities, such as viewing scenery, bird watching, studying nature, overnight backpacking, wildlife viewing, creating art, attending ranger-led programs, visiting the visitor center, taking a scenic drive, eating in park restaurants, day hiking, and shopping (National Park Service, 2011).

In order to provide an example of sample survey responses, I have examined the results from Yosemite National Park's summer questionnaire from the year of 2009 (National Park Service, 2009). This survey provided critical information related to visitors' backgrounds, expenditures, and activities within the park to Yosemite and National Park Service employees. On average, for example, visitors reported spending about \$874 per trip in the park and its surrounding areas as a group or as individuals (if they were traveling alone). The most common site visited was Yosemite Valley (70% of visitors), and the most common visitor activity was viewing scenery (93%). About two-thirds of the visitors stayed overnight in the park and its surrounding areas (69%), with the average length of stay being around 2.4 days. A large percentage of visitors were from the United States (75%), and the majority of visitors traveled in family groups (69%).



Visitors' numerical ratings of the quality of facilities and services tended to range between 3.4 and 4.6 (on a 1-5 scale.) The average evaluation of the overall quality of facilities, services, and recreational opportunities by park visitors was 4.33. Within that rating, the Yosemite Valley loop shuttle bus service was evaluated as 4.33, indoor exhibits as 4.12, ranger programs as 4.55, restrooms as 3.4, in-park restaurants as 3.7, and value for entrance fee paid as 4.45 (National Park Service, 2009). Surveys, such as the Yosemite questionnaire described above, are unable to reflect every visitor's preferences and opinions because not all people who are provided with questionnaires answer all of the questions or send the questionnaires back to the park. Older adults, for example, tended to complete the Yosemite survey more than younger visitors (the mean age of respondents was 48). In addition, data potentially contain some error and variation due to the fact that people may interpret the same survey questions differently, have inaccurate recollections (especially for responses that required numerical values), and may not provide the complete truth. While park surveys may not represent the entire population of park visitors and may have variations or error in data reported, their ability to provide insight into visitors' experiences, demographics, and satisfaction levels are valuable. Questionnaires not only help park management understand what areas of the park visitors use the most, but also reveal aspects of the park that visitors are either satisfied with or believe need improvement,

The National Park Service and United States government want to keep visitors happy in order to have high visitation rates at national parks and historical sites. High visitation rates validate funds allocated for the National Park Service by the government and ensure jobs for NPS employees. In addition, money spent by park visitors helps to

preserve lands and stimulate hundreds of local gateway economies in surrounding communities. In 2007, visitors spent an estimated \$11.8 billion around the parks, which supported around 209,000 jobs, \$4.5 billion in labor income, and \$7 billion value added (Gramann, 2009). If visitation rates decline, the National Park Service is negatively affected, national parks and historical sites are at risk for not receiving adequate funding, and surrounding regions whose local economies have become reliant on tourist expenditures suffer.

In addition to visitor questionnaires and studies, the government occasionally holds listening sessions to better understand the public's feelings towards national parks and recreational outdoor pursuits. President Obama called upon senior government officials to host a series of public listening sessions across the country this past summer (2010) as a part of America's Great Outdoors Initiative, which included a separate session for youth aged 14-25. The purpose of these forums was to enable members of the public to voice their concerns and interests related to outdoor conservation, historic preservation, recreational opportunities, and national park units. Between June and September of 2010, about 32 listening sessions were held in cities and towns across the nation with representatives from the U.S. Department of the Interior, U.S. Department of Agriculture, the Environmental Protection Agency, and the White House Council on Environmental Quality (Dept. of the Interior, 2010). My participation in the Philadelphia listening session on July 27, 2010 enabled me to observe first-hand how one of these sessions operated, as well as how a portion of the public currently feels toward the National Park System and the outdoors.

People in attendance at the Philadelphia listening session made it clear that they valued the “Great Outdoors” and wanted more opportunities to connect or reconnect with nature. Most attendees at the session stressed the importance of preservation and their desire for the federal government to help with conservation efforts. Given the fact that this session was held in Philadelphia, it is critical to note that the majority of participants viewed national parks and historical sites from an urban perspective. The majority of people in attendance, for example, were most familiar with Philadelphia’s urban Independence National Historical Park. In addition, the sample population of people from the public who attended the session was likely biased since those who favored the conservation of national park units were probably the ones most likely to set aside the time to attend. Understanding the potential predispositions of people present at this session is important to bear in mind when analyzing the public opinions that the federal government received.

At the Philadelphia listening session, members of the public enthusiastically provided federal government representatives in attendance with feedback and suggestions during both the general session and small breakout groups. When asked why preservation of national parks and historical sites was important, for example, members of the public provided an expansive list of reasons ranging from recreational opportunities, personal enrichment, historical appreciation, connection with the outdoors, and preservation of heritage for future generations to enjoy. Many people at the Philadelphia listening session also stressed their beliefs that proper conservation of national parks and historical sites is significant because national parks were created for all people to enjoy—not just the wealthier sector of society (America’s Great Outdoors: Listening Session, 2010).

Another area of discussion that I found to be particularly informative was dialogue between younger members of the public about which obstacles they believed prevented people from enjoying national parks and historical sites. Accessibility, time, information availability, and lack of public engagement were some of the impediments frequently discussed. In response to these obstacles, younger members participated in an open youth forum to converse and to brainstorm actions to take to overcome such hurdles and increase visitation rates. Many ideas were shared, which ranged from radio contests offering free trips to national parks, youth activity programs to spark outdoor interest among kids, park concerts, escalation of local pride, national park internships, and school trips. Participants also drafted a list of further recommendations to be shared with President Obama and National Park Service directors, which included such suggestions as celebrity endorsement, increased advertisement for national parks in diverse areas (such as Facebook and videogames), discounts for park volunteers, national park summer camps, and an expansion of the Teacher to Ranger to Teacher (TRT) program. TRT links national parks with teachers from low-income school districts. These teachers spend a summer working as park rangers, and carry out such responsibilities as staffing visitor centers, presenting interpretive programs, and developing curriculum-based materials (Dept. of the Interior, 2010).

Good opinion research is needed to help the National Park Service improve and advance. Public opinion is plentiful, complicated, and valuable. The NPS will be able to benefit from guidance by not only researching opinions, but also acting on suggestions. National Parks were created for the public, and those in favor of public interests argue that it is critical for the NPS to understand how Americans want the NPS to progress and

what trade-offs they are willing to accept to ensure the survival of national park units for future generations.

## CONFLICTING INTERESTS

Economics is about choices. A fundamental economic problem is one in which unlimited wants exist, but choices must be made to satisfy certain wants over others due to limited means and finite resources. National Park Service management and staff are constantly forced to make choices between preservationist and public desires, especially when their wants conflict. Finding a balance and choosing between preservation and recreational public interests in NPS units is often difficult, and involves determining how best factors of production and resources (such as capital and labor) should be allocated. The amount of lighting in NPS units at nights, for example, is debated in relation to its advantages and disadvantages within the preservation and public spheres.

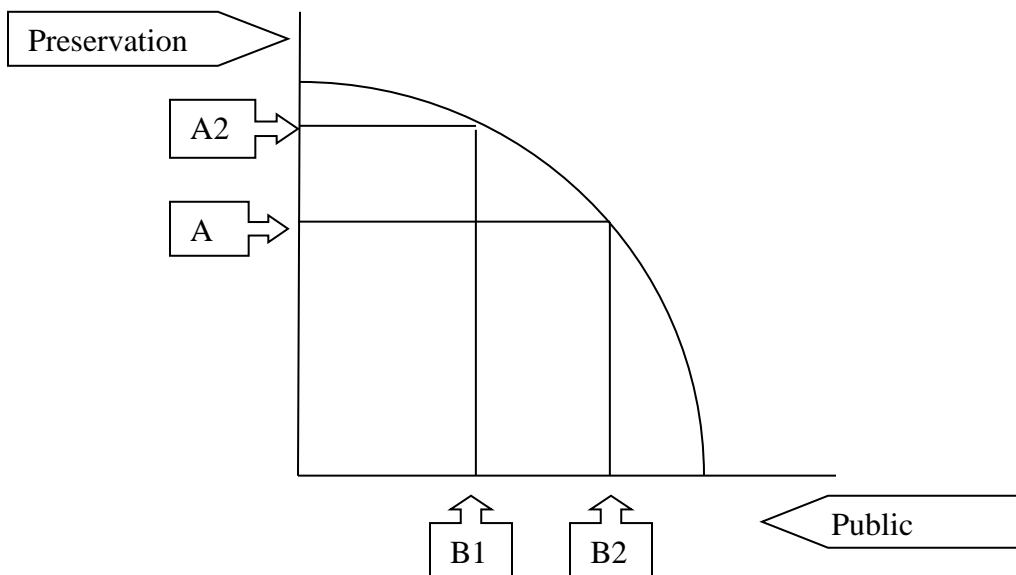
Conservationists tend to argue against using significant amount of lighting at night since lights detract from the natural beauty of the night sky and use funds that could be spent for other purposes. Advocates of public usage typically support ample lighting in areas of the park that the public utilizes at night to improve the public's ability to navigate and to increase safety precautions. Essentially, the National Park Service becomes responsible for prioritizing which of the wants of preservationists and the public should be filled and to what extent.

A continual interest of the public sphere, for example, is to improve visitors' experiences by making transportation throughout the park as easy and accessible as possible. In some parks, such as Yellowstone National Park, roads are heavily congested in busy seasons. Due to the park's rural surroundings, most visitors arrive in Yellowstone in a personal vehicle, such as a car or RV. However, Yellowstone was not designed for many vehicles, especially bigger ones, considering the fact that it was the United States

first national park. The roads are narrow, and there are not many parking spaces large enough to accommodate RVs. For this reason, narrow roads become easily backed-up for miles when visitors pull over or stop their cars in the middle of the road to take pictures of animals. In addition, parking lots become quickly full when larger vehicles end up having to take multiple spaces. As a result, people who prioritize the public's interest in regards to national park units believe roads should be expanded and more parking lots constructed to help alleviate congestion and improve visitors' experiences.

Conversely, preservation advocates tend to argue against changes such as bigger roads and more parking lots. These people are concerned that less green space in national park units will detract from natural beauty. Expanding roads and parking lots not only decreases the aesthetic value of the park, but also fragments landscapes. In addition, new roads and parking lots could isolate the natural habitats of animals, such as grizzly bears in Yellowstone National Park. The isolation of habitats could prevent the genetic interchange among populations of animals, which is a significant factor for long-term species' survival (Wildlife Conservation Society, 2010).

Due to conflicting interests, choice and opportunity cost issues arise. Since all wants are unable to be fulfilled, NPS management and staff need to trade off options. In the transportation example described above, the problems of whose wants to prioritize, what to construct, and how to go about renovations are debated. Every decision has an opportunity cost, which accounts for the forgone opportunities associated with specific choices. A production possibilities curve (PPC) helps to graph the trade-offs inherent in such decisions.



Without any changes in the productive resources available, the NPS has to decrease its ability to satisfy preservation wants if it wants to increase its ability to satisfy public wants and vice-versa. Points along the PPC curve indicate the trade-off between the National Park Service’s ability to satisfy wants between the two sectors. In the graph above, for example, the National Park Service can satisfy B2 units of public wants rather than B1 units by sacrificing  $A2 - A1$  units of preservation wants. In other words, the opportunity cost of satisfying B2 units in comparison to B1 units of public wants is  $A2 - A1$  units of preservation wants since some resources must be transferred from satisfying preservation wants to satisfying additional public wants in this scenario.

The outward bowed shape of the production possibility curve indicates that the opportunity cost of satisfying more wants of a sector will change as we move along the curve. NPS management and staff are responsible for finding an optimal point on the PPC curve that they believe best balances preservation and public interests. By creating sample indifference curves demonstrating the preferences between people who favor



public wants and those who favor preservation wants, this situation is better comprehended.

FIGURE 1:

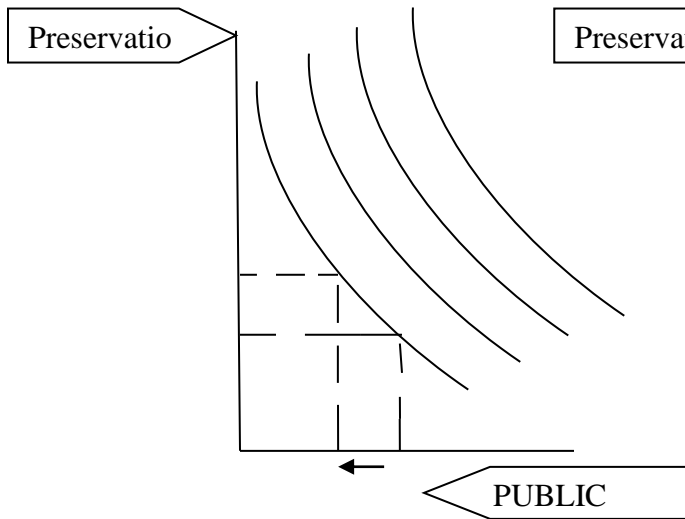
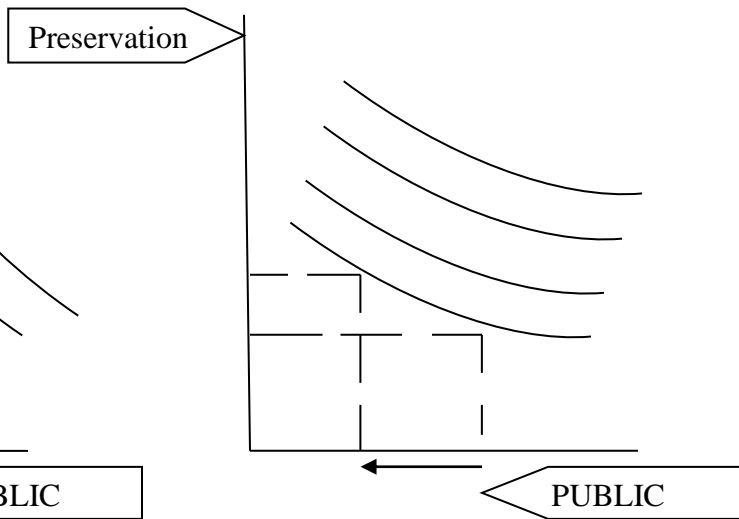


FIGURE 2:



As is demonstrated by the above indifference curves, those people who favor public wants (depicted by figure 1) are not very willing to sacrifice public wants in exchange for preservation. In order to give up even a small amount of public wants, a large amount of preservation wants have to be able to be satisfied instead. In comparison, those people who favor preservation wants (depicted by figure 2) are not very willing to sacrifice preservation wants in exchange for public wants. These people tend to be willing to give up a large amount of public wants in exchange for an increase in the number of preservation wants that can be satisfied to even a small degree. Depending on whose wants are to be prioritized, the NPS is able to use indifference curves such as the above to help them determine where the optimal point of production should be on a PPC curve that demonstrates conflicting interests between public and preservation sectors. When making such decisions, the National Park Service also searches for compromises to situations,

which will make both spheres satisfied. When the public demanded more signs to be installed in parks to help visitors navigate parklands, the NPS reached an agreement with the preservation sector by making sure all new signs were wooden or natural looking so they would blend in with the environment.

Another recent conflict of interest between preservation and public interests is the ongoing publicized dispute over recreational snowmobiles in national parks, such as Yellowstone National Park. Conservationists worry about the negative impacts of snowmobiles, especially snowmobiles' emissions, to wildlife and parks' water and air quality. They also fear that snowmobiles will hurt a park's natural beauty. Conservationists are concerned that noises from snowmobiles will negatively alter a park's ambience and detract from visitors' experiences. In addition, there are fears that snowmobiles could present potential health risks to visitors and park employees through exhaust fumes, loud noises, and misuse (Millner, 2011).

Those who support the public recreational activity of snowmobiling in parks counter such arguments by pointing out that technological advancements have made snowmobiles cleaner and quieter than in the past, which reduces their negative effects. They argue that snowmobile usage is restricted to 1% of the entire landmass of Yellowstone National Park, which provides more than 99% of the park for those visitors who seek natural solitude (Klim, 2002). Snowmobile advocates also highlight the economic benefits of snowmobiling to local communities, and stress the importance of public access to lands. In the United States, snowmobiling is a \$27 billion industry and the average snowmobiler spends \$4,000 annually on recreation (Millner, 2011). The snowmobile industry in the winter season accounts for a significant portion of revenue

for many small towns that border national parks. The town of West Yellowstone, Montana, for example, served as the access gateway for more than half of the 65,000 snowmobilers who entered Yellowstone National Park in 2001. Without snowmobiling in Yellowstone National Park, an estimated 75% of the town's snowmobile profits would have been eliminated (Millner, 2011).

Jen Millner adeptly summarizes the conflict in her study of snowmobile usage in national parks. She encourages people to question if “the park is a place which is meant to “conserve the scenery and the natural and historic objects and the wildlife therein,” as stated in the Organic Act of 1916, or is it “a public park or pleasuring ground for the benefit and enjoyment of the people,” as stated in the 1872 dedication of Yellowstone as the world's first national park?” (Millner, 2011). Snowmobiles in Yellowstone National Park were banned in 2001. Snowmobile manufacturers and supporters argued so hard against this movement, however, that the ban was overturned in 2003 (Millner, 2011). People remain divided over the issue today, and legislation is continuously debated as the public and preservation spheres pursue their interests.

Due to the National Park Service's preparation to release its draft of a new winter-use plan for Yellowstone National Park in the near future, there has been a recent upsurge in debate over snowmobiles in national park lands. Potential compromises to the controversy have included such ideas as creating daily entrance limits, requiring guided tours, plowing more roads, and increasing snowcoach travel in the park in an attempt to phase out snowmobiles (Millner, 2011). Snowcoaches are specialized passenger vehicles with bus style seating that typically are used for sightseeing tours or snow transportation. These coaches have either very large low-pressure tires or tracks that allow them to

operate over snow or ice. Snowcoach travel, in comparison to snowmobile travel, is a particularly noteworthy subject to examine since snowcoach vehicles are able to provide many of the benefits of snowmobiles with less negative effects to the environment.

In order to understand the preferences of park visitors between these two modes of transportation, consumer choice is examined. Since income and time are limited, but choices are numerous, visitors face trade-offs when making purchase decisions. In order to choose between snowmobile and snowcoach travel, consumers take into account budget constraints and preferences. After examining the prices of the two options, I found that snowcoach travel tends to be cheaper than snowmobile travel. When booking through Yellowstone Travels, one of the area's vacation planning and reservation services, a snowcoach typically costs about \$109 to \$119 per person depending on the tour. In comparison, snowmobiles cost \$134 per person to rent, as well as an additional \$40 per snowmobile park access fee and \$15 rental gear fee for a snowsuit, boots, helmet, and gloves (Yellowstone Vacations, 2011).

When it comes to consumer preferences, it is helpful to analyze the similarities and differences between the two transportation modes in order to get an idea of what type of person would prefer each option. Snowcoach vehicles reduce emissions, noise, and traffic in the park since each vehicle can hold between 6 to 32 passengers in comparison to the one or two people per vehicle that snowmobiles carry. Both forms of transportation enable park visitors to view wildlife, explore unplowed areas of the park, and follow geothermal trails. Snowcoach travel is accessible to visitors of all ages, and provides a more comfortable and warm experience than snowmobiles. On the other hand, snowmobiles provide a unique thrill and challenge to visitors who prefer to drive their

own vehicles around the park and do not mind that there is no enclosure other than a windshield (Yellowstone Vacations, 2011).

Indifferent consumers who have no preference between snowmobile and snowcoach travel are also important to this study because conservationists and snowmobile supporters try to influence their decisions. Since indifferent customers get the same utility from either option, marketing, persuasive tactics, and increased knowledge can be decisive swaying factors for those visitors who would be willing to travel via either mode.

Data representing the numbers of consumers using each type of transportation option is used to demonstrate to NPS staff and employees, as well as other interested parties, how rational consumers choose between two goods such as snowmobile and snowcoach travel. In recent years, the percentage of snowcoach riders has increased, while the percentage of snowmobile riders has decreased (Kidston, 2011). The program director for the Greater Yellowstone Coalition, Mark Pearson, believes “the decline in daily snowmobile riders represents a consumer choice. As more people become aware of the snowcoach option, they’re choosing to go in that way” (Kidston, 2011). Consumer choice analyses are important because they help the National Park Service determine what type of plan to implement for the future when facing conflicting interests, as well as help businesses forecast future sales.

## **ECONOMIC WORTH OF THE NATIONAL PARK SERVICE**

A motivation for both increased preservation and increased public usage of national park units is the economic worth of national parks and historical sites. The economic worth of the National Park System is not easy to calculate since national parks and historical sites are not sold in private markets. Since national parks are not privatized, it is difficult to compute their value based on quality, accessibility, and scarcity measures (Gore et al., 1992, 13). However, it is critical to understand that national parks do have economic value and contribute to both local and national economies.

To begin, there is a clear demand for national parks based on the large number of visits to national park units each year. In 2008, for example, there were more than 270 million recreational visits and 161 million non-recreational visits to national park units (NPS STATS, 2008). In economics, demand typically refers to the quantity of a product or service desired by buyers at a certain price. In regards to national parks and historical sites, those that are more popular usually charge a small admission fee, while less visited parks and sites tend to be free. The general rule of demand also holds true on special free entrance days to national parks, which commemorate certain holidays. On these fee-free days, national park units typically experience a larger than normal influx of visitors (NPS STATS, 2008).

The millions of visitors to national parks and historic sites bring millions of dollars into local and national economies through tourism and recreation. In order to get to many destinations within the National Park System, tourists often have to drive or fly. These travel expenditures benefit the airline and gasoline industries. At the parks, many visitors purchase souvenirs from various concessions and bookstores operated within

national park units, which add to the economy. In addition, many national park visitors live more than a day's travel away from the park they are visiting, which translates into food, lodging, and local business profits as well. During 2008, over 13.8 million visitors spent a night in a national park service unit. Over 3.59 million of those visitors spent at least one night in lodges located in these parks, such as the famous Ahwahnee Hotel in Yosemite National Park (NPS STATS, 2008).

Foreign tourists play a large part in boosting the economy as well. In many national parks and historic sites across the nation, especially those located in the west, it is common to hear many languages spoken and to meet tourists from other countries. According to the U.S. Department of Commerce, "International visitors to the United States increased to more than 56.7 million people in 2007. Visitors from Canada, Mexico, England, Japan and Germany top the list" (Myers, 2008). Although many national parks and historic sites do not keep official records of visitors' nationalities, some people predict that foreign tourists may comprise up to 40% of all visitors in some of the more iconic parks, such as the Grand Canyon (Myers, 2008).

During some of my personal trips to national park units, I have been fortunate to meet and communicate with many foreign visitors. I have found that some Europeans enjoy visiting the national parks of the United States because they are very different from parks in their native countries and symbolize what some foreigners believe to be the "true America." Since a large number of Western and American movies were filmed in national parks and historic sites, many European travelers grew up with movies and images that depicted the United States as a land full of the picturesque national park landscapes. Another reason for increased foreign visitation to national parks and historic

sites is the currently strong euro. Many foreign tourists find travel to national units to be affordable, and often a bargain. Money from tourism, goods, and services purchased by both American and foreign tourists in the National Park System have a direct impact on the United States GDP.



## NATIONAL PARK SERVICE BUDGET

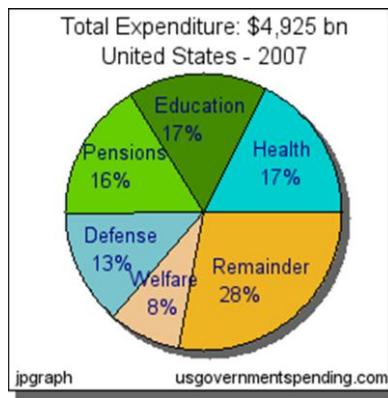
This section is designed to provide the reader with a framework for understanding the National Park Service's budget. In order to understand the money spent by the federal government to support national parks, it is important to first look at the economy of the United States as a whole to understand the source of National Park Service funding.

Fiscal Year	US Gross Domestic Product (GDP) (billions of dollars)	Total Government Expenditures (billions of dollars)	Government spending as a percentage of GDP
1950	293.7	70.3	23.9%
1960	526.4	151.3	28.7%
1970	1,038.3	321.8	31%
1980	2,788.1	940.2	33.7%
1990	5,800.5	2,089.0	36%
2000	9,951.5	3,240.2	32.6%
2007	14,077.6	4,924.6	35%

Source: Chantrill, Government Spending in United States

For the most part, as GDP increased over the years, total government spending as a percentage of GDP also increased (Chantrill, 2011). The percentage of GDP spending that was not government expenditures was largely accounted for by private spending.

The percent of GDP represented by government spending is broken down further to account for key areas that the government funds, as illustrated in the pie chart below.



Funding for the National Park Service falls into the “remainder” category of federal expenditures that is separate from those funds set aside for such areas as entitlements, national defense, and education (Chantrill, 2011). In addition to the NPS, money in the “remainder” category is spent for such areas as waste management, community development, pollution abatement, fuel, energy, and water supply (Chantrill, 2011).

Funding for the National Park Service comes primarily from four sources. The majority of funding comes from appropriated base funding, which is the appropriation of tax dollars the US Congress allocates for the National Park Service as a whole. This money is used to pay for permanent staff and recurring operating expenses. The second source of funding is appropriated non-base funding, which is allocated by the federal government as well. These funds are awarded on a competitive basis and are granted for one-time project funding or investments. The third source of funding is reimbursable funds, which come from cost recovery for services provided to other federal agencies and entities. Revenue is the fourth source of funding, which is generated through such things as recreational fees (about \$190 million per year), park concessions franchises (about \$60 million per year), filming and photography special use licenses (about \$1.2 million per year), leasing, and donations from friends’ groups, local nonprofits, supporters, and park visitors (Dept. of the Interior, 2011).

After the government decides the amount of appropriated funds it will provide to the National Park Service in a fiscal year, the NPS develops a budget. This budget is included as a part of the Department of Interior budget, which is then submitted with the rest of the Executive Branch’s budget to Congress for review and approval (U.S. Dept. of the Interior, 2011).

Year	NPS Appropriations	Full Time Employees
1950	30,104,850	N/A
1960	87,400,000	N/A
1970	228,459,000	N/A
1980	1,173,610,000	15,783
1990	1,080,119,000	17,365
2000	1,849,189,000	19,808
2007	2,289,959,000	19,832
2010	3,160,000,000	21,574

\*Data provided by Guthrie, NPS: Budget Formulation Division

The appropriated base funds are used to finance parks’ obligations, carry out everyday operations, and pay staff (Guthrie, 2011). These funds are not always large enough to cover all expenditures however, which can result in reduced staffing levels and operational deficits across the park. Factors that increase personnel costs such as federal pay increases mandated by Congress, within-grade pay increases, and higher cost for retirement benefits, for example, are not always adjunct to increased base funds (Bransford et al., 2006, 9).

## **I. Distribution of Funding within a NPS Unit**

The division of funding to the five main functional areas of each national park unit is a complicated and frequently debatable process since each park is allocated a limited amount of taxpayer dollars each year. Resource protection, visitor experience and enjoyment, facility operations, maintenance, and management and administration are five of the primary areas that every national park unit is responsible for funding (Bransford et al., 2006, 13).

Common expenditures for resource protection are cultural resource management, natural resource management, information integration and analysis, and resources management and administration. Without proper resource protection funding, native species' habitats could be potentially threatened, invasive plants and animals could multiply, understaffing could hinder natural and cultural preservation operations, and historic landscapes and structures could be permanently destroyed (Doughty et al., 2003,16). In the long term, damage to natural and cultural resources could negatively affect the National Park Service's survival for future generations to enjoy.

Education, fee collection, interpretation, welcome center operations, visitor safety services, and visitor use services are some of the primary programs funded through visitor experience and enjoyment expenditures. Services such as guided walks, school programs, medical emergency assistance, commemorative events, costumed interpreters, search and rescue operations, and visitor orientation are additional expenditures that enhance visitors' experiences (Doughty et al., 2003, 18). Since providing a safe and pleasant experience for all visitors is a primary goal of many NPS rangers and staff, the

need for funding for educational, safety, and visitor use services is often a significant portion of a park's total expenditures.

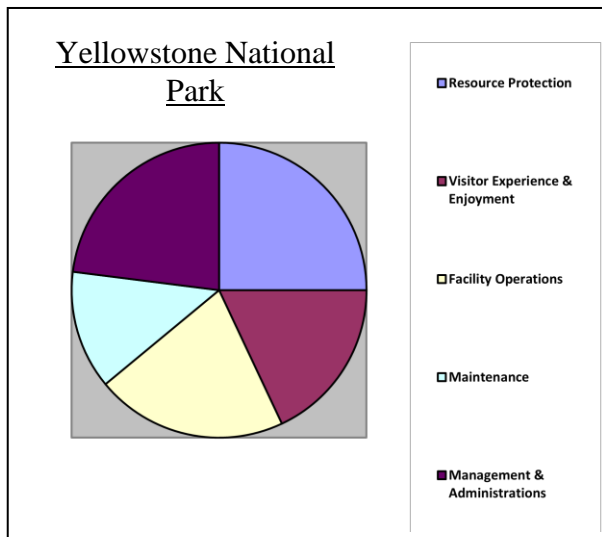
Facility operation funds cover the costs of daily activities in NPS units, such as the operation of welcome centers, administration and education complexes, historic buildings, picnic areas, trails, and roadways. In addition, funding from facility operations pays for expenses such as lawn mowing, snow clearing, sign maintenance, electrical and plumbing inspections, janitorial operations, road operations, and trails operations (Bransford et al., 2006, 18). Without facility operations, parks would fall into disarray, visitors' safety would be compromised, and public spaces would become less presentable and clean. While facility operations are easy to take for granted when smoothly operating, their negative impact on national park units' environments and visitors' experiences would become easy to observe if insufficiently funded.

Maintenance responsibilities are similar to those covered by facility operations, but encompass more activities involving the maintenance and repair of buildings, trails, roads, utilities, and transportation systems (Bransford et al., 2006, 20). In many parks, such as Valley Forge National Historical Park, the lack of seasonal maintenance has caused some buildings to fall into such disrepair that major investment funding would be needed in addition to provided maintenance funds in order to properly rehabilitate various projects and buildings. Volunteers frequently aid staff employed in the maintenance functional area by providing free labor and assistance in trail upkeep and other areas of parks; however, appropriated non-base funds are still in high demand.

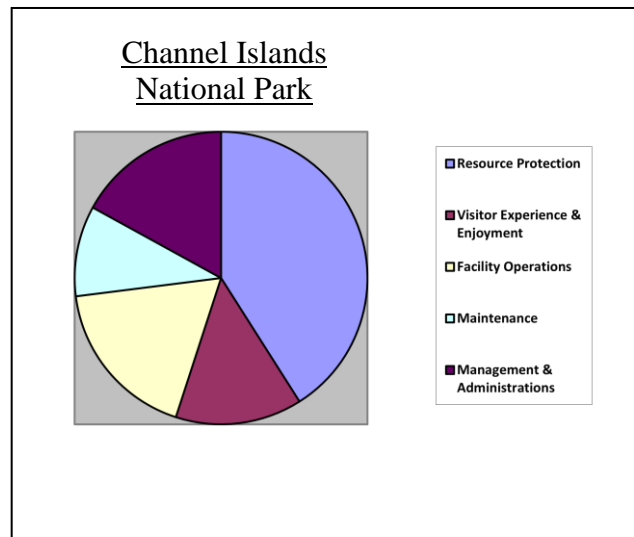
Management and administration is the fifth functional area that requires funding for such purposes as communications, general administration, partnerships, planning,

external affairs, and communications. Management and administration help to coordinate internal park activities, ensure efficient operations, as well as connect the park with external sources and the NPS as a whole. The management and administration of a NPS unit are responsible for determining the majority of a national park unit's future objectives and goals (Bransford et al., 2006, 22).

In order to gain a general idea of how national park units divide funds between these five functional areas, I compared the distribution of expenditures on park operations between Yellowstone National Park and Channel Islands National Park.



Source: Doughty et al., Yellowstone NPS Business Plan



Source: Fesenmyer et al., Channel Islands NPS Business Plan

Resource protection expenditures accounted for the highest percentage of both parks' operating budgets, with Yellowstone's resource protection as 25% and Channel Islands as 41%. In Yellowstone National Park, visitor experience & enjoyment accounted for 18% of the operating budget, facility operations for 21%, maintenance for 13%, and management and administrations for 23% (Doughty et al., 2003, 15). In Channel Islands National Park, visitor experience & enjoyment accounted for 14% of the operating budget, facility operations for 18%, maintenance for 10%, and management and

administration for 17% (Fesenmyer et al., 2004, 26). As evident from the above example, allocation of funds across categories varies depending on a park unit's discretion and priorities. Since Channel Islands National Park receives fewer visitors given its location encompassing five islands and the submerged lands and waters within one nautical mile off their shores, for example, it is reasonable that their park management and staff distribute fewer funds to the area of visitor experience & enjoyment than Yellowstone National Park.

## **INSUFFICIENT APPROPRIATED BASE FUNDING**

President Obama signed an Interior and Environment Appropriations Bill for the 2010 fiscal year, which set aside about \$2.7 billion for the National Park Service. On the one hand, this news was welcome since it was about \$218 million above the 2009 funding level (Repanshek, 2009). On the other hand, the money was so desperately needed by overdue projects that its impact barely scratched the surface of insufficient funding issues the National Park Service is experiencing.

One does not have to search hard to notice the tribulations that the National Park Service currently faces. After conversing with many rangers at different national parks across the country, I became aware of many employee concerns. In regards to the preservation sphere, employees were mainly worried about pollution threats, preservation of new lands, negative effects from public overuse, and the conservation of historical sites and documents. By not having sufficient funding to properly maintain and repair historic structures, documents, and artifacts, employees involved with preservation voiced their concern that lack of present funding could cause historical objects to require significantly more funds in the future to repair and could possibly cause irreparable damage. A Valley Forge National Historical Park employee involved with the repair and maintenance of historic structures elaborated on this dilemma to me. He explained that conserving historical sites and structures is similar to “opening a can of worms.” What could look like a simple crack repair, could end up revealing intensive water damage to the wood or structural material underneath that would then require a complete renewal financed by difficult to obtain investment funds.



In relation to public concerns, employees were primarily concerned with the closing of trails and visitor centers, the lack of repairs to facilities, the decrease in educational programs offered to visitors, the cut in school programs, and the inadequate levels of staff. Without an adequate staff, the Park Service's ability to enforce laws, educate the public, staff facilities, hold programs, and protect wildlife and historic sites are greatly diminished. Staff shortages, for example, prevented Shenandoah National Park employees from offering visitor services to 50,000 wintertime visitors and caused Redwood National and State Parks to experience 186 incidents of vandalism, arson, burglary, and theft in two years (Feitlinger et al., 2004, 7-8). John Mitchell, a previous environmental editor at *National Geographic* magazine, echoed park employees' apprehensions over reduced numbers of staff, "The most persistent complaint, was a perception that the Park Service had lost its ability to protect natural and cultural resources, largely because its rangers had morphed into traffic cops to accommodate growing throngs of park-loving visitors" (Mitchell, 2006, 4).

The inadequate levels of staffing and funding at national park units clearly have negative impacts on both preservation efforts and visitors' experiences. With the National Park Service's centennial occurring in 2016, many advocates of the National Park Service are hoping for some way to prepare and restore many parks before this special date, as well as to alleviate heightened tensions between preservation and public advocates that result from limited funding (U.S. NPS, 2010).

## **I. Appropriated Non-base Funding**

Since appropriated base funding is limited, it is critical for a park that desires additional funding to successfully compete for appropriated non-base funds, which are allocated annually in varying amounts to support onetime projects or investments in parks. The National Park Service's annual Congressional Appropriation includes some funding that is used as grants for specific issues and projects. In order to earn money from this appropriated non-base funding source, parks submit funding requests to the NPS for such things as research studies, construction projects, and renovations. Due to the fact that the number of projects and investments each park desires far outweighs the funds available, parks need to determine their top investment priorities for these requests (Dept. of the Interior, 2011). Valley Forge National Historical Park, for example, has over 175 project requests for NPS funding that would require over \$40 million to satisfy (Bransford et al., 2006, 32). Some examples of these requests are an expansion of visitor services at Washington's Headquarters (required investment: \$6,750,000), a rehabilitation of the ecosystems of forests and meadows (required investment: \$7,500,000), and the rehabilitation of historic structures (required investment: \$12,065,000) (Bransford et al., 2006, 32-33).

Only parks with the most persuasive proposals and dire needs receive funding, however, since money is limited (Dept. of the Interior, 2011). Factors such as a Superintendent's ability to solicit money, Senators' and Congressmen's pull in government, and the public support of projects can also influence the amount of money a park is granted each year. Yellowstone, a more popular and well-known national park, has received appropriated non-base funds for such things as health inspections of

concessions operations, the printing of trail guides, the removal of underground storage tanks, and the replacement of trailers for employee housing (Yellowstone Media Group, Inc., 2010). Appropriated non-base funding is controversial because of its competitive awarding policy.

## **II. Private verse Public Ownership**

Due to limited funding, it is also important to examine the role of government as the primary source of funds for the National Park Service. While many people would consider setting funds aside for the National Park Service to be a natural government responsibility since parks were created for public use, others argue that tax dollars should not be spent for this purpose.

One of the most notorious critics of government spending for national parks was Milton Friedman in his work *Capitalism and Freedom*. Friedman argues that in comparison to city parks, national parks are much better suited to charge visitors' entrance fees. People who benefit from city parks are frequently hard to identify since they do not all intentionally set time aside to spend in parks. Since some people enjoy a city park by simply walking past it or looking at it through a building window, it would be difficult to charge a usage fee to passing pedestrians and people gazing from overlooking windows. National parks and historic sites contrast with city parks because the majority of visitors to national park units intentionally plan to visit a park for a considerable amount of time. Friedman argues that it would be "perfectly feasible to set up toll gates and collect admission charges" in national parks (Friedman, 1962, 31). His argument makes readers question such issues as why people who do not use national

parks should have to pay for them, particularly since the main users of national parks are those who can afford travel to the sites. He goes on to acknowledge that even though admission is now collected at most parks the charges do not cover the parks' full expenses. Instead of spending government money on national park units, Friedman believes that private enterprises should be responsible for providing parks to meet public incentive and demand (Friedman, 1962, 31).

Opponents to Friedman's argument contend that the government is a steward for future generations, and should be responsible for funding national parks because of the positive externalities they provide for present and future generations. To start, national parks have a nonuse value, which is the value citizens derive from the knowledge that the country has national parks even if they do not personally visit the parks themselves. National park units create a sense of national identity and pride among citizens, which is a positive externality that Friedman does not take into account in his argument. If national park units were provided by the private sector, some visitors may end up being excluded from visiting. If admission prices were considerably increased, for example, low-income members of the population may be driven away. If an extremely wealthy buyer decided to buy a park unit for his or her private consumption, such as the Grand Canyon, the public would be denied visitation rights. By having the government fund national park units, measures are taken to properly conserve resources and lands to ensure that national park units will continue to be available to all members of society at an affordable price.

Park visitation and national park resources create positive externalities as well. When people visit national park units, they learn such things as how to take care of the

environment, wildlife facts, and historical information. This education benefits visitors, and can be utilized in other areas of economic life and society as a whole. Unimpaired natural resources and wildlife in national parks also generate positive externalities in the science and public field. National park units frequently are places where a variety of research can take place, which leads to developments that benefit humankind. When considering the public verse privatization debate, public funding for national park units by the government is justified when realizing the overall benefits national park units provide to all members of society, as well as the positive externalities they create.

## CONCLUSIONS

The presence of conflict between the public and preservation interest spheres mentioned throughout this thesis is a reality that National Park Service management and staff, as well as the visiting public, must deal with when handling present matters and future plans concerning the NPS. Preservation is critical for the conservation of the natural beauty and precious wildlife that exists in NPS lands. A decrease in preservation efforts could not only irreparably harm natural resources and land, but also could prevent the public from using these lands in the future if they are no longer there to be enjoyed. Public recreational usage of NPS units is fundamental to upholding the Park Service's objectives, ensuring the parks' existence, and the economy. While this thesis makes it clear that public and preservation interests frequently conflict, as well as compete for attention and funds, it is critical to understand that preservation and recreational public use do not have to always be treated as completely separate entities. Development, recreational use, and conservation are dependent on Congressional sanctions, NPS management, public desires, and the appropriation of funds, which should focus on finding balance and cooperation between these two significant spheres of interest.

As established by the Vail Agenda of 1993, "The National Park Service is a large, complex, and geographically dispersed agency with strong traditions in both its politics and its management styles. It will not be transformed quickly or easily" (Sellars, 2009, 267). In order to formulate how best to improve the National Park Service, it is critical to understand the people who help influence and shape the future state of NPS lands over time. Public support and interest in national park units is evident from the increasing number of visits to NPS units each year, as well as by the repeated ranking of the Park

Service as one of the most popular and respected federal bureaus in the nation (Sellars, 2009, 285). The public takes pride in setting aside recreationally open space for millions of Americans, as well as in preserving the rich history and beautiful landscapes of their nation (Sellars, 2009, 285). As a result, the public frequently expresses their desires for the future of the NPS to the Senators and Congressmen they elect to office. It is through these representatives and the persistent lobbying by the NPS, various allies, charitable trusts, and organizations that favorable attention and increased funds are allotted to the National Park Service.

Since only a certain amount of funds can be set aside for the National Park Service, I put forward some potential strategies for increasing non-appropriated funding. To begin, national park units should work on building and strengthening partnerships. By improving cooperation with universities, national parks could benefit from increased scientific research and efforts, as well as assistance in how better to understand visitation trends. By working with the managers of neighboring public and private lands, national parks could develop a strategy that would help preserve the unimpaired environment of parks. Lastly, by strengthening relationships with local non-profit Friends groups that work on behalf of particular parks, national parks would be able to benefit from increased visitors, more volunteers, additional financial support, augmented publicity, and a solid advocacy group to act on behalf of parks when issues arise.

Volunteers are another way to make up for inadequate funding in parks. National park units should work on increasing volunteer efforts by designating a member of the staff to organize, assist, and support students and people interested in helping the park. Optimally, parks will be able to hire a part-time or full-time volunteer coordinator. There

are many community groups in areas surrounding national parks that would like to help with the conservation and maintenance of national park units, but are unsure where to begin. By engaging constituent groups in volunteer activities, such as hut repairs and creek cleanup at Valley Forge National Historical Park, parks are able to profit from free labor and forge personal rewarding connections with visitors. In Valley Forge National Historical Park, for example, the park was able to achieve a net benefit of \$253,000 with 848 volunteers and 17,912 volunteer hours in 2004 with only a part-time volunteer coordinator ((Bransford et al., 2006, 37).

Parks that desire more funding should also focus on developing methods to generate increased revenue. By augmenting the number of donation boxes in the park, as well as improving these boxes' visibility, parks could enhance their chance of receiving more small donations from visitors. Through special events, national parks could increase active engagement of park visitors and community members in the park, as well as raise money through business sponsorship of the events. Many parks also have opportunities to provide additional retail and concession services to visitors. Visitor surveys in some park units, for example, show requests for improved food options in the form of a restaurant, more vending options, or even stands. Parks could offer recreational rentals to the public, such as canoes or bikes, as well as offer audio guides for a fee. Lastly, parks could work on expanding the selection of items that are available for sale in stores, which are run by the Park Service or by cooperating associations that give the park a percentage of all revenues earned.

A more controversial way to increase private sponsors and investments would be to reverse the national policy of refusing to recognize donors by plaques, monuments, or



naming in national parks. While I understand that this policy was set up to prevent parks from becoming too commercialized or from bearing names of donors that have nothing to do with the park, I believe that this policy could be modified to accommodate some donors' desires. While I think it is inappropriate for donors to be recognized in a way that would detract from a park's ambience, I feel that the benefit of plaques or small monuments to many visitors' experiences would be much larger than the harm. Soliciting anonymous donors to invest large amounts of money into priority projects is a difficult endeavor. Even though there are some people who are willing to donate without any recognition, many people prefer to make large contributions to organizations and projects that they feel appreciate their donations and recognize their gifts. By enacting a policy of recognizing donors in the form of plaques or small monuments, donations could be increased for larger investment priorities in parks.

A less controversial option to raise funds for national parks would be to explore opportunities to lease park structures. Some parks, such as Valley Forge National Historical Park, offer long-term leasing opportunities of structures to raise funds to rehabilitate and to refurbish structures in parks, as well as ensure the maintenance of leased buildings in a cost effective method. In Valley Forge National Historical Park, for example, a barn and early 19<sup>th</sup> century house on a southern corner of the park were renovated and leased to the Montessori Children's House to be used as a school. The national park benefited from the \$3.8 million spent to renovate the property, and children at the school benefited from the unique hands-on lessons they learned from attending a school located in the midst of distinctive science, environmental, and educational opportunities (Benson, 2010). Such leasing opportunities are a perfect example of

strategies the National Park Service can pursue to increase funding for national parks, as well as benefit both public and conservation interests.

In addition to increasing funding for national parks that can be used for preservation and public purposes, additional strategies can be established to help bridge public and preservation interests. Increasing public education is a way to enhance visitors' experiences in parks, as well as leave the public with a deeper understanding of the "complexities of natural history" (Sellars, 2009, 287). Many visitors to national parks only view the parks at face value. Their observations of beautiful scenery lead them to believe parks are biologically healthy, when in reality many segments are under great stress (Sellars, 2009, 287). Through increased public education, visitors enhance their environmental awareness, which helps them appreciate the parks they visit and interact with the land in a more conservation-friendly way. When visiting the Virgin Islands National Park, for example, visitors learn the importance of not stepping on coral reefs to prevent themselves from getting hurt and to ensure the survival of these living organisms.

Establishing services and programs to inventory parks and natural resources, as well as monitor conditions over time, help NPS management and staff determine how to compromise between public and private sectors as well. In 1986, for example, there was a discovery of lower regions of Lechugilla Cave in Carlsbad Cavern National Park. Through an inventory service of this region, "a variety of rare geological, paleontological, and biological features" were found (Sellars, 2009, 273). In addition, "more than 80 miles of passages were discovered, making it the 7<sup>th</sup> longest known cave in the world and the deepest limestone cave in the country" (Sellars, 2009, 273). As a result, Carlsbad Cavern decided to dedicate these unhampered regions to scientific study

instead of permitting intensive public use of the area. A compromise was reached that permitted the public to utilize and to appreciate vast other areas of the cave, while preserving some regions for pure conservation and scientific purposes.

If the National Park Service is to ensure the conservation of its lands for future generations, as well as the right of the public to freely enjoy and explore these units, it must fully understand the interests of both sectors. To best shoulder this complex responsibility, the National Park Service has to maximize its appropriated funds to the best of its ability, increase funding through additional methods, bridge public and preservation concerns, increase cooperation, and develop strategies for how best to handle conflicting interests. The National Park Service's ability to attune its management and balance between preservation and public interests is essential to the well-being of NPS lands of today and the future.

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ACADEMIC VITA of Jessica Greer Griffith

Jessica Greer Griffith  
1640 Stocton Road  
Meadowbrook, PA 19046  
[JMG5315@psu.edu](mailto:JMG5315@psu.edu)  
[JG12G8@gmail.com](mailto:JG12G8@gmail.com)

**Education:**

The Pennsylvania State University  
Schreyers Honors College  
Bachelor of Science Degree in Economics  
Bachelor of Arts Degree in History  
Bachelor of Arts Degree in International Studies  
Minor in Spanish  
Minor in International Business  
Honors in Economics

Thesis Title: *Preservation and the Public: An Exploratory Examination of the National Park System*

Thesis Supervisor: David Shapiro

Honors Adviser: David Shapiro

**Professional Experience:**

Date: January 2008 - Present

Title: Fitness Instructor

Institution: Penn State Strength and Fitness

Date: Summer 2010

Title: Management Assistant and Park Guide

Institution: Valley Forge National Historical Park

Date: Summer 2009

Title: Intern for Senator Arlen Specter

Institution: The United States Senate

Date: Summer 2008

Title: Volunteer Intern

Institution: Montgomery County Republican Headquarters

**Awards and Honors:**

Dean's List, All Semesters

The Golden Key International Honour Society  
Phi Alpha Theta History Honor Society  
The United States Congressional Award, Gold Medal  
The Presidential Gold Level Volunteer Service Award

**International Experience:**

Barcelona, Spain. The Liberal Arts and Business Program. The Institute for the International Education of Students, Spring 2010.

**Language Proficiencies:**

Spanish (proficient)