

LAYING TRAIL DOWN TO PALMERTOWN

Using the Travel Cost Method and Contingent Value Method to Evaluate the Value of a Palmertown Range Recreational Trail in Saratoga County, NY

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Abstract

In tandem with Saratoga PLAN and the Open Space Institute, an investigation was conducted to determine the feasibility of creating the Palmertown Trail, a trail that would connect three outdoor recreation locations in Saratoga County: Moreau Lake State Park, Daniels Road State Forest, and the Saratoga Greenbelt Trail. Semi-structured interviews were completed with 10 local businesses in four out of five of the stakeholder towns (Corinth, Moreau, Saratoga Springs, and Wilton) to find the public's current use of the trails, and reasons for valuing these areas. We conducted an online survey, receiving 404 responses, that used Travel Cost Method and Contingent Value Method to find the public's current use of the three outdoor recreation locations, opinions regarding hiking trails versus multi-use trails, and willingness to pay for outdoor recreation locations. Semi-structured interviews showed an increase in business revenue was a driving desire to establish the Palmertown Trail, followed by health improvements, family/town community, commuting, and conservation. The online survey found that cumulatively Saratoga County residents equally value multi-use and hiking trails. They would be willing to pay between \$18.83 to \$19.85 annually for a trail that connects Saratoga Greenbelt Trail to Moreau Lake State Park. Based on our Travel Cost Method results of existing trail networks, we expect the annual value of the Palmertown Trail to be between \$6.86 million and \$53.6 million.

Introduction

Over 142 million Americans enjoy outdoor recreation each year through mountain biking, hiking, fishing, and skiing, surfing, etc. (Outdoor Industry Association, 2017). Public access to trails and outdoor amenities is only possible because of rigorous conservation efforts by grassroots organizations, nonprofit organizations, community groups, city, county, state, and federal agencies, private landowners, and national/state legislation. Of the total 2.43 billion acres of U.S. land, "the Federal Government holds in trust about 640 million acres of land", roughly 30% of total land (Cordell, Betz & Zarnoch, 2012, p. 10). The Adirondack Park in New York State, for example, is the largest park in the lower 48 states. However, the quantity of wild areas in the U.S. has been declining for the past 20 years. Each year, "the United States loses about 2 million acres of forest, farm, and open space" (Cordell, Betz & Zarnoch, 2012, p. 10). This trend of lost public and private land and water is expected to continue downward through 2060. It is

imperative that the U.S. continues to protect and conserve natural areas and public lands for biodiversity and community access.

Wildlands, public lands, and open space protection measures are valuable for environmental protection as well as the economy. In 2017 the outdoor recreation industry generated \$887 billion in consumer spending, \$65.3 billion in federal tax revenue, and \$56.2 billion in state and local tax revenue (Outdoor Industry Association, 2017). Hikers, skiers, bikers, and kayakers need businesses for restocking their food supplies, buying gasoline, sleeping, or renting equipment.

This mixed-methods research worked to better understand the extent to which the proposed Palmertown Range Trail offers an opportunity to raise local tax and business revenues, protect natural resources, while giving Saratoga County residents and visitors access to beautiful sights, similar to those in the Adirondack Mountains, but much closer. Halfway up the spine of New York State sits Saratoga County, home to 230,163 residents, and one of the fastest-growing counties in New York (U.S. Census Bureau, 2018). For many, the move to Saratoga County is connected with the desire to be near or have easy access to outdoor recreation spaces. In the past decade, there has been an emphasis on outdoor accessibility, inspiring many to reevaluate their relationships with nature. Some have chosen to engage more with their environments while others have completely moved out of cities and into areas with green space (Platts, 2018). With the Adirondack Mountains to the north, the Catskill Mountains to the south, and the Green Mountains to the east, Saratoga County is a haven for outdoor enthusiasts. Locals and newcomers alike are noted to have “existing support for conservation and recreation” within their natural surroundings (Saratoga PLAN, 2018).

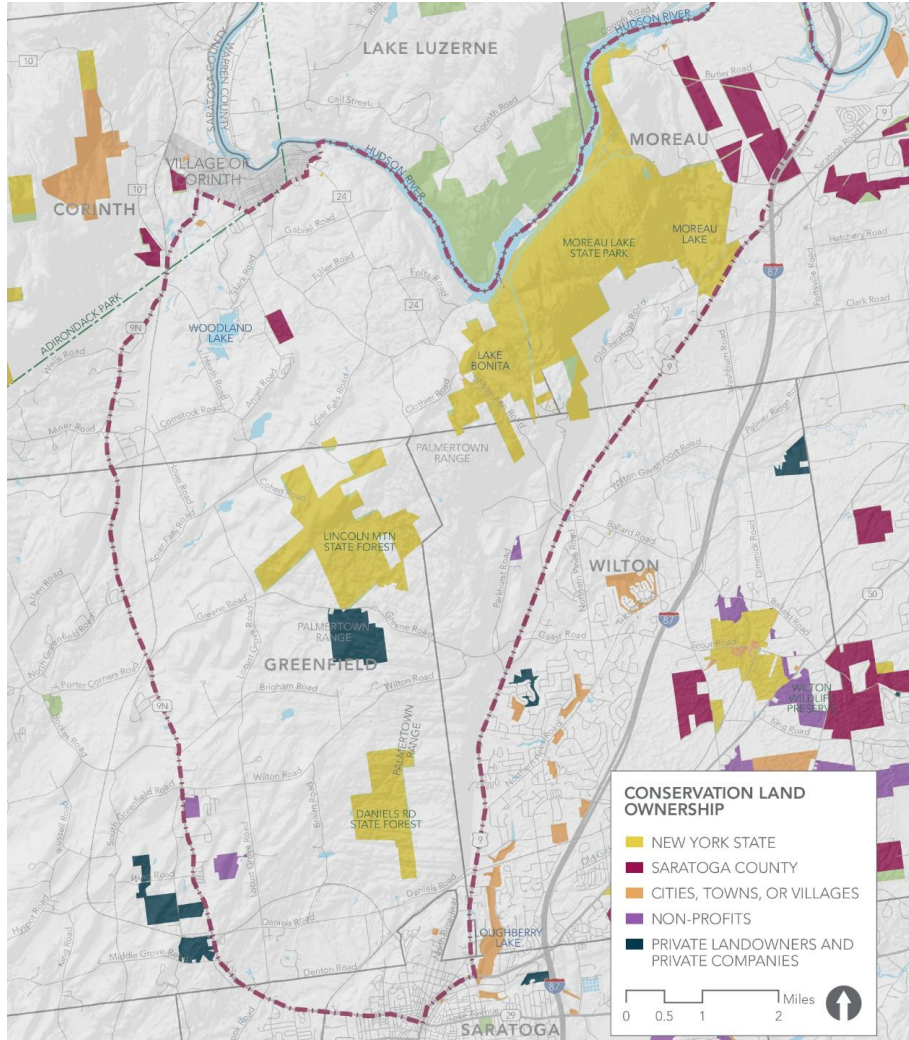
Outdoor Recreation in Saratoga County

Despite this ideal location, many Saratoga County residents do not have the time or money to give to a multi-hour trek into The Adirondack Park. The majority of their outdoor experiences take place in local areas that have less transportation or financial constraints. For these reasons, Saratoga County residents flock to two nearby state parks-- Moreau Lake State Park and Saratoga Spa State Park. These areas are less than an hour away from all Saratoga County residents and provide affordable or free accessibility to outdoor spaces. But Saratoga County has the opportunity to create a trail that connects and enhances these existing environmental amenities by developing a trail in the densely forested Palmertown Range. This is a 7,000-acre piece of land nestled between the well-established Moreau Lake State Park and Saratoga Spa State Park. By connecting the three areas, Saratoga County would be providing a trail for county residents and tourists alike. The Palmertown Range contains “extensive, unfragmented, diverse forests and wetlands” providing a remarkably “ecologically intact landscape” (Saratoga PLAN, 2018, p. 3).

The ownership of the Palmertown Range is divided among the New York State Department of Environmental Conservation (DEC), the New York State Department of Parks and Recreation (Parks), and private landowners. DEC owns Lincoln Mountain State Forest, a 982-acre parcel of conservation land that is mainly used for logging and outdoor recreation, which

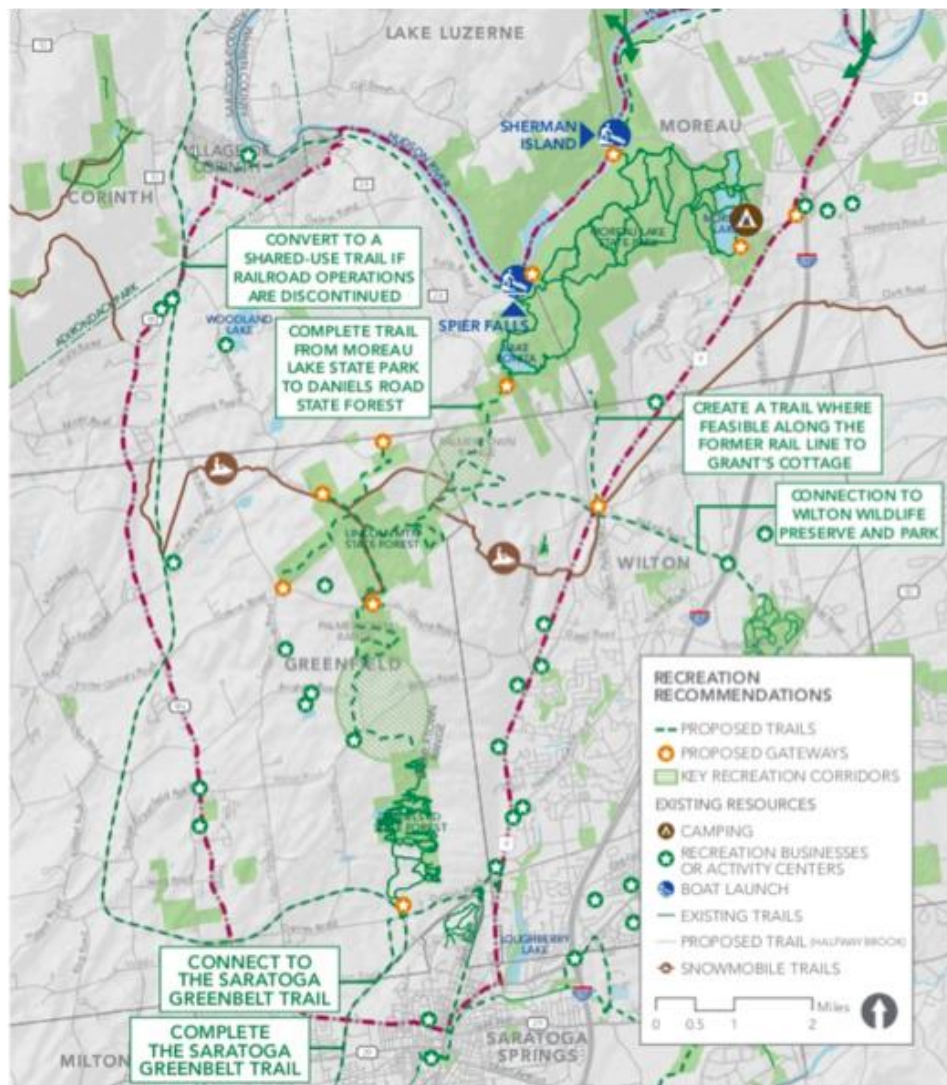
has neither designated recreation nor logging infrastructure (Department of Environmental Conservation, 2019). The northern tip of the Palmertown Range, Moreau Lake State Park, and the southern tip, Saratoga Spa State Park, are both owned and managed by Parks (Figure 1).

Figure 1. Map of the Palmertown Range and Land Ownership (Southern Palmertown Conservation & Recreation Strategy, 2018).



The creation of a trail system between Moreau Lake State Park and Saratoga Spa State Park has the potential to increase county and private business revenues through tourism, enhance access to environmental amenities for users, provide mental and physical health amenities for users, and help to conserve and/or protect an intact and ecologically significant area of undeveloped forest. Developing user trails through the Palmertown Range not only has the potential to improve accessibility to nature, but it also can be used as a way to prevent habitat fragmentation and protect vulnerable ecosystems and species from future development (Figure 2).

Figure 2. Map of the Palmertown Area and Current and Proposed Trails (Saratoga PLAN, 2018)



The overarching research questions guiding our effort included:

1. To what extent will the creation of a recreational trail benefit the local economy, public health, and conserve/protect natural resources?
2. Would the construction of a recreational Palmertown Trail promote enhanced opportunities for outdoor recreation in Saratoga County?
3. How can the Travel Cost Method and Contingent Value Method help us evaluate the value of a trail in Saratoga County?

Stakeholders

Saratoga Preservation Land and Nature (Saratoga PLAN) and the Open Space Institute (OSI) have been working to connect these three pieces of land through the development of one 13-mile trail. This trail, referred to as the Palmertown Trail, would tie together the town of

Wilton, Corinth, Moreau, Greenfield, and Saratoga Springs. The Saratoga County community has been discussing the development of this proposed trail for years, but in 2018, formal trail plans were proposed via the “Southern Palmertown Conservation & Recreation Strategy.” Even with the published strategy, there are still challenges preventing the construction of the trail, such as communication amongst the diversity of public and private stakeholders, funding, land acquisition, and staffing and maintenance resources/logistics.

Connecting Saratoga Spa State Park to downtown Saratoga Springs is the existing 24-mile long Saratoga Greenbelt Trail (Alta Planning and Design, 2014). This multi-use trail allows for various year-round activities such as walking, biking, running, and dog walking. The trail incorporates several existing corridors. For example, a section of this trail called Railroad Run was constructed by 2013 on an old rail line in downtown Saratoga Springs. In a broader context, New York State has been investing in the creation of more multi-use trails. In 2016 Governor Cuomo announced a \$200 million budget to create the Empire State Trail, a 750-mile route stretching from New York City to Canada, and east to Buffalo. The Empire State Trail does not intersect with the Palmertown Range, but the social and economic objectives of the Empire State Trail are parallel with that of the Palmertown Trail. The Empire State Trail system also provides insight into the challenges and benefits of building physical connections through town and political boundaries. For example, New York State faced challenges in constructing connector pathways between existing trail systems. The state employed five different state organizations: NYS Canals Corporation, NYC Department of Transportation, The Metropolitan Transportation Authority, The Hudson River Valley Greenway, and NYS Parks to oversee over 60 construction projects and ensure that all existing gaps are safely closed. This trail network will link New York communities through scenic and cultural history, while promoting healthy lifestyles and safe engagement in outdoor recreational activities.

Our research builds upon Saratoga PLAN’s Southern Palmertown Strategy and the Empire State Trail Design Guide, to better understand how the development of a trail from Moreau Lake State Park to the Saratoga Greenbelt Trail can provide a multiplicity of outcomes for visitors, residents, businesses, and the County. Through an online survey (Qualtrics), this research quantified the current use and demand for a trail along the proposed Palmertown Trail, and how much – in U.S dollars – the residents of Saratoga County value the current trail resources, and how much they would be willing to pay for the development of the proposed Palmertown Trail. In addition to studying how much the community would value a trail, this study also investigates if the community sees a difference in value for a multi-use paved or crushed stone trail and a single-track dirt trail. We took an economic approach to assessing the value of the trail by using Contingent Valuation Method (CVM) and Travel Cost Method (TCM) to gain a dollar value for how much the community would be willing to pay annually for the trail and how much they value similar existing trail systems. This study also employed semi-structured interviews to assess the value that the community and businesses see in developing a connective trail. A secondary purpose of this research was to inform local stakeholders on the

current barriers and demand for outdoor recreation in Saratoga County, to help them develop effective plans to make trails in Saratoga County more accessible for all residents.

Literature Review

This research acknowledges that PLAN and the OSI are working to develop a Palmertown trail that connects five villages in Saratoga County. Outdoor spaces incorporating multi-use trails (such as the proposed Palmertown Trail) have proven to have benefits in other communities in the categories of enhanced physical and mental health, community bonding, environmental awareness, and increased revenue. The unknowns are how these benefits will transfer to this case study in Saratoga County. Additionally, the proposed Palmertown trail has been in the “development stages” for over a decade due to the unwillingness of landowners to sell their property (or provide public access) for the trail’s development. This study asks how a recreational trail will benefit the Saratoga County economy, public health, and conserve/protect natural resources while also incorporating TCM and CVM to understand the value of this area to the community.

Physical Health

Outdoor recreation and even just being outside, has positive effects on physical and mental health. US Doctors are at times prescribing nature walks instead of medication to treat a variety of illnesses, and “Ecotherapy” has risen as a common treatment, with the slogan being “parks over pills” (NBC News, 2018). Walks in outdoor settings have been reported to improve blood pressure issues, reduce the risk of heart disease, minimize the potential for stroke, assist in weight control, and help manage the symptoms of diabetes (Dockrill, 2018). For many, an order to walk outside is more effective, enjoyable, and affordable than expensive chemical medications with the potential for side effects. The prevalence of doctors and patients choosing eco-therapy is increasing, and even for those who take a medication, exposure to outdoor recreation has caused some participants to cut their dosages in half (Godbey, 2009). By simply incorporating more exercise in green spaces into daily routines, patients can reduce certain symptoms and prevent future afflictions.

When looking at physical inactivity in regard to obesity and overweight adolescents and young adults, it was found that the risk of diabetes and heart disease was lowered with exercise, but more significantly when this exercise incorporated outdoor spaces (Rosenberger Bergerson & Kline, 2009). Multi-use trails offer macro-level relationships to provide supply and demand for outdoor activity, especially for at-risk communities with poor access to recreation. There is a negative association between biking and overweight and obese proportions, so better access to these trails could help decrease the growing overweight and obesity trends (Rosenberger et al., 2009). Further, public parks and access to green spaces reduce exposure to indoor air pollution and the sedentary appeal of television (Godbey, 2009). Because of these benefits, it is urged that infrastructure be built to provide access to non-motorized trail corridors and bikeways

(Rosenberger et al., 2009). The development of the proposed Palmertown Trail offers the potential for visitors and Saratoga County residents the opportunity to reap these benefits.

Mental Health

In recent years, mental health and well-being concerns have risen, specifically in relation to children spending more time indoors watching screens and scrolling through social media. Children, young adults, and adults may not be spending their time effectively; instead of actively utilizing free time through hobbies and social interactions, they possibly focus on more passive, sedentary activities (Ozen, 2015). Outdoor programs, such as Outward Bound, though, gives young people the tools to disconnect from such trends, yet these programs are at times expensive and inaccessible to the general population. “Green exercise” describes activities based in natural landscapes that improve one’s mood, such as fishing or taking a nature walk (Pretty et al., 2006), and these programs are now being integrated into educational institutions through after-school activities. These programs have shown to reduce social anxiety, increase feelings of self-esteem and efficacy, bolster a sense of belonging, and lower depression. For example, after a nine-day hike through the Alps, a group of 14-year olds reported significant increases in life satisfaction and mindfulness (Multz & Muller, 2016). Another qualitative study in Turkey observed college students’ involvement in outdoor climbing. Students that felt loneliness and boredom beforehand reported decreased social anxiety scores and increased motivation for active outdoor activities like climbing (Ozen, 2015).

The proposed Palmertown Trail has the potential to increase County schools’ access to “green exercise” and active outdoor activities, rather than passive activities indoors. Local school groups visiting the trail would hypothetically have a shorter commute time and therefore maximize their time spent outdoors exercising.

Increased Revenue for Local Business

The desire to engage in outdoor recreation has been increasing steadily for more than two decades. From 2000 to 2007 there was a significant increase in interest interacting in green spaces. In the United States, days spent walking for pleasure increased by 14%, attending family gatherings in outdoor spaces increased by 14%, visiting beaches grew 16%, and visiting agricultural locations like farms grew 100% (Cordell, 2008). In terms of outdoor adventure, citizens’ engagement with backpacking, mountain biking, and trail running have increased from 2000-2010, and again in 2010-2020 (Winter et al., 2010).

Outdoor recreation is growing rapidly across the nation and providing new opportunities for revenue. The impact of outdoor recreation on the national economy since 2000 was so profound that the United States published a report to analyze the revenue, titled *Outdoor Recreation Satellite Account*. The 2017 report found that \$427.2 billion was spent on outdoor recreation, making outdoor recreation 2.2% of the gross domestic product in 2017. The real GDP grew 2.9%, which is faster than the 2.4% increase of the overall economy. All 50 states and the District of Columbia were represented in this analysis, ranging from 5.4% to 1.2%

growth. Boating/fishing ranked as the activity with the most participants, followed by RVing, motorcycling/ATVing, hunting/shooting/trapping, equestrian, and snow activities (Bureau of Economic Analysis, 2017).

Following the Outdoor Recreation Satellite Account of 2017, the *Outdoor Participation Report* was published by the Outdoor Industry Association. The Outdoor Industry Association focuses on who is using outdoor spaces and categorizes users based on age, gender, race, and motivation of the person's outdoor recreation participation. They reported that 2018 brought 1.7 million additional participants for an 8.3% increase in people engaging in outdoor adventure. Unlike other analyses, there is a specific investigation into racial diversity in the outdoors. Unfortunately, there was only a 1% growth in Hispanic engagement in outdoor activities and a 0.9% growth in Asian engagement. Also, running was identified as the most popular activity for all ethnicities, except for White. The consumer-base of outdoor recreation is growing, but only definitively diversifying among Hispanic Asian, and White ethnicities.

Community Bonding

Entering any new social environment can be stressful, especially early in life. High school and college students more often report feeling social anxiety than in previous decades. Outdoor engagement has the potential to bond these new communities. More colleges are incorporating outdoor programs into their orientation programs; in 2010, over 202 institutions included an outdoor orientation program (Austin et. al, 2010). These outdoor programs give students access to strong social networks and support. For example, after sophomores and junior undergraduates participated in a 13-day outdoor education course in small groups of five to seven, each participant reported feeling a stronger sense of membership, integration, and emotional connectedness (Breunig, et. al, 2010). A sense of community can be defined as “the ‘feeling an individual has about belonging to a group and involves the strength of the attachment people feel for their communities or group’”. This sense of community can derive from a positive relationship between “sense of community and group members’ involvement in basic living or survival matters” (Breunig, et. al, 2010, p. XX). This heightened sense of community can increase personal development and classroom performance and decrease student burnout (Austin et al, 2010). Close proximity to a rich, natural space like the Palmertown Range could improve student performance in Saratoga County.

Environmental Awareness

We tend to see environmental catastrophes on media outlets, but rarely the hopeful prospects of environmental restoration or solutions. The biophilia hypothesis explains that humans have a strong desire to relate to other living things, as seen through the late development of cities and delayed migration into these cities. People continue to find themselves attached to Nature in some form: outdoor recreation, education, vacationing (Zelenski, et al, 2009). Those with positive interactions with natural spaces are also more likely to engage in positive ecological behavior. Studies have found that those who feel a deeper

connection to a piece of land are more likely to argue for better environmental management practices. This connection can come from outdoor recreation and educational activities, for example (Eisenhauer, et al., 2000). Therefore, having access to green spaces and interacting with these spaces through education or physical activity can greatly benefit efforts to protect the environment.

Travel Cost Method

Travel Cost Method (TCM) and Contingent Valuation Method (CVM) are two economic strategies used to quantify the monetary value of natural and public resources. Travel Cost Method (TCM) is used to show how much an individual is willing to pay for an amenity or good through travel cost: how much someone spends to use this good and arrive at this good. TCM includes: who is interested, how far they travel, how much money they spend reaching the good, income, and, for example, time budget. The Portland Forest Park Conservancy used the TCM in a 2015 study evaluating the recreational value of Portland's State Forest. Using TCM they estimate that the per-trip value is \$240 and the total annual value of recreational visits to Portland's Forest Park is \$31 million (Bluffstone, 2015). As such, using TCM can help Saratoga County, Saratoga PLAN, and the Open Space Institute similarly evaluate the potential user base for the Palmertown Range, pricing on recreational activities, and revenue generation.

Multi-use trails are a form of a public good, they are nonrival and nonexcludable, and are not exchanged in a market. A monetary value can be attributed to a non-marketable good, like a multi-use trail, through either a stated preference method or a revealed preference method. Stated preference methods directly ask individuals to place a dollar value on a good, while revealed preference methods define the value of a good by assessing the amount of money individuals spend to utilize the public good (McConnell & Walls, 2005). The most commonly used form of stated preference method is contingent valuation (CVM), where individuals report their willingness to pay (WTP) for a good or service. We used both the CVM and TCM, the latter of which is a revealed preference method used to calculate how much an individual pays to arrive at a recreation amenity or site, and the monetary value of the goods and services they purchase during this activity (gasoline, hospitality, food/beverages, equipment, parking, entrance fees to NY State Parks, etc.).

Contingent Valuation Method

CVM quantifies the monetary value society places on the passive use of a good through estimating individuals' maximum willingness to pay (WTP) for the amenity. WTP is calculated through survey responses. The robustness of WTP models is controversial because the responses are often based on hypothetical scenarios and responses are not always fully capable of predicting how they would actually behave in these scenarios. Since CVM is the only form of evaluating WTP, it is consistently used to assess the economic benefits of environmental services. For example, it has been used to measure the non-market recreational benefits that improved reef health has on snorkeling and fishing uses for the marine reserves (Nelsen, 2012).

CVM is not capable of capturing an economic value on public goods, it does, however, act as a strong monetary indication of stated interest in paying for and using the Palmertown Range.

Methods

Population and Setting

Saratoga County consists of 10 towns and has an estimated population of 230,163 with a median household income of \$77,548 (U.S Census Bureau, 2018). It is also one of the fastest-growing counties in the northeastern United States and the home of the nation's first horse racing track. The Saratoga County trail system is vast, containing over 1,000 miles of trails. These trails stretch through Moreau Lake State Park, Daniels Road Forest, the Saratoga Greenbelt Trail, and Lincoln Mountain State Forest. Popular trails include Railroad Run, Moreau Lake Overlook via Red Oak Ridge Trail, and Spring Run Trail (Saratoga, 2016). These trails are popular for residents and visitors year-round, allowing the opportunity for snowshoeing, kayaking, cross-country skiing, running, mountain biking, birdwatching, and rock climbing.

This research investigated how community members already engage with the outdoor amenities in Saratoga County, where, how, and why. Additionally, this research worked to better understand the public's preferences in relation to recreational trails in the area. As such the research questions guiding this study included:

1. To what extent will the creation of a new recreational trail benefit the local economy, public health, and conserve/protect natural resources?
2. Would the construction of the Palmertown Trail promote outdoor recreation opportunities in Saratoga County?
3. How can TCM and CVM help evaluate the value of a recreational trail in Saratoga County?

We used three different methods to assess how the community values the development of a connecting trail like the Palmertown Trail, and if they see a difference in value for a paved/crushed stone multi-use trail versus a single-track dirt hiking/mountain biking trail. Our research is triangulated into three different methods: 1) Stated Preference Method through CVM via Qualtrics online survey software; 2) Revealed Preference Method: TCM via Qualtrics online survey software; 3) Qualitative Data Collection: Semi-Structured Interviews (Creswell, 1998). These methods allow us to estimate how much, in United States dollars, the Saratoga County community values the potential Palmertown Trail. Interviews were used to add more holistic data to determine what benefits the community would value most. We triangulated our sources via data collection with the general public in Saratoga County, business owners and sales associates, elected officials, and non-profit organizations.

Semi-Structured Interviews

Semi-structured interviews were conducted with 10 community businesses in the stakeholder towns in Saratoga County: 4 in Corinth, 2 in Moreau, 2 in Wilton, and 2 in Saratoga

Springs (Table 1). These respondents provided insights and background on the general understanding of outdoor recreation in the area. We selected the businesses to conduct our semi-structured interviews based on the relevance of each business to the outdoor recreation industry and/or the significance of the business in the community. Some of the businesses were gear shops for outdoor recreation sports that happen in the Palmertown Range, but most of the businesses were restaurants and shops that were recommended by community members. Frequently, when we were conducting the interviews the business owners would recommend other businesses to visit, or people would approach us asking to be interviewed (Snowball sampling) (Creswell, 2013). The semi-structured interviews ranged between 5 to 25 minutes in length and the data was collected from November 2019 through April 2020, with a digital recording device that was later transcribed into a document. Interview questions are located in the Appendix.

Table 1: Locations and businesses interviewed

Corinth	Moreau	Wilton	Saratoga
Biscuits Bakery	Fountain Square Outfitters	Winslow's Restaurant	Alpine Ski Shop
Mallery St. Marketplace	Rock Hill Bakehouse and Cafe	Izzy Bella's Foodz	Whole Harvest Company
Rocco's Pizzeria			
Bob's Bait Shop			

Contingent Valuation and Travel Cost Survey

CVM and TCM were determined by 404 online surveys distributed in person at community public events such as the Saratoga Farmers' Market, as well as through social media, local newspapers, and flyers in public locations throughout the five stakeholder towns. The questions are phrased in the survey using a double-bounded format, meaning that respondents are first asked to answer 'yes' or 'no' for being willing to pay a given annual price. If the respondent answers 'yes' they are then asked if they would be willing to pay a higher amount. First, respondents were asked if they would pay \$25 a year and if answered 'yes' the questions continued in increments of \$25. Respondents were asked to complete two series of WTP questions. The first series focused on multi-use paved/crushed gravel trail and the second series focused on a single-track hiking/biking trail. The survey instrument is located in the Appendix.

Online Survey Analysis

The survey assesses how much the community values current recreational areas based on their behavior and how much the community would be willing to pay for the construction of a

new multi-use trail and/or a new dirt hiking trail, the Palmertown Trail. In this report we first estimate the implicit monetary value for the current recreational areas based on community behaviors by calculating the money, directly and indirectly, spent on a trip using TCM. The following information collected in our survey was used to calculate the value of the current recreational areas:

- Frequency of visits
- Round trip distance
- Round trip time
- Time spend at visit
- Income
- Money spent during the trip

TCM uses this information to calculate the opportunity cost of visiting an area in combination with the direct costs of a visit. Opportunity cost is the value of the time that is spent during the trip; opportunity cost is based on the concept that time is limited so when spending time on one activity you are forgoing time you could be spending working or engaging in another activity. In this paper, we use an individual's hourly income to account for the value of their time. Direct costs are based on money that was actually spent on a visit; this includes money for gas, parking, food, ext.

Figures 3, 4, and 5 below show how respondents traveled to the trails, which was needed to evaluate time and money spent on these trips. Most travelers used cars, no matter their distance from the trails. However, those visiting Moreau Lake State Park lived further than those visiting Daniels Road State Forest or the Saratoga Greenbelt Trail. Also, those visiting the Saratoga Greenbelt Trail were more likely to walk to the trails than visitors to the other recreational spaces.

Figure 3. Travel Mode Used to arrive at Moreau Lake State Park from Home Residences (n = 328)

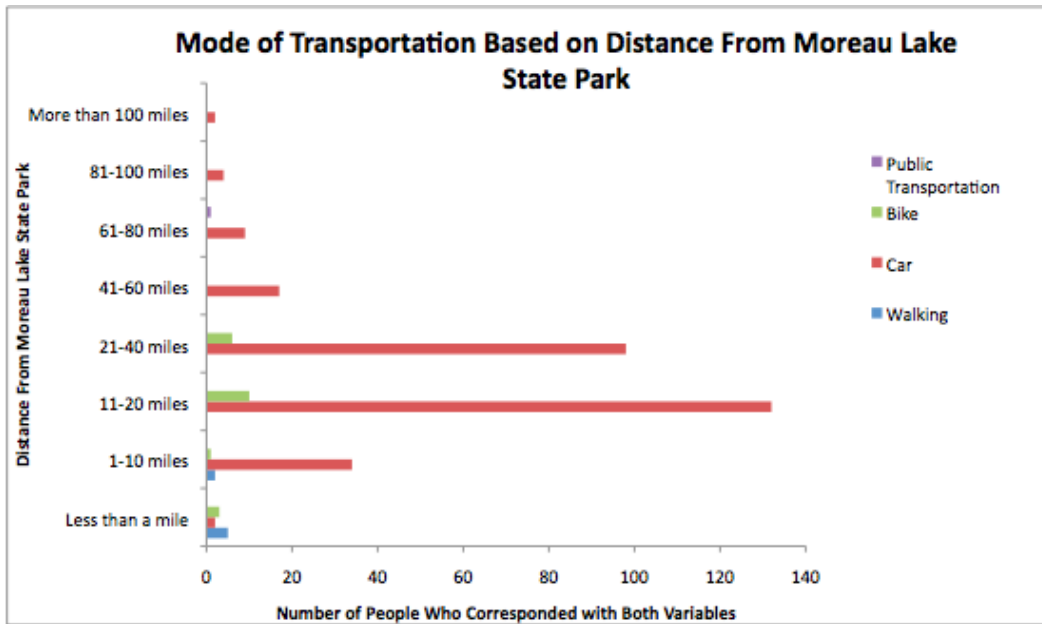


Figure 4. Travel Mode Used to Arrive at Daniels Road State Forest from home residence (n = 109)

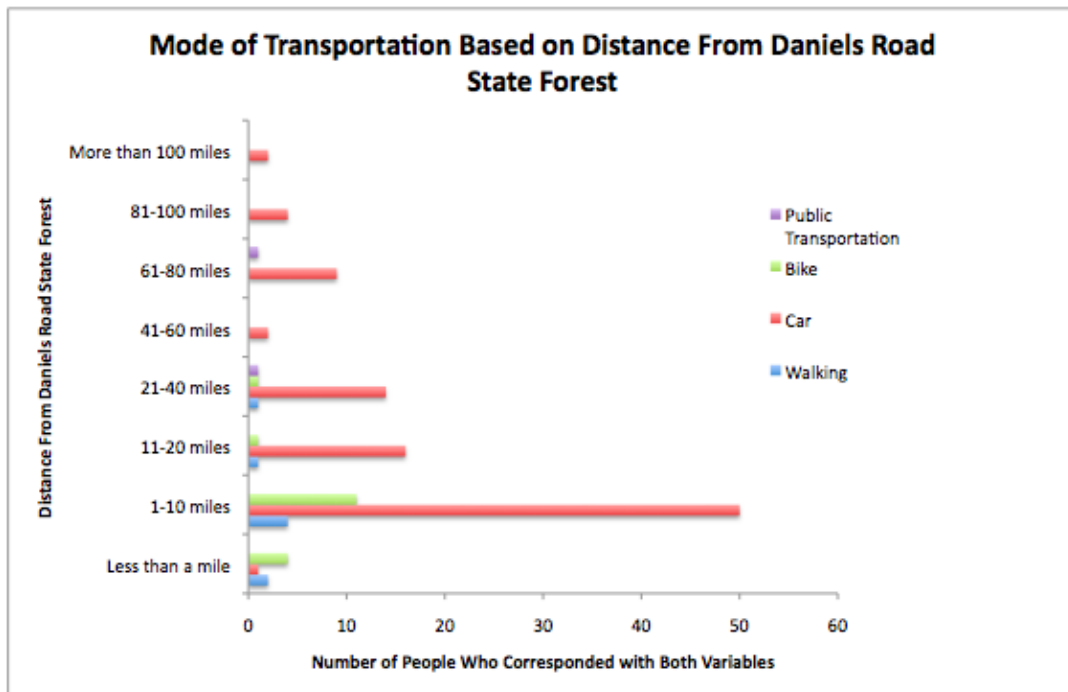
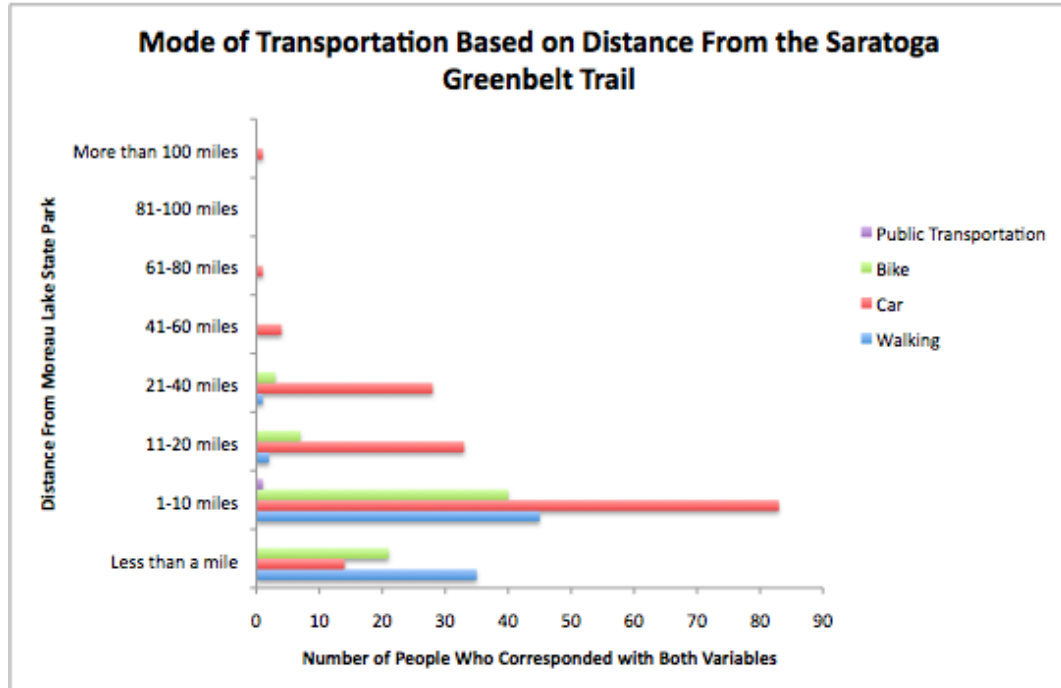


Figure 5. Travel Mode Used to arrive at the Saratoga Greenbelt Trail from Home Residences (n = 322)



The opportunity cost of a visit was calculated by using hourly earnings to represent the value of an hour of a user's time. We derived the average hourly earnings by calculating the average yearly income of our group, then we derived this by the 2018 annual average of hours worked per day reported by the Bureau of Labor Statistics. The average American in the labor force is estimated to work 3.23 hours per day; this amounts to an average of 1,178.96 hours worked per year (Bureau of Labor Statistics, 2019). We derived travel costs using the IRS Standard Mileage Reimbursement Rate as of 2018, which is \$0.58 cents per mile driven in a car (IRS, 2018).

The following equation is used to compute the per visit travel costs of the three recreational sites:

$$(1) (Round\ Trip\ Distance \times DCost) + (Round\ Trip\ Time \times ValueTime)$$

Where:

Round Trip Distance = The total reported miles traveled to the trail.

DCost = The per mile cost of travel.

Round Trip Time = The total reported round trip travel time.

The following equation is used to calculate the total annual cost:

$$(2) \quad Trips\ per\ year\ (Per\ Visit\ Travel\ Cost + MoneySpent + (VisitTime \times ValueTime))$$

After calculating the total per visit cost and total annual travel cost of the recreational

sites we conduct a t-test to assess if there is significant variation in the per visit and annual values that are derived through travel cost functions.

The second part of the survey directly asked respondents what they would be willing to pay for multi-use and hiking trails. The analysis of these WTP questions was conducted by taking the mean of the maximum values of respondents' answers of their WTP for the two types of trails. We excluded the values in the open response of WTP sections because many respondents did not respond, or took this space to write comments. A t-test was conducted between the derived means from WTP responses regarding the two different types of trails; this analysis was then used to see if respondents have a significant preference (multi-use vs hiking/biking trail). The results of the TCM results, that reveal the per trip cost, are multiplied by the annual visitation rates of each park to represent the total per trip cost for Moreau Lake State Park and the Saratoga Greenbelt Trail. Moreau Lake State Park was reported to have 400,000 annual visitors (Williams, 2018) and Rail Road Run, part of the Saratoga Greenbelt Trail, receives more than 127,000 visitors per year (Saratogian, 2019).

Results and Discussion

Semi-Structured Interview Analysis

When interviewed regarding the benefits of the Palmertown Trail, the respondents tended to repeat the same six strengths: business, family/town community, health, conservation, commuting, and history/education. Business was mentioned the most times, appearing on 7 counts within the 10 interviews. Family/town community, health, conservation, and commuting followed with 6 mentions. Last ranked was history/education, with 4 mentions (Table 2).

Increases in revenue for business like outdoor gear stores and restaurants proved to be an appealing asset for the Palmertown Trail, mainly because it would bring additional people to the Saratoga County region. Respondents from Corinth, Wilton, and Moreau explained that while visitors often travel to Saratoga Springs, they do not explore surrounding towns. The Palmertown Trail provides an avenue for tourism to bolster local businesses. An outdoor store in Saratoga Springs also mentioned there would be additional sales in equipment because of the potential visitors.

Community was another common theme, both throughout the entire town and within individual families. Respondents referenced the benefit of meeting new people in the area by establishing, using, and maintaining the trail. Additionally, respondents discussed Saratoga County as a place inhabited mostly by families, and the Palmertown Trail could provide a safe and beautiful destination and activity for locals. The trail also brings a new opportunity to interact with nature.

Health was a major motivator for wanting to establish the Palmertown Trail. Many respondents spoke to the correlation between human health and the outdoors, citing nature as a place to get physical exercise while also caring for mental health. One respondent also noted the current climate to improve individual health and the latest movement to explore the outdoors as an advantage to creating the trail at this time.

Commuting was a frequently discussed result that we had not hypothesized. Respondents

spoke highly of the current trails as transportation routes. Many younger respondents referred to the trails as safe and convenient methods of travel during their youth. Biking or walking these trails provides a safe connection from one location to another with no motorized vehicles necessary.

Conservation was mentioned as an equal number as community, health, and commuting but rarely was it formally addressed. One respondent used the conservation efforts around Lake George as an example of what he would like to see from Saratoga County, citing the easy access of their public trail system and convenience of their informative website. Most referred to it as an added benefit to the trail but not a driving force.

History and education were touched upon in a similar way. Respondents explained that having knowledge about the history of their area would be an interesting style to engage with their surroundings. Though it might make them more likely to use a/the trail, it would not be a deciding factor in the creation of a new one.

Table 2. The appeal of the Palmertown Trail, representative quotes from interviews with residents, employees, and business owners from Corinth, Moreau, Wilton, and Saratoga Springs

Business	Community	Health
<p>I think [trails and outdoor recreation amenities in the area attract business] because like I said, we do the Airbnbs and we get people who are coming up to hike. You know, I have a lot of people that say what places are good to hike in the area. You know, what's an outdoor activity we can do? Stuff like that. -- Corinth Resident</p>	<p>Yea, [having Corinth be an outdoor recreation area] would be nice... Everything's here. Just gotta have something to put it together. -- Corinth Resident</p> <p>It would be for my kids... the views, the excitement, the hardness of it. -- Corinth Resident</p>	<p>I would say improvement in human health would be number one. -- Corinth Resident</p> <p>Anyone who does not see the direct correlation between access to nature and health needs to read a book. -- Moreau Resident</p>
<p>I would say within the community it would increase revenue. Just bringing in people, you know, you bring in people just for a weekend and they're going to eat here or buy here and stuff like that. -- Corinth Resident</p>	<p>It's all a benefit to the area as well as just meeting people. -- Corinth Resident</p> <p>Most of us and our whole clientele live right here. It would give people something to do with their kids, places to bring their kids.</p>	<p>I feel like it would be a general improvement for human health because I know a lot of people around here want to get fit and healthy. It's the 21st century and we are getting over the whole obesity crisis. I think a lot of people would use it if it was safer</p>

<p>It would help business because there's another way to get here and puts people in the area to come out. -- Wilton Resident</p> <p>We sell cross country skis and snowshoes, so more people would be coming in and buying products. -- Saratoga Springs Resident</p>	<p>--Wilton Resident</p>	<p>and not off the road, so that's the top one. -- Wilton Resident</p>
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Commuting	Conservation	History/Education
<p>Growing up I would always use [the hiking and/or multi-use trails that are located in Saratoga County], you know, biking and walking places. -- Wilton Resident</p> <p>It would make it easier for people to get around, especially those who don't drive or have cars. I think it would affect everybody in a positive way. -- Wilton Resident</p> <p>I used to bike everywhere because I didn't have a car. I even mountain biked near the Skidmore trails and all of that. I know that there's a railroad trail in Saratoga and I use that a lot... it's a very convenient, cut path and it doesn't have cars so it's safe. -- Wilton Resident</p>	<p>I don't know about Saratoga County, but I've seen Lake George land conservancies buying up land around Lake George and I think their end goal is to get a trail system around the whole lake and get a single trail that everyone can go all the way around the lake. Watching those efforts are cool to see. They have so much property now and you can go to their website and all their information is right there. -- Moreau Resident</p> <p>I think it would make people more aware. -- Corinth Resident</p>	<p>It'd be fun to know more about the place and little facts, that's something that locals around here also want. --Saratoga Springs Resident</p> <p>Maybe if they had... something pointing out facts and stuff. More historical value and maybe educational. -- Corinth Resident</p> <p>Day to day we just work and we sleep and work in our yard, but you have relatives come to visit and you want to show them something and do something. Say, well look what we have, you know, some things all within your backyard, 10 minutes. -- Corinth Resident</p>

<p>I think there are a lot of great trails to choose from IF you have a car. -- Saratoga Resident</p>		
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Online Survey

Thirty-five percent of respondents earn an annual household income of more than \$100,000, as shown in Figure 6. From that percentage, 53.6% completed a graduate or professional program. Meanwhile, only 35% of respondents reported an annual income of less than \$75,000 and 13% preferred not to disclose this information. The median income of the survey respondents is \$75,000, which is slightly lower than \$77,548, the reported median income for Saratoga County in 2017 (Data USA, 2017).

Figure 6. Household Income and Education in the Sample (n=354)

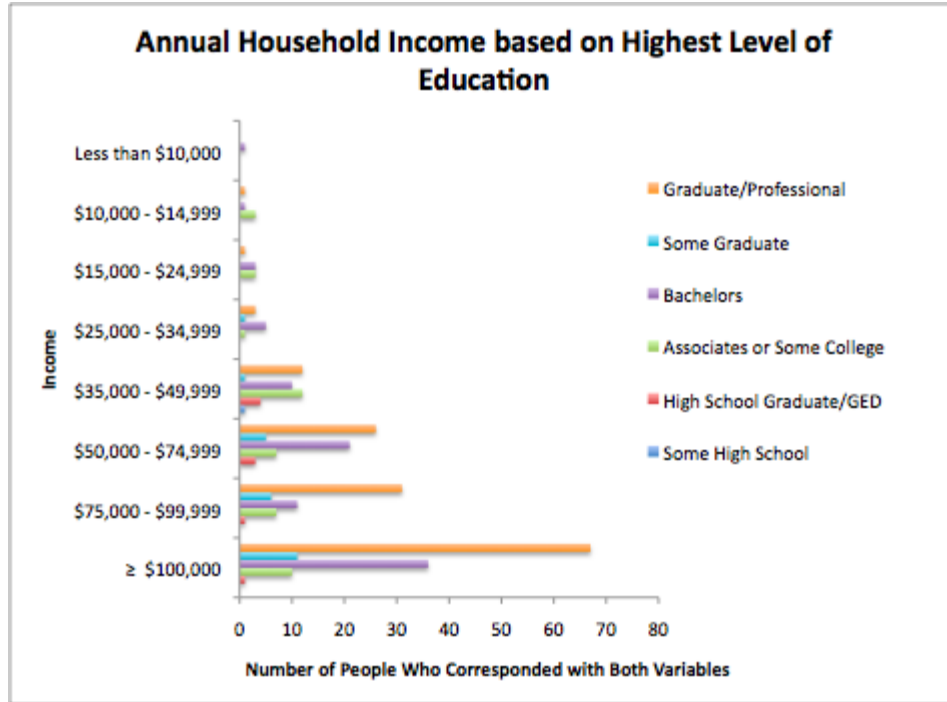
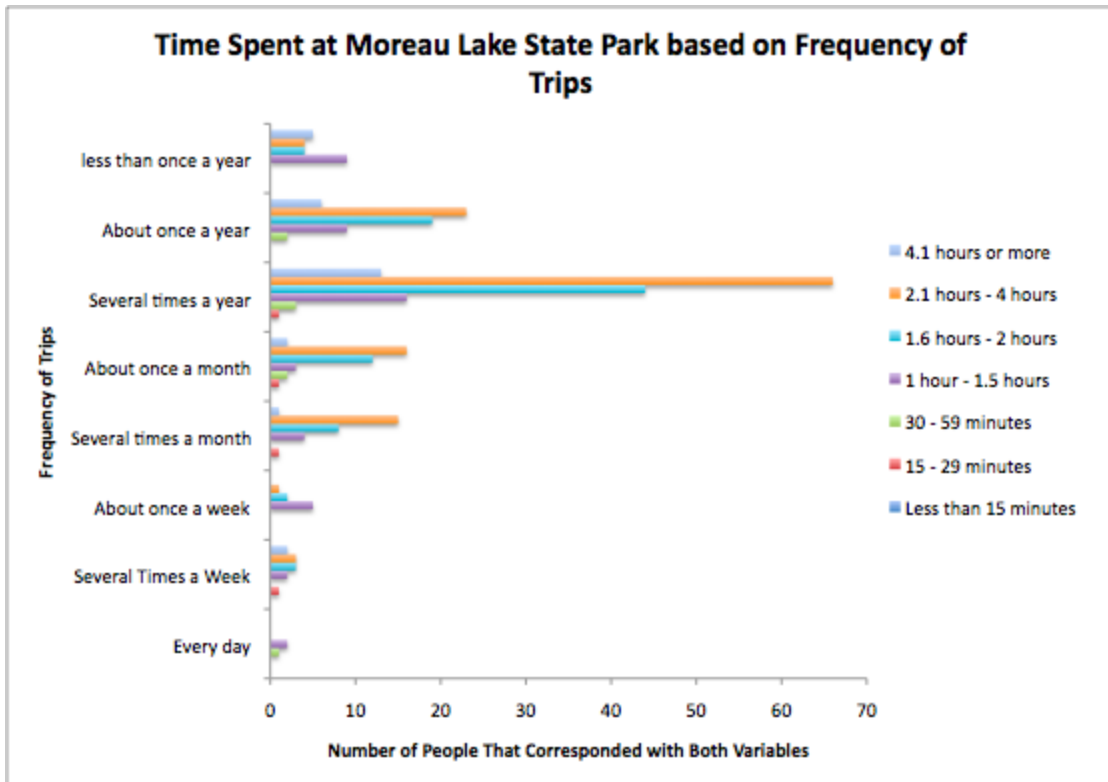


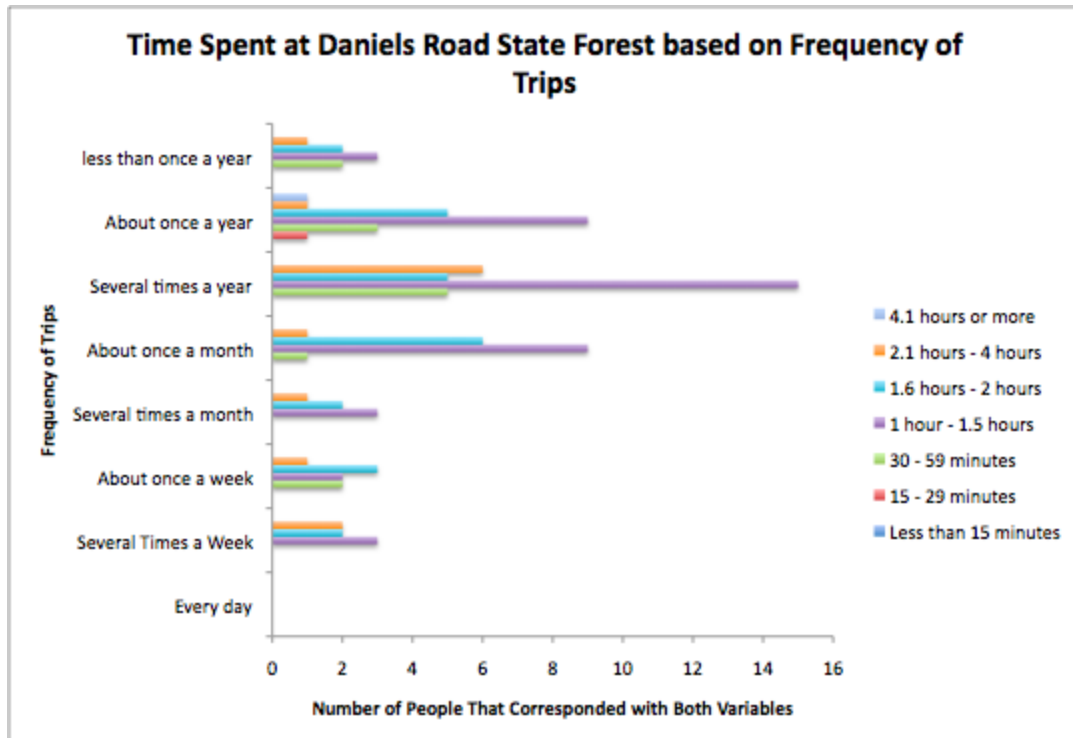
Figure 7 below shows that most visitors of Moreau Lake State Park reported approximately three visits per year and 46.15% of them reported spending 2.1 to 4 hours at the park during these visits. Less than 5% of respondents reported spending less than an hour at the park, no matter how often they visit.

Figure 7. Time Spent Each Trip at Moreau Lake State Park and Frequency (n=282)



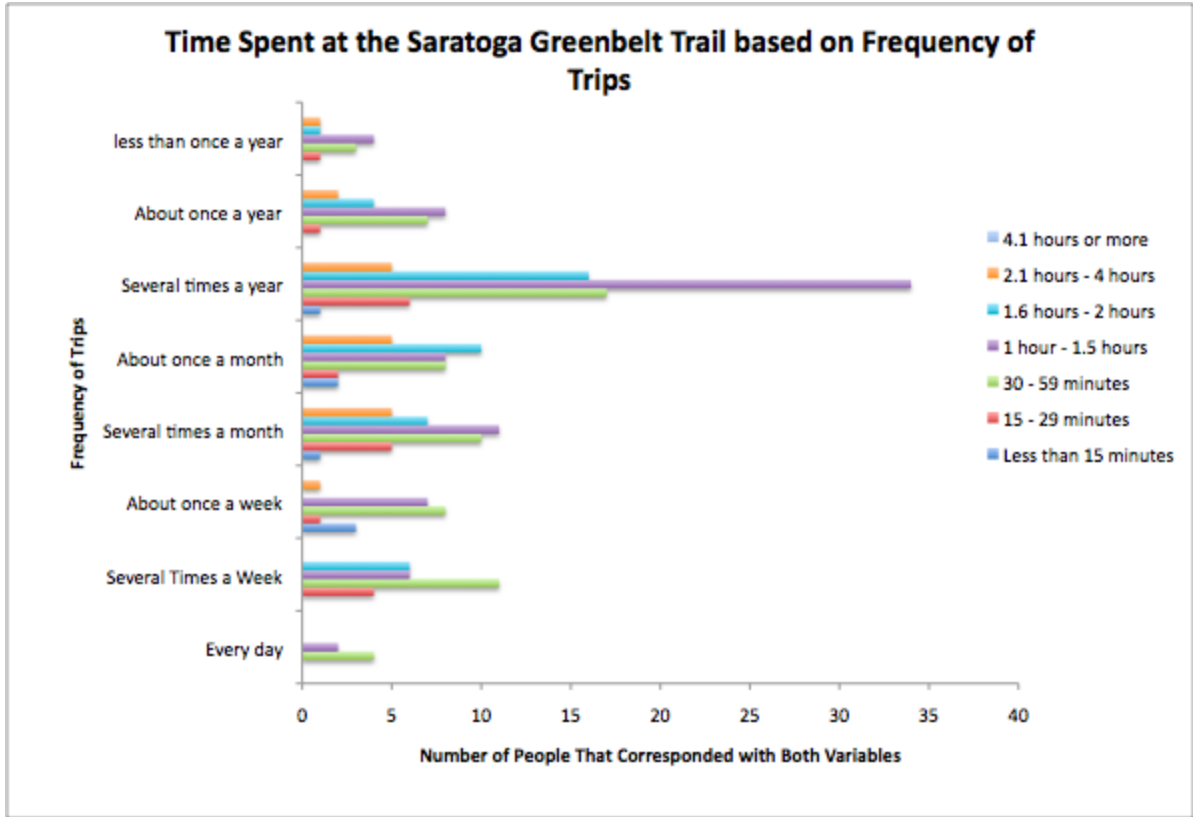
At Daniels Road State Forest, there is less foot traffic. With a sample size of 96 respondents, most visit the park approximately three times per year (32.32%) and of those visitors, 48.39% of them spend 1 to 1.5 hours there. Figure 8 below shows how frequently users visit and how much time they typically spend there during each visit.

Figure 8. Time Spent Each Trip at Daniels Road State Forest and Frequency (n=96)



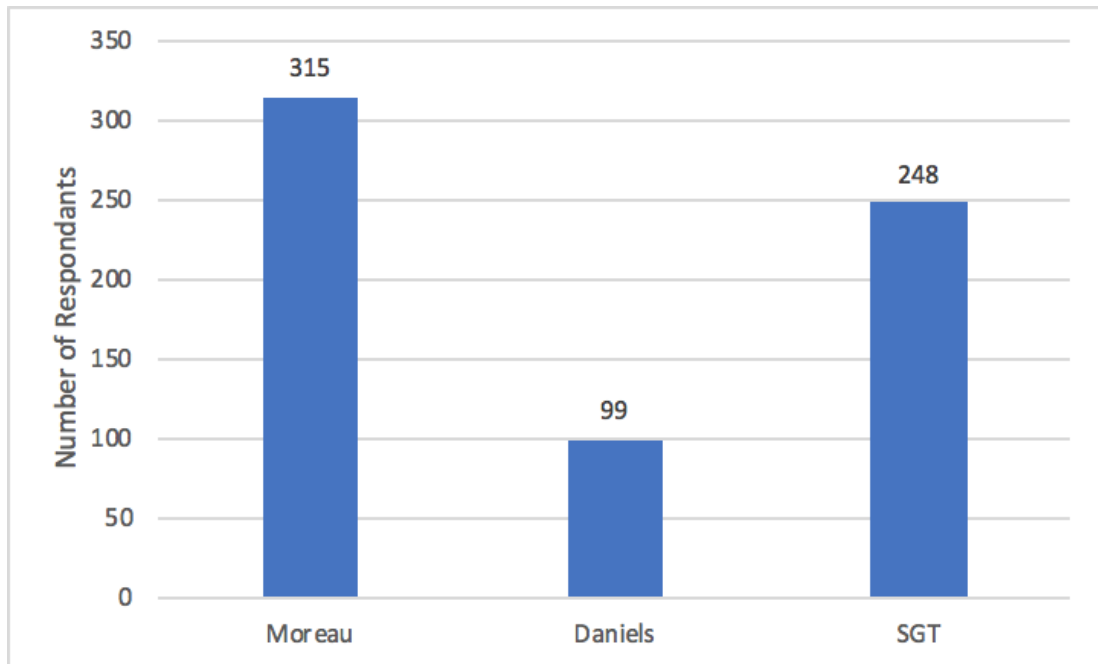
238 respondents reported visiting the network of trails within the Saratoga Greenbelt Trail. Again, most visitors (32.39%) use the trails approximately three times per year and of those visitors 43.04% spend 1 to 1.5 hours on the trails. Regardless of how frequent their visits are, 33.47% of visitors spend 1 to 1.5 hours using the Saratoga Greenbelt Trail. Figure 9 shows how frequently respondents visit the trails and how much time they typically spend at the trails.

Figure 9. Time Spent Each Trip at the Saratoga Greenbelt Trail and Frequency (n=238)



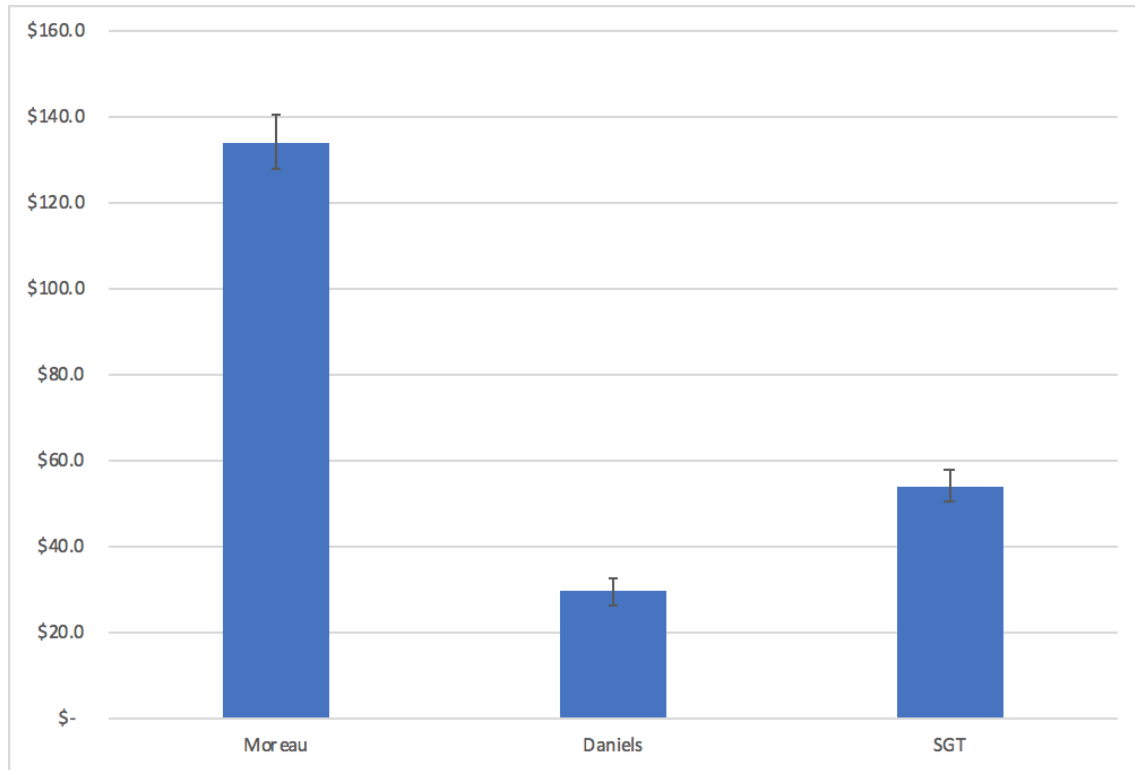
Our findings indicate that, on average, a visit to Moreau Lake State Park costs a person \$134.00, a visit to Daniels Road State Forest costs \$29.50 and a visit to the Saratoga Greenbelt Trail costs \$54.10 (Figure 10).

Figure 10. The number of respondents who reported to users of each of the three recreational areas: Moreau Lake State Park, Daniels Road State Forest, and the Saratoga Greenbelt Trail (n = 402)



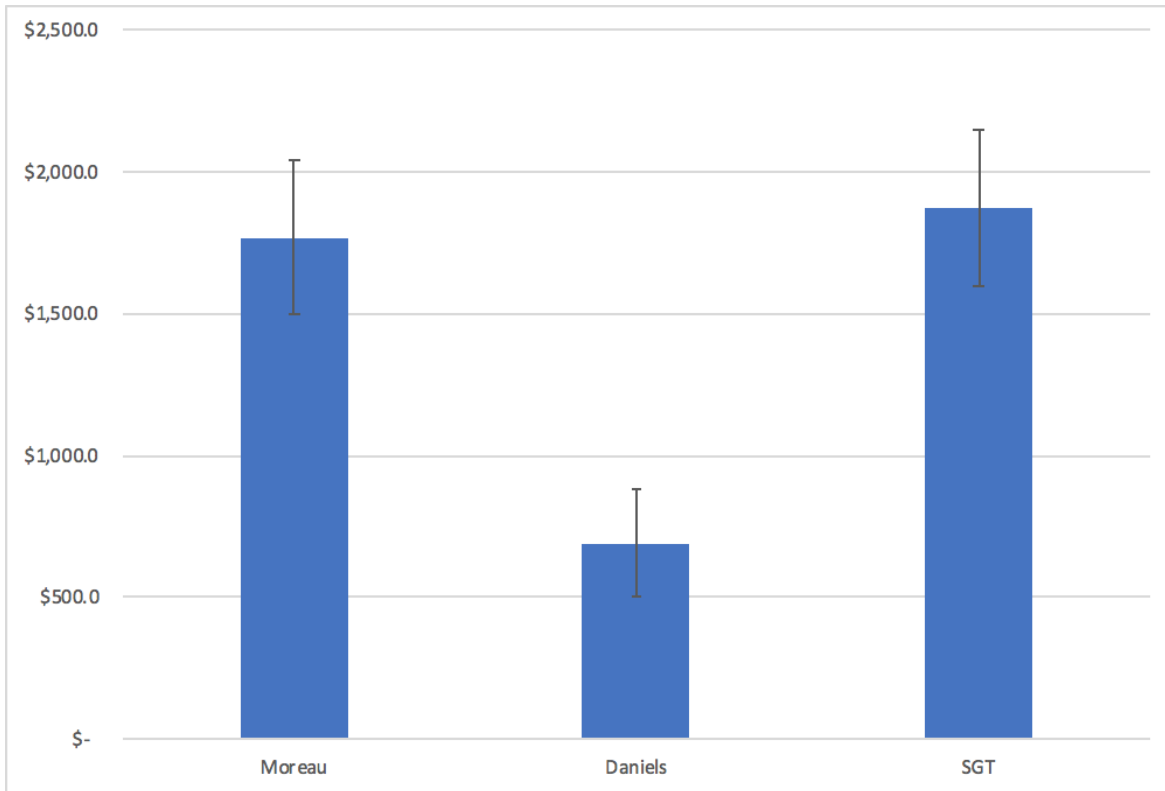
Based on the responses from the survey Moreau Lake State Park is the most used by local residents. After Moreau Lake State Park is the Saratoga Greenbelt Trail with only 21% fewer residents using the area (Figure 10). Only 99 out of the 402 respondents reported using Daniels Road State Park, which has substantially fewer users than Moreau Lake State Park and the Saratoga Greenbelt Trail (Figure 10).

Figure 11. The mean per trip cost for each of the recreational parks, calculated using equation (1).



The results of our TCM analysis indicates significant variability between the mean per trip cost for Moreau Lake State Park, Daniels Road State Forest, and the Saratoga Greenbelt Trail. The found mean cost of a trip to Moreau Lake State Park is \$134.00. This is more than double the mean trip cost to the Saratoga Greenbelt Trail, which is approximately \$54.10 per visit. However, the results indicate that Daniels Road State Park, at a cost of \$29.50, has the lowest per trip cost out of all three of the recreational areas.

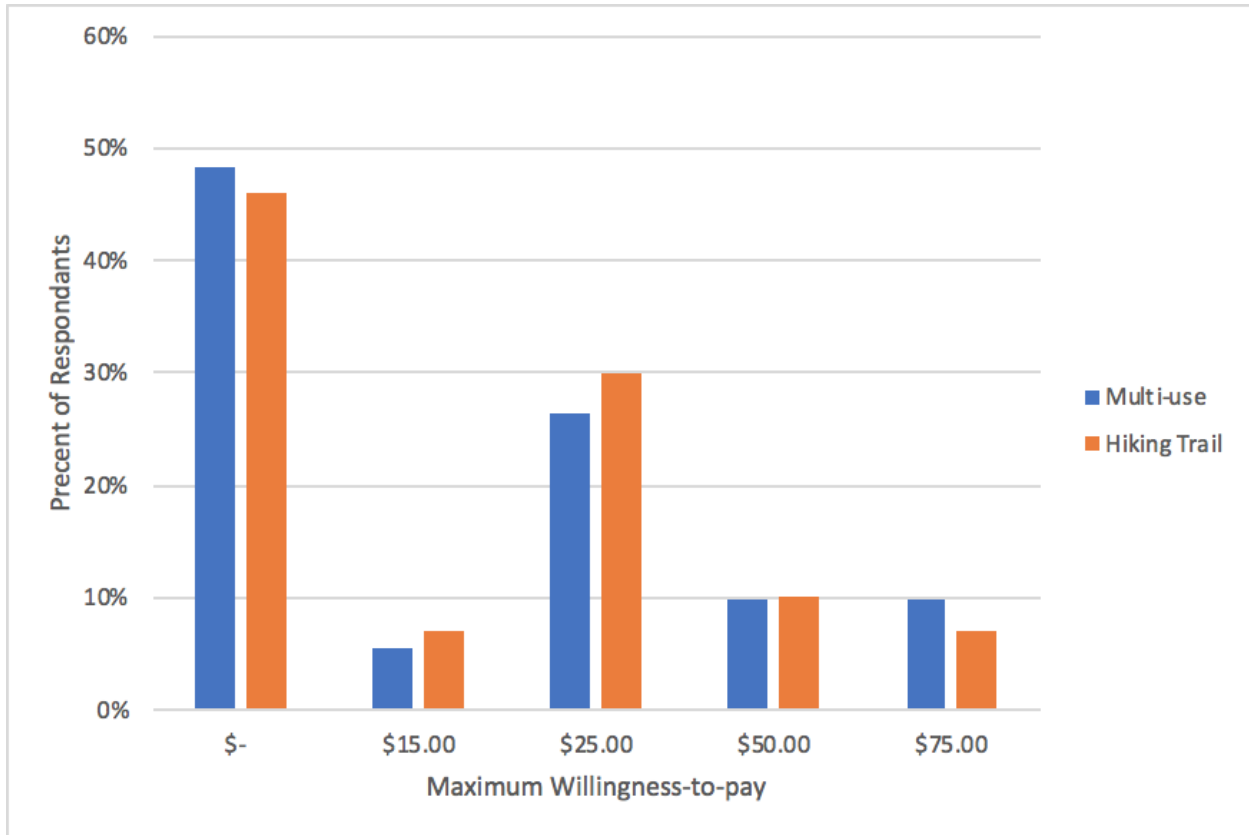
Figure 13. The mean total annual value (per resident) of each of the recreational parks, calculated using equation (2). (n=402)



When breaking down the average amount of money a visitor spends at each one of the parks per year, which is calculated by multiplying each person's per trip cost by their number of visits per year, the results show that visitors spend slightly more money to use the Saratoga Greenbelt Trail in comparison to Moreau Lake State Park. However, these results are not significant under a 95% level of confidence. On average, residents spend significantly less money annually visiting Daniels Road State Park. The average Saratoga County resident spends \$1,767.90 annually visiting Moreau Lake State Park and \$1,873.30 annually visiting the Saratoga Greenbelt Trail while the average annual money spent visiting Daniels Road State Forest is only \$692.6.

Using estimated visitation rates and the mean trip cost presented in Figure 11, we found the total annual value of the Saratoga Greenbelt Trail is \$6,865,095.55 and \$53,604,710.22 for Moreau Lake State Park. We were not able to estimate the total annual value for Daniels Road State Forest since there is no public record of the state forest's annual visitation rates.

Figure 13. Respondents Reported Maximum Annual WTP for Multi-use and Hiking Trails (n=402).



As seen in Figure 12, the average maximum annual WTP for multi-use trails is \$19.85, and for hiking trails is \$18.83. While the found WTP is slightly higher for multi-use trails, the results are not significant enough to conclude that the community puts a higher value on multi-use trails.¹

Discussion and Conclusions

Our TCM analysis found that the cost per trip of Moreau Lake State Park, Daniels Road State Forest, and the Saratoga Greenbelt Trail is \$134.00, \$29.50 and \$54.10, respectively. While there is significant variation between the per trip cost of the three parks, the per trip cost of Moreau Lake State Park being the highest and Daniels Road State Forest being the lowest, there was less variation in the average amount of money that residents spend annually at each of the parks. The average cost, including opportunity cost, residents spend annually at the Saratoga Greenbelt Trail and Moreau Lake State Park is around \$1,700 to \$1,800. Daniels Road State Forest average annual cost and opportunity cost is significantly lower at \$692.60. The average annual cost of Moreau Lake State Park and the Saratoga Greenbelt Trail are similar, the per trip cost is significantly higher because users of the Saratoga Greenbelt Trail appear to use the trail system more frequently than Moreau Lake State Park. It is likely that the Saratoga Greenbelt

¹ The t-test results comparing the mean willingness-to-pay results indicated that the variation between the means is not significant under a 90% level of confidence (P>0.05).

Trail receives more frequent use by its users because the per cost visit is less expensive and the trail system is used for commuting.

Using reported visitation rates and the TCM results, we found that the total annual value of Moreau Lake State Park is \$53.6 million and the total annual value of the Saratoga Greenbelt Trail is \$6.86 million. Based on these results, we expect that the creation of a trail that connects Moreau Lake State Park to the Saratoga Greenbelt Trail will have a value within that range. It is likely that Moreau Lake State Park is valued higher because it has more miles of trail making it more worthwhile to travel for. If this is true, then the creation of the Palmertown Trail will bring more value to the existing trail network.

Even though Moreau Lake State Park—a network of naturally paved hiking-trails—has a higher annual value than the Saratoga Greenbelt Trail, a multi-use trail network, our CV results showed that there is no clear preference towards one type of trail. However, several respondents indicated a strong preference for either multi-use or hiking trails; but overall, our findings showed that Saratoga County residents would be willing to pay between \$18.83 to \$19.85 annually for a trail that connects the Saratoga Greenbelt Trail to Moreau Lake State Park.

While the TCM and CV results can provide an estimate regarding how much Saratoga County residents value the trails, there are many social and economic benefits that the trail systems in Saratoga County Provide that are not accounted for in this economic research. When conducting our semi-structured interviews, the business owners and workers we interviewed most frequently discussed the potential benefit that the trail system can bring to their businesses. The interviewees also frequently mentioned how the trail systems are important for commuting and their health, as well as an important tool for bringing the community together and conserving local land.

Limitations

The limitations of our methods began with the spontaneous nature of our semi-structured interviews. We intended to interview businesses that could benefit from a trail network, but not all businesses were willing to speak with us because they did not believe that their business would benefit. More so, many of the interviewees were people recommended by other business owners. These recommendations were often directed towards people who were more interested and more frequent users of the trails system.

Another limitation is the breadth of our survey. Though we posted our survey in various locations online, via county non-profit organizations, and in public spaces in the stakeholder towns, we hope that the survey reached all five towns: Wilton, Corinth, Moreau, Greenfield and Saratoga Springs. However, 36% of our respondents were from Saratoga Springs. This unequal distribution of responses from our county is likely because we have more connections in Saratoga Springs. Our survey responses are also likely biased, as those who are willing to fill out the survey are likely more interested in trails.

Additionally, there are inherent limitations in attributing a monetary value to a public good using CVM and TCM. It is likely that the value that respondents attributed to the trail was

inflated. Often in stated preference surveys, respondents state a price that they would ideally pay rather than a price they would actually pay. The derived total annual values of the parks are skewed because there were no public reports for annual visitation of Daniels Road State Forest, and therefore our report only accounts for those who took our survey. Additionally, the total annual value estimate for the Saratoga Greenbelt Trail is skewed down because the public estimate is only based on the recorded annual visitation of Railroad Run. There is no public record of annual visits for Spring Run and Bog Meadow Brook Trail.

Conclusion

The purpose of this research was to investigate the benefits that trail networks within Saratoga County bring to the local community and economy to inform the development of the Palmertown Range Trail. With this research we aimed to answer the following three questions:

1. To what extent will the creation of a recreational trail benefit the local economy, public health, and conserve/protect natural resources?
2. Would the construction of a recreational Palmertown Trail promote enhanced opportunities for outdoor recreation in Saratoga County?
3. How can the Travel Cost Method and Contingent Value Method help us evaluate the value of a trail in Saratoga County?

Overall, we found that business owners see value in building additional outdoor recreational space in Saratoga County. An expanded trail network system will increase attraction to the county and promote sustainable economic growth by aiming conservation efforts at creating longer multi-use trails for users. While TCM and CVM have many limitations, these economic tools can be a useful way of gauging how much a community values a public good and can provide information to match future development with community preferences.

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Appendix

Method 1: Semi-Structured Interviews

Introduce ourselves as environmental studies students working on a senior thesis about outdoor recreation, ask if comfortable recording

If we would like to use a quote from you, would you prefer it to be anonymous?

1. What is your name?
2. How old are you?
3. Where do you currently live, and how long have you lived in this region/County?
4. How often do you use the hiking and/or multi-use trails that are located in Saratoga

- County and what is most important for you when choosing a trail?
5. Which trails do you use most frequently, and what do you use them for?
 6. Do you use these trails in any particular season or in all seasons equally?
 7. In your opinion, what are some of the strengths of the network of trails located in Saratoga County?
 8. In your opinion, how could this trail network be improved upon?
 9. To what extent do you think it's important for the public to have access to an expanded trail network, or do you believe that there is an adequate number of trails to choose from?
 10. Have you ever recommended that your clients use the trail network in Saratoga County? If so, which ones and why?
Background on Palmertown - connect three outdoor recreation hubs to promote conservation, recreation, and economic development
 11. With this in mind, to what extent do you think this business and your clients would benefit from the creation of the Palmertown Trail?
 12. How would you rank the following in relation to the benefits of an improved trail network - through the construction of the Palmertown Trail in Saratoga County?
 - A) Increases in revenue for this business
 - B) Improvement in Human Health
 - C) Conservation and/or protection of County forests and wildlife habitat
 - D) Other we did not mention

Method 2: Contingent Valuation and Travel Cost Survey

Palmertown Trail Survey

Start of Block: General Trail Use

This survey aims to understand the uses and preferences of outdoor recreation trails and pathways in Saratoga County. All information will remain anonymous and the conclusions derived from this study will help inform the construction of future trails in Saratoga County.

The study is being conducted by three Skidmore College Environmental Studies and Science majors in cooperation with Saratoga PLAN and the Open Space Institute for a Senior Capstone Project. We thank you for your participation!

At the end of the survey you will have the opportunity to enter a raffle to win a \$10 Apple gift card!

Use in County How often do you use trails or recreational pathways in Saratoga County?

- Every day (1)
- Several times a week (2)
- About once a week (3)
- Several times a month (4)
- About once a month (5)
- Several times a year (6)
- About once a year (7)
- Less than once a year (8)
- Never (9)
- Prefer not to say (0)

Skip To: Prevention If How often do you use trails or recreational pathways in Saratoga County? = Never

How do you use the trails and pathways in Saratoga County? (Select all that apply)

- Plant or wildlife viewing (1)
- Cycling (2)
- Hiking/Walking (3)
- Walking the dog (4)
- Jogging/Running (5)
- Scientific research (6)
- Education (7)
- Hunting (8)
- Commuting (9)

- Snowshoeing (10)
- Snowmobiling (11)
- Other (12)
- Prefer not to say (0)

What motivates you to use the trails and pathways in Saratoga County? (Select all that apply)

- Exercise and Fitness (1)
- Socializing (2)
- Enjoying Nature and the Outdoors (3)
- Reduce Stress or Unwind (4)
- Solitude (5)
- Other (6)
- Prefer not to say (0)

What prevents you from using trails or pathways in Saratoga County? (Select all that apply)

- Nothing prevents me (10)
- I am not interested (1)
- I don't have time (2)
- I don't have adequate transportation (3)
- Too far from my home (4)
- I feel unsafe (5)
- I don't know where trails or pathways are located (6)
- Do not fit my needs (7)
- I prefer to use trails outside of Saratoga County (8)
- Other (9)
- Prefer not to say (0)

End of Block: General Trail Use

Start of Block: Moreau Lake State Park

Do you visit Moreau Lake State Park? (See the map below)

- Yes (1)
- No (2)
- I don't know (0)
- Prefer not to say (0)

Skip To: End of Block If Do you visit Moreau Lake State Park? (See the map below) = No

Skip To: End of Block If Do you visit Moreau Lake State Park? (See the map below) = I don't know

How often do you visit Moreau Lake State Park?

- Every day (1)
- Several times a week (2)
- About once a week (3)
- Several times a month (4)
- About once a month (5)
- Several times a year (6)
- About once a year (7)
- Less than once a year (8)
- Never (9)
- I don't know (0)

Skip To: End of Block If How often do you visit Moreau Lake State Park? = Never

How do you get to Moreau Lake State Park? (Select all that apply)

- Car (1)
- Public Transportation (2)
- Walking (3)
- Biking (4)
- Other (5)
- Prefer not to say (0)

Approximately, how long does it take you to travel (round-trip) to get to Moreau Lake State Park?

- Less than 5 minutes (5)
- 5 - 10 minutes (7.5)
- 11 - 20 minutes (15.5)
- 21 - 40 minutes (30.5)
- 41 - 59 minutes (50)
- 1 - 2 hours (90)
- More than 2 hours (120)
- I don't know (0)

Approximately, how far do you travel (round-trip) to get to Moreau Lake State Park?

- Less than a mile (1)
- 1 - 10 miles (5.5)
- 11 - 20 miles (15.5)
- 21 - 40 miles (30.5)
- 41 - 60 miles (50.5)
- 61 - 80 miles (70.5)
- 81 - 100 miles (90.5)
- More than 100 miles (100.5)
- I don't know (0)

How long is your typical visit at Moreau Lake State Park?

- Less than 15 minutes (15)
- 15 - 29 minutes (22)
- 30 - 59 minutes (44.5)
- 1 hour - 1.5 hours (75)
- 1.6 hours - 2 hours (108)
- 2.1 hours - 4 hours (183)
- 4.1 hours or more (246)
- I don't know (0)

On average, how much money do you spend when visiting Moreau Lake State Park (parking, food, activities, etc.)?

- Less than \$5 (5)
- \$5 - \$10 (7.5)
- \$11 - \$20 (15.5)
- \$21 - \$30 (25.5)
- \$31 - \$50 (40.5)
- More than \$50 (50)
- I don't know (0)

End of Block: Moreau Lake State Park

Start of Block: Daniels State Forest

Do you visit Daniels Road State Forest? (See map below)

- Yes (1)
- No (2)
- I don't know (0)
- Prefer not to say (0)

Skip To: End of Block If Do you visit Daniels Road State Forest? (See map below) = No
Skip To: End of Block If Do you visit Daniels Road State Forest? (See map below) = I don't know

How often do you visit Daniels Road State Forest?

- Every day (1)
- Several times a week (2)
- About once a week (3)
- Several times a month (4)
- About once a month (5)
- Several times a year (6)

- About once a year (7)
- Less than once a year (8)
- Never (9)
- I don't know (0)

Skip To: End of Block If How often do you visit Daniels Road State Forest? = Never

How do you get to Daniels Road State Forest? (Select all that apply)

- Car (1)
- Public Transportation (2)
- Walking (3)
- Biking (4)
- Other (5)
- Prefer not to say (0)

Approximately, how long does it take you to travel (round-trip) to get to Daniels Road State Forest?

- Less than 5 minutes (5)
- 5 - 10 minutes (7.5)
- 11 - 20 minutes (15.5)
- 21 - 40 minutes (30.5)
- 41 - 59 minutes (50)
- 1 - 2 hours (90)
- More than 2 hours (120)
- I don't know (0)

Approximately, how far do you travel (round-trip) to get to Daniels Road State Forest?

- Less than a mile (1)
- 1 - 10 miles (5.5)
- 11 - 20 miles (15.5)
- 21 - 40 miles (30.5)

- o 41 - 60 miles (50.5)
- o 61 - 80 miles (70.5)
- o 81 - 100 miles (90.5)
- o More than 100 miles (100)
- o I don't know (0)

How long is your typical visit at Daniels Road State Forest?

- o Less than 15 minutes (15)
- o 15 - 29 minutes (22)
- o 30 - 59 minutes (44.5)
- o 1 hour - 1.5 hours (75)
- o 1.6 hours - 2 hours (108)
- o 2.1 hours - 4 hours (183)
- o 4.1 hours or more (246)
- o I don't know (0)

On average, how much money do you spend when visiting Daniels Road State Forest (parking, food, activities, etc.)?

- o Less than \$5 (5)
- o \$5 - \$10 (7.5)
- o \$11 - \$20 (15.5)
- o \$21 - \$30 (25.5)
- o \$31 - \$50 (40.5)
- o More than \$50 (50)
- o I don't know (0)

End of Block: Daniels State Forest

Start of Block: Saratoga Greenbelt Trail

Do you use the Saratoga Greenbelt Trail? This trail includes Railroad Run, Spring Run, and Bog Meadow Trail. (See map below)

- Yes (1)
- No (2)
- I don't know (0)
- Prefer not to say (0)

Skip To: End of Block If Do you use the Saratoga Greenbelt Trail? This trail includes Railroad Run, Spring Run, and Bog Me... = No

Skip To: End of Block If Do you use the Saratoga Greenbelt Trail? This trail includes Railroad Run, Spring Run, and Bog Me... = I don't know

How often do you visit the Saratoga Greenbelt Trail?

- Every day (1)
- Several times a week (2)
- About once a week (3)
- Several times a month (4)
- About once a month (5)
- Several times a year (6)
- About once a year (7)
- Less than once a year (8)
- Never (9)
- I don't know (0)

Skip To: End of Block If How often do you visit the Saratoga Greenbelt Trail? = Never

SGT Transportation How do you get to the Saratoga Greenbelt Trail?

- Car (1)
- Public Transportation (2)
- Walking (3)
- Biking (4)
- Other (5)
- Prefer not to say (0)

Approximately, how long does it take you to travel (round-trip) to get to the Saratoga Greenbelt Trail?

- Less than 5 minutes (5)
- 5 - 10 minutes (7.5)
- 11 - 20 minutes (15.5)
- 21 - 40 minutes (30.5)
- 41 - 59 minutes (50)
- 1 - 2 hours (90)
- More than 2 hours (120)
- I don't know (0)

Approximately, how far do you travel (round-trip) to get to the Saratoga Greenbelt Trail?

- Less than a mile (1)
- 1 - 10 miles (5.5)
- 11 - 20 miles (15.5)
- 21 - 40 miles (30.5)
- 41 - 60 miles (50.5)
- 61 - 80 miles (70.5)
- 81 - 100 miles (90.5)
- More than 100 miles (100)
- I don't know (0)

How long is your typical visit at the Saratoga Greenbelt Trail?

- Less than 15 minutes (15)
- 16 - 29 minutes (22)
- 30 - 59 minutes (44.5)
- 1 hour - 1.5 hours (75)
- 1.6 hours - 2 hours (108)
- 2.1 hours - 4 hours (183)
- 4.1 hours or more (246)
- I don't know (0)

On average, how much money do you spend when visiting the Saratoga Greenbelt Trail (parking, food, activities, etc.)?

- Less than \$5 (5)
- \$5 - \$10 (7.5)
- \$11 -\$20 (15.5)
- \$21 -\$30 (25.5)
- \$31 - \$50 (40.5)
- More than \$50 (50)
- I don't know (0)

End of Block: Saratoga Greenbelt Trail

Start of Block: WTP Introduction

The following section will ask you to place monetary values on multi-use paved/crushed stone trails and dirt hiking trails. The questions pose hypothetical scenarios to gauge the amount of value these two types of trails would bring to the community. There are no future plans to charge for the use of trails.

End of Block: WTP Introduction

Start of Block: Willingness to Pay for a Multi-Use Trail

In this section you will be asked about your preferences for multi-use trails. A multi-use trail is paved or crushed stone which allows for biking, jogging, and walking in all seasons. The below image identifies a multi-use trail.

Would you be willing to pay \$25 annually for a multi-use paved/crushed gravel trail connecting the Saratoga Greenbelt Trail to Moreau Lake State Park?

- Yes (25)
- No (0)
- Prefer not to say (0)

Skip To: MU \$50 If Would you be willing to pay \$25 annually for a multi-use paved/crushed gravel trail connecting th... = Yes

Skip To: MU \$15 If Would you be willing to pay \$25 annually for a multi-use paved/crushed gravel trail connecting th... = No

Skip To: MU WTP If Would you be willing to pay \$25 annually for a multi-use paved/crushed gravel trail connecting th... = Prefer not to say

Would you be willing to pay \$15 annually for a multi-use paved/crushed gravel trail connecting the Saratoga Greenbelt Trail to Moreau Lake State Park?

- Yes (15)
- No (0)
- Prefer not to say (0)

Skip To: MU WTP If Would you be willing to pay \$15 annually for a multi-use paved/crushed gravel trail connecting th... = No

Skip To: End of Block If Would you be willing to pay \$15 annually for a multi-use paved/crushed gravel trail connecting th... = Yes

Skip To: MU WTP If Would you be willing to pay \$15 annually for a multi-use paved/crushed gravel trail connecting th... = Prefer not to say

Would you be willing to pay \$50 annually for multi-use paved/crushed gravel trail connecting the Saratoga Greenbelt Trail to Moreau Lake State Park?

- Yes (50)
- No (0)
- Prefer not to say (0)

Skip To: MU \$75 If Would you be willing to pay \$50 annually for multi-use paved/crushed gravel trail connecting the ... = Yes

Skip To: MU WTP If Would you be willing to pay \$50 annually for multi-use paved/crushed gravel trail connecting the ... = No

Skip To: MU WTP If Would you be willing to pay \$50 annually for multi-use paved/crushed gravel trail connecting the ... = Prefer not to say

Would you be willing to pay \$75 annually for multi-use paved/crushed gravel trail connecting the Saratoga Greenbelt Trail to Moreau Lake State Park?

- Yes (75)
- No (0)
- Prefer not to say (0)

Skip To: MU WTP If Would you be willing to pay \$75 annually for multi-use paved/crushed gravel trail connecting the ... = Yes

Skip To: MU WTP If Would you be willing to pay \$75 annually for multi-use paved/crushed gravel trail connecting the ... = No

Skip To: MU WTP If Would you be willing to pay \$75 annually for multi-use paved/crushed gravel trail connecting the ... = Prefer not to say

Please state the amount you would be willing to pay annually (in USD) for multi-use paved/crushed gravel trail connecting the Saratoga Greenbelt Trail to Moreau Lake State Park?

End of Block: Willingness to Pay for a Multi-Use Trail

Start of Block: Willingness to Pay for a Hiking Trail

In this section you will be asked about your preferences for hiking trails. A hiking trail is a dirt pathway, typically 2 feet wide with naturally occurring stones and roots, mainly used for mountain biking and hiking. The below image identifies a hiking trail.

Would you be willing to pay \$25 annually to have a hiking trail connecting the Saratoga Greenbelt Trail to Moreau Lake State Park?

- Yes (25)
- No (0)
- Prefer not to say (0)

Skip To: H \$50 If Would you be willing to pay \$25 annually to have a hiking trail connecting the Saratoga Greenbelt... = Yes

Skip To: H \$15 If Would you be willing to pay \$25 annually to have a hiking trail connecting the Saratoga Greenbelt... = No

Skip To: H WTP If Would you be willing to pay \$25 annually to have a hiking trail connecting the Saratoga Greenbelt... = Prefer not to say

Would you be willing to pay \$50 annually to have a hiking trail connecting the Saratoga Greenbelt Trail to Moreau Lake State Park?

- Yes (50)
- No (0)

- Prefer not to say (0)

Skip To: T \$75 If Would you be willing to pay \$50 annually to have a hiking trail connecting the Saratoga Greenbelt... = Yes

Skip To: H WTP If Would you be willing to pay \$50 annually to have a hiking trail connecting the Saratoga Greenbelt... = No

Skip To: H WTP If Would you be willing to pay \$50 annually to have a hiking trail connecting the Saratoga Greenbelt... = Prefer not to say

Would you be willing to pay \$15 annually to have a hiking trail connecting the Saratoga Greenbelt Trail to Moreau Lake State Park?

- Yes (15)
- No (0)
- Prefer not to say (0)

Skip To: End of Block If Would you be willing to pay \$15 annually to have a hiking trail connecting the Saratoga Greenbelt... = Yes

Skip To: H WTP If Would you be willing to pay \$15 annually to have a hiking trail connecting the Saratoga Greenbelt... = No

Skip To: H WTP If Would you be willing to pay \$15 annually to have a hiking trail connecting the Saratoga Greenbelt... = Prefer not to say

Would you be willing to pay \$75 annually for a hiking trail connecting the Saratoga Greenbelt Trail to Moreau Lake State Park?

- Yes (75)
- No (0)
- Prefer not to say (0)

Skip To: H WTP If Would you be willing to pay \$75 annually for a hiking trail connecting the Saratoga Greenbelt Tra... = Yes

Skip To: H WTP If Would you be willing to pay \$75 annually for a hiking trail connecting the Saratoga Greenbelt Tra... = No

Skip To: H WTP If Would you be willing to pay \$75 annually for a hiking trail connecting the Saratoga Greenbelt Tra... = Prefer not to say

Please state how much would you be willing to pay annually (in USD) for a hiking trail connecting Saratoga Greenbelt Trail to Moreau Lake State Park.

End of Block: Willingness to Pay for a Hiking Trail

Start of Block: What age group are you in

What age group are you in?

- Under 18 (1)
- 18 - 24 (2)
- 25 - 34 (3)
- 35 - 44 (4)
- 45 - 54 (5)
- 55 - 64 (6)
- 65 - 74 (7)
- 75 - 84 (8)
- 85 + (9)
- Prefer not to say (0)

What is your highest level of education?

- Some High School (1)
- High School Graduate/GED (2)
- Associates or Some College (3)
- Bachelors (4)
- Some Graduate (5)
- Graduate/Professional (6)
- Prefer not to say (0)

Which option best describes your family's annual income?

- Less than \$10,000 (10000)
- \$10,000 - \$14,999 (12499.5)

- \$15,000 - \$24,999 (19999.5)
- \$25,000 - \$34,999 (29999.5)
- \$35,000 - \$49,999 (42499.5)
- \$50,000 - \$74,999 (62499.5)
- \$75,000 - \$99,999 (87499.5)
- \geq \$100,000 (100000)
- Prefer not to say (0)

What is your gender identity?

- Male (1)
- Female (2)
- Other (3)
- Prefer not to say (0)

Do you live in the Capital Region?

- Yes (1)
- No (2)
- I don't know (0)
- Prefer not to say (0)

What is your zip code?

End of Block: What age group are you in?

Start of Block: Raffle

Thank you for completing this survey! If you would like to be entered into a drawing to win one of three \$10 Apple Store gift cards, please enter your email address below. You do not need to enter your email if you do not wish to be entered into the drawing.

End of Block: Raffle