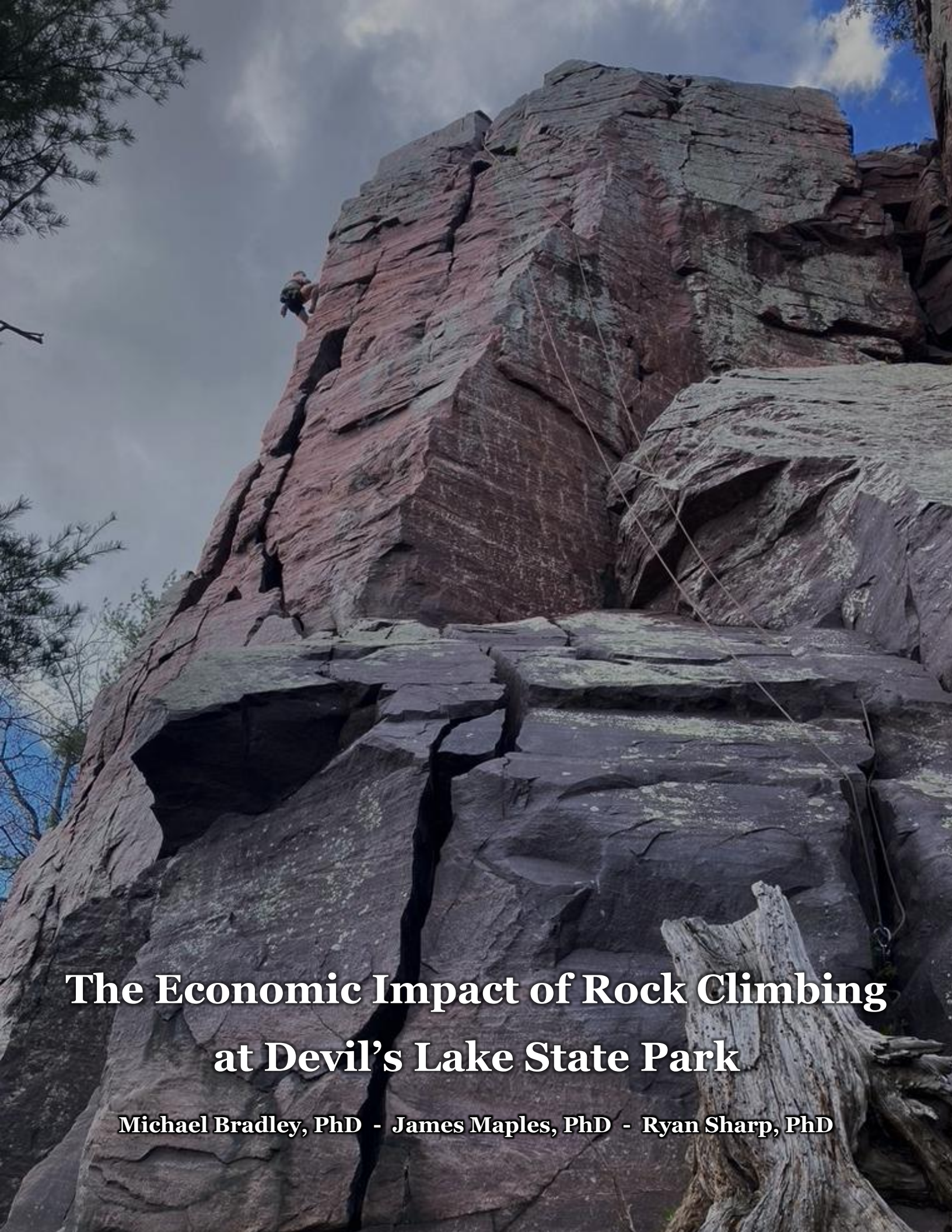

The Economic Impact of Rock Climbing at Devil's Lake State Park

Michael Bradley, PhD - James Maples, PhD - Ryan Sharp, PhD

Executive Summary

This study examined rock climbing use, spending patterns, and visitor characteristics at Devil's Lake State Park during the 2025 climbing season and estimated the associated economic impacts to Sauk County and the State of Wisconsin. Long regarded as one of the Midwest's most important climbing destinations, Devil's Lake is known for its quartzite cliffs, concentration of traditional routes, growing bouldering opportunities, and strong climbing community. Data were collected through an online survey of climbers conducted between March and October 2025, resulting in 609 usable responses, which were combined with visitation estimates from the Wisconsin Climbers Association and modeled using IMPLAN. Results showed that climbing at Devil's Lake represented a consistent and meaningful source of economic activity, with most climbers visiting primarily to climb, returning repeatedly, and staying overnight in the area. Spending was concentrated in Sauk County and supported local businesses, jobs, and tax revenues, while climbers also frequented local restaurants, breweries, retailers, and nearby recreation areas during rest days, extending the benefits of climbing related visitation beyond the park itself.

Notable Findings:

A. Devil's Lake State Park attracted an estimated 27,000 climbing-focused visits annually, based on visitation estimates provided by the Wisconsin Climbers Association. Survey results indicated that 60 percent of these visits included at least one overnight stay.

B. Climber spending supported an estimated $3.8 million in annual economic activity, including approximately $2.9 million in expenditures within Sauk County, with the remaining spending occurring elsewhere in Wisconsin.

C. Rock climbing activity at Devil's Lake supported an estimated 32 jobs statewide and generated approximately $1.5 million in labor income, with impacts concentrated primarily in Sauk County.

D. Day-use climbers spent an average of $40 per visit in Sauk County, while overnight climbers spent an average of $98 per visit on food, retail, and travel, in addition to lodging expenditures ranging from $34 to $128 per visit within Sauk County.

E. Demographic results indicated that climbers were generally well-educated and higher earning, with 43 percent holding a bachelor's degree and 33 percent holding an advanced degree. Approximately one-third of respondents reported personal annual incomes of $100,000 or more.

The Economic Impact of Rock Climbing at Devil's Lake State Park

Report Completion Date: January 28, 2026

Authors
Michael J. Bradley, Ph.D.
James N. Maples, Ph.D.
Ryan L. Sharp, Ph.D.

Project Funding and Support
This study was funded by the Wisconsin Climbers Association, with additional support from the Access Fund. The findings and conclusions presented in this report do not necessarily reflect the views of the funding organizations.

Acknowledgments
The authors extend their sincere thanks to the Wisconsin Climbers Association for their ongoing support and collaboration throughout this study. Their deep knowledge of the climbing community, assistance with outreach and visitation estimates, and commitment to stewardship played a vital role in making this work possible.

Contact Information
For questions about this study, please contact: reddirt_llc@outlook.com

Suggested Citation
Bradley, M.J., Maples, J.N., & Sharp, R.L. (2026). *The economic impact of rock climbing at Devil's Lake State Park*. Wisconsin Climbers Association.

Photography Credits
All images courtesy of Wisconsin Climbers Association

TABLE OF CONTENTS

EXECUTIVE SUMMARY **2**

METHODS **5**

SURVEY INSTRUMENT 5
DATA CLEANING 6
IMPLAN METHODS 7
INTERPRETING IMPLAN RESULTS 8

ANALYSIS **8**

DLSP USE PATTERNS 8
CLIMBER BACKGROUND INFORMATION 8
Table 1. Park Visitor Admission Fee Type *9*
Table 2. Climber Background Information *9*
DLSP CLIMBING USE PATTERNS ON THEIR MOST RECENT TRIP 9
Table 3. Climbing Use Patterns, Categorical Responses *10*
Table 4. DLSP Use Patterns, Continuous Measures *11*
LODGING USE PATTERNS 11
VISITATION PATTERNS 11
Table 5. Climber Overnight Lodging *11*
EXPENDITURE PATTERNS 12

ECONOMIC IMPACTS **13**

CHANGES IN VISITATION AND EXPENDITURES 13
EXPENDITURES AT QUARTZITE CLASSIC 13
Table 6. Annual Economic Impacts of Rock Climbing *14*
Table 7. Multipliers, Annual Economic Impacts of Rock Climbing *14*
TAXATION IMPACTS 15
Table 8. Annual Taxation Impacts Generated by Rock Climbing in DLSP *15*

DEMOGRAPHICS **15**

Table 9. Demographics: Sex, Gender, & Race/Ethnicity *16*
Table 10. Demographics: Education & Income *17*

NON-CLIMBING USE PATTERNS **17**

Table 11. Non-Climbing Use Patterns by Climbers *18*
Table 12. Non-climbing Rest Day Use Patterns by Climbers *18*

WCA PARTICIPATION **19**

Table 13. Wisconsin Climbers Association Participation *19*

APPENDICES **20**

Methods

Study Purpose and Location

The purpose of this study is to create new knowledge about the climbing community utilizing Devil's Lake State Park (henceforth, DLSP). Funded by the Wisconsin Climbers Association (WCA) with support from the Access Fund, the study draws on online survey data from climbers visiting DLSP. This study's goals are to identify climbing use patterns, expenditure trends, and demographic characteristics while estimating the economic impact of rock climbing at DLSP.

DLSP was established in 1911 in the Baraboo Range of Sauk County, Wisconsin. Archaeological evidence indicates human presence in the area dating back roughly 16,000 years, while Ho-Chunk cultural traditions extend more than 350,000 years.[1] The eponymous lake was formed roughly 16,000 years ago when the Wisconsin Glacier receded and impounded the surrounding river valley. Modern tourism began after the arrival of European explorers in the 1840s, and the construction of a Chicago & North Western rail line soon solidified the region's role as a recreation and leisure destination. Visitors have long been drawn to the area's distinctive quartzite formations and dramatic overlooks. Today, millions travel to DLSP each year to enjoy its camping, swimming, boating, hiking, and other natural amenities.

Organized rock climbing has been present at DLSP for over a century, starting perhaps a decade after the park's formation.[2] Climbers in the 1920s and 30s explored and climbed throughout the park but little formal documentation remains. The first efforts to document climbing in DLSP begins with two 1941 guidebooks on the Chicago region: Jack Fralick's unpublished manuscript and William Plumley's guide. Together they established over twenty routes and some potential early historical information on the climbing community. Early involvement by the Chicago Mountaineering Club increased routes through the 1950s and 60s. As many climbing areas were influenced by sport climbing in the 80s, Devil's Lake climbing culture (partly influenced by Devil's Lake Fukness Association) crafted Devil's Lake into a trad destination. Today, DLSP includes over 3,000 routes including numerous bouldering opportunities. It is consistently considered the best climbing area in the Midwest.

Survey Instrument

Surveys were collected between March 28, 2025 and October 30, 2025 using Question Pro. Surveys were delivered online via social media and listservs, including those of Access Fund and the WCA. In all, 609 responses were recorded with 410 fully completing the survey an additional 199 completing the majority of the survey. Note survey responses are included up to the moment the survey is completed or discontinued. Currently, no study has established the population size for climbers at DLSP, so this sample is best treated as a convenience sample which is common to outdoor recreation

[1] Wilkes, Nick. ND. A Brief Human History of Devil's Lake State Park. Available at: https://www.devilslakeclimbingguides.com/blog/history-of-devils-lake-state-park

[2] Swartling, Sven Olof and Peter Mayer. 2008. Climber's Guide to Devil's Lake. 3rd. University of Wisconsin Press: Madison, WI.

economic impact analyses. As a comparison point, 382 surveys would be required to meet a confidence level of 95% and a 5% margin of error for a population of 50,000 individuals.

The survey included several categories of questions to establish new knowledge about rock climbing in DLSP. These include use patterns, climber background information, lodging use patterns, expenditure patterns, demographics, non-climber use patterns, and WCA interactions. (An optional survey on Leave No Trace knowledge linked to this study is described in a standalone, separate report available upon request from the WCA). Expenditure category questions are further delineated among expenditures inside Sauk County (where DLSP is located) and beyond Sauk but still in Wisconsin. This is explored further in the discussion of study areas and expenditure patterns later in this report. All survey questions are further described in the analysis and the full survey is available upon request.

Data Cleaning

After completing data collection, anonymous survey responses were downloaded and stored in Excel for cleaning. Cleaning included transitioning word responses into numbers ("seven" into "7"), restating numeric ranges into the first digit listed ("30-35" into "30"), and recoding select categorical measures as dichotomous measures (where the presence of a category equals 1 and the absence equals 0) for further analysis.

In preparation for economic impact analyses, additional cleaning was conducted to ensure conservative expenditure estimates. First, the authors utilized National Park Service visitor segment methods to create two categories of visitor: day users and overnight users.[3] Visitor segmentation provides a clearer understanding of expenditures by categorizing different types of visitors, such as day visitors versus overnight visitors.[4] Day users are described as climbing visitors who report no lodging expenditures and indicate they did not stay the night on their most recent trip. Overnight users are described as climbing visitors who report staying overnight in a campground or hotel during their trip and also do not live in Sauk County.[5]

Next, the researchers identified cases at risk of being points of influence on the means through three methodologies. First, the analyst examined data points for unusual entries. Examples could include reports of spending $5000 on fast food on a one-day visit or reporting spending $1000 on every expenditure category. Using this approach, two cases were excluded from the analysis to ensure conservative estimates. Next, the authors utilized United States Forest Service methods of excluding atypical group sizes (identified as groups of 8 or more, n=7) and visitation periods (31 or more days, n=3).[6] Expenditures were then adjusted for spending group size based on the language of the survey

[3] Thomas, Catherine Cullinane, Egan Cornachione, Lynne Koontz, and Christopher Keys. 2019. National Park Service Socioeconomic Monitoring Pilot Survey Visitor Spending Analysis. USGS Report 37.

[4] Flyr, Matthew and Lynne Koontz. 2023. National Park Visitor Spending Effects: Economic Contributions to Local Communities, States, and the Nation. Science Report NPS/SR 1-68.

[5] NPS studies also support having visitor segments focused on local residents. However, very few (less than 2%) of survey responses came from persons living inside the study area. As such, this was not possible for this study and local residents were treated as day visitors in the models.

[6] White, Eric. M. 2017. Spending patterns of outdoor recreation visitors to national forests (Gen. Tech. Rep. PNW-GTR-961). U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station.

to establish means and standard deviations. The researchers then utilized the deviation approach to identify cases which are abnormally high above the mean value.[7] This approach removes cases higher than three deviations above the mean value and then recalculates the means. These results are summarized in later tables and the number of cases (n) is reported for each mean to indicate changes in cases using this approach. Note that zero values are not impacted by this approach and are included based on USFS and NPS approaches.

IMPLAN Methods

This study utilizes IMPLAN to model economic impact estimates based on visitation/use patterns and mean expenditure patterns. IMPLAN (which stands for IMpacts for PLANning) was created in the 1970s by the United States Forest Service in partnership with the Federal Emergency Management Agency. IMPLAN (and its forest planning-focused sibling FORPLAN) was designed to model the economic impacts of USFS efforts such as timber harvests using input-output models. These models examine how an economic event (input) creates changes (output) in a particular economy. IMPLAN today stands as a leading economic impact estimation tool.

IMPLAN analyses begin by defining a study area, which establishes the geographic boundaries within which economic changes are measured. For this study, researchers used two study areas: Sauk County and the remainder of the State of Wisconsin. Sauk County contains DLSP and encompasses the retailers, restaurants, and services that climbers are most likely to use during their visits. The second study area, the rest of Wisconsin, captures climber expenditures that occur outside Sauk County. These two areas are linked through a Multi-Regional Input-Output (MRIO) model, an appropriate framework for this analysis. Using MRIO here allows all climber spending within Sauk County to be modeled in the primary study area while tracking (rather than losing) the resulting leakages into the secondary area. Leakages occur when businesses or residents purchase goods and services that are not available within the initial study area.

As part of the economic impact analysis, survey expenditure categories must be translated into industry categories that IMPLAN understands. IMPLAN includes 528 industry categories which correspond with all current NAICS (North American Industry Classification System) codes. These codes are aggregated into IMPLAN industries which are updated periodically to redefine existing classifications and add new NAICS activities into IMPLAN. Appendix A includes a list of industries linked to the expenditure patterns in the survey. These categories follow approaches used in comparable studies.[8,9] Following NPS best practices, note that retail purchases are modeled at one-fifth of their value as a retail purchase (example: climbing gear) could ostensibly be used again beyond the study area.

---

[7] Maples, James, Michael Bradley, Sadie Giles, Rhiannon Leebrick, and Brian Clark 2019. Climbing out of coal country: The economic impact of rock climbing in West Virginia's New River Gorge. Journal of Appalachian Studies 25(2), 184–201.

[8] Bradley, Michael J. and James N. Maples. 2025. Economic Impact of Rock Climbing in Newton County, Arkansas. Journal of Business Administration Online 19(1): 61-75.

9 Bradley, Michael J. and James N. Maples. 2024. The Economic Impact of Climbing in the Lander Area of Wyoming. Journal of Outdoor Recreation, Education, & Leadership 16(3): 64-77.

Interpreting IMPLAN Results

Economic impact results in IMPLAN are interpreted at three impact levels: direct, indirect, and induced. Direct expenditures model the expenditures created by the event being studied, here the spending patterns of rock climbers at DLSP. Indirect impacts represent business to business expenditures resulting from direct impacts. Induced impacts represent household expenditures supported through labor income.

As an easy example, let's examine a rock climber purchasing pizza from a restaurant in Sauk County. The cost of the pizza ($10) represents a direct impact on Sauk's economy. That purchase and addition of $10 in this economy supports this pizzeria to purchase pizza supplies from other vendors, obtain services such as someone perform maintenance on their pizza ovens, and pay the property lease. These are all examples of indirect impacts. Employees (from the pizzeria, the vendors, the oven repair service, and leasing company, to name a few) now take their paychecks home and spend those on local goods and services. These household expenditures are induced impacts. These cycles continue until all funds leak out of a model's study area(s).

Economic impact results also include four typologies: jobs, labor income, value added, and output. Jobs include full and part-time jobs as well as proprietor and temporary jobs. This measure functions as a headcount of jobs impacted with full-time jobs equaling 1 job and part-time jobs representing a percentage of a job. For example, a temporary job lasting six months and being fully dedicated to the expenditures modeled in the study would equal .5 jobs. (Note that IMPLAN jobs are different than full-time equivalent or FTE jobs, which examine hours worked rather than job duration over a year.) Labor income is a measure of employee compensation (wage and salary costs, with benefits) and proprietor income (both self-employed and business owners). Value added (which includes labor income) is a measure of the contribution of the activity being studied to the study area's GDP (the total value of goods and services produced in a year). Finally, output includes both labor income and value added as well as intermediate inputs (costs of conducting a business) and in this study can be treated as total sales.

Analysis

DLSP Use Patterns

Table 1 begins the analysis by describing what type of parking permit respondents used to enter Devil's Lake State Park (DLSP) on their most recent trip. The majority of respondents either used the annual in-state pass (45%) or the annual out-of-state pass (34%). Day passes were less common at 11% of respondents using this option, while a small contingent of military members (5%) used an interagency military pass. Note that 3% reported not paying park admission fees. This could be for several reasons, but the most likely answer is that they were riding in a vehicle with another person who used their parking permit.

Climber Background Information

Table 2 provides detail on respondents' prior climbing experiences and background as well as their home address location in relation to DLSP. First, the majority of climbers began their climbing

experiences indoors, such as at a gym (60%) while about one in five respondents began climbing outdoors. Next, most came to climbing through an informal route, such as an introduction by a friend or exposure to climbing on social media (75%). Finally, nearly all respondents (98%) indicated they lived outside of Sauk County, Wisconsin.

Table 1. Park Visitor Admission Fee Type		
How did you pay your park admission for your most recent trip to Devil's Lake State Park? (n=577)		
Parking Variable	n	%
Annual In-State Sticker Pass	260	45.06%
Annual Out-of-State Sticker Pass	200	34.66%
Interagency/Military Annual Pass	32	5.55%
Day Pass	67	11.61%
I did not pay park admission fees	18	3.12%

Table 2. Climber Background Information		
Which of the following statements best describes your experiences as a climber? (n=549)		
Statement	n	%
I would say I first started climbing indoors.	333	60.66%
I would say I first started climbing outdoors.	116	21.13%
I would say I first started climbing indoors and outdoors about the same time.	100	18.21%
How would you describe your initial introduction to climbing? (n=548)		
Statement	n	%
Formal (for example: course, presentation, guide)	129	23.54%
Informal (for example: friends, social media)	414	75.55%
I'm not sure	5	0.91%
Which of the following responses best matches where you live for the majority of the year? (n=550)		
Statement	n	%
My primary residence is in Sauk County, Wisconsin.	8	1.45%
My primary residence is outside of Sauk County, Wisconsin.	539	98.00%
I'm not sure or I don't recall.	3	0.55%

DLSP Climbing Use Patterns on Their Most Recent Trip

Table 3 summarizes several categorical survey questions which establish respondents' most recent climbing experience in DLSP. The bulk of the sample (77%) indicated their most recent trip occurred the year of the survey (2025). Another 19% last climbed there in 2023 or 2024. Next, respondents overwhelmingly indicated climbing was their main reason for visiting DLSP (95%). However, only about one in ten indicated this most recent trip was their *first* trip to DLSP, hinting that this location may have a high rate of returning visitors. When asked about what kinds of climbing they participated in at DLSP (check all that apply), top-roping (at 47%) and trad (at 28%) were the most common responses. About one in five also reported bouldering in DLSP. This finding is notable in the climbing literature as this is the first study in recent history where top-roping was a common activity in comparison to other categories.

Table 4 extends the examination of use patterns across several continuous measures in the survey. On average, responses indicated they spend 14 days climbing outdoors at DLSP. This statistic is slightly skewed by five responses of 100 or more days. When those cases are removed, the mean is closer to 12 days. On average, respondents indicated they have been climbing for around a decade. It is conjecture but this is likely influenced by a higher proportion of trad climbers in the sample, which requires more experience than sport climbing (which is not present at DLSP).

Table 4 also summarizes three important measures pertaining to the respondent's most recent climbing visit to DLPS. First, it establishes the mean group size as 7.41. Note this figure is broadly inclusive and not limited to travelling in the same vehicle or attached to payments. Next, the results establish the average paid group as 1.82 persons, which is in line with past economic impact research on climbing. Finally, this table establishes that the average visit length for respondents is five days when inclusive of atypically long visits over a month, and two days when limiting stays to 30 days or less. This second mean of two days remains stable even when limiting the max visit to one week, which accounts for nearly the entire sample.

Table 3. Climbing Use Patterns, Categorical Responses		
Which of the following best describes your most recent climbing trip to DLSP? (n=543)		
Statement	n	%
I last climbed at Devil's Lake in 2025.	419	77.16%
I last climbed at Devil's Lake in 2023 or 2024.	104	19.16%
I last climbed at Devil's Lake from 2020 to 2022.	10	1.84%
I last climbed at Devil's Lake from 2010 to 2019	4	0.74%
I last climbed at Devil's Lake prior to 2009.	1	0.18%
I have never climbed at Devil's Lake.	5	0.92%
Would you say that climbing was your main purpose for visiting the Devil's Lake area? (n=541)		
Statement	n	%
Yes, climbing was my main purpose.	519	95.93%
No, climbing was not my main purpose.	21	3.88%
I'm not sure or I don't recall.	1	0.18%
Was this most recent visit your *first* climbing visit at Devil's Lake? (n=538)		
Statement	n	%
Yes, this was my first visit here.	60	11.16%
No, this was not my first visit here.	475	88.29%
I'm not sure or I don't recall.	3	0.56%
Which of the following best describe(s) your recent climbing interests when visiting Devil's Lake State Park? (n=538) *select all that apply		
Statement	n	%
Trad climbing	244	28.44%
Ice climbing	19	2.21%
Bouldering	164	19.11%
Top-roping	406	47.32%
Another type of climbing not listed	25	2.91%

Table 4. DLSP Use Patterns, Continuous Measures					
Variable	n	Mean	St Dev	Min	Max
In a typical year, how many days do you spend climbing outdoors (any kind) at Devil's Lake State Park?	541	14.35	22.20	0	365
In a typical year, how many days do you spend climbing outdoors (any kind) at Devil's Lake State Park? *cases>=100 days removed	536	12.87	12.65	0	75
Approximately how many years have you been climbing?	549	9.94	10.10	0	62
Considering your most recent climbing trip at Devil's Lake, how many people were in your climbing group?	526	7.41	14.12	0	200
Including yourself, how many people were you paying for on that trip?	527	1.82	2.12	1	35
How many nights did you spend in the area during that most recent visit?	328	5.02	30.34	1	365
How many nights did you spend in the area during that most recent visit? *Excluding stays over 30 days	325	2.20	1.98	1	30

Lodging Use Patterns

Table 5 examines lodging patterns for respondents. In all, 60% of respondents indicated their most recent trip included an overnight stay. The most popular option is camping, which describes 79% of respondents. Note that camping options at DLSP and in Sauk County include both camping in state park camping areas and staying outside of DLPS in privately owned campgrounds. This is explored further in the economic impact analysis.

Visitation Patterns

Visitation estimates for this study were provided by Wisconsin Climbers Association and were constructed using parking lot counts over an entire climbing season, as well as in-depth review of use patterns at climbing focused lots and feedback from long-term climbers from the area. In all, they estimated ~27,000 climbing-focused visits occur every year.

Table 5. Climber Overnight Lodging		
On your most recent visit to Devil's Lake to climb, did your visit include at least one overnight stay? (n=530)		
Statement	n	%
Yes, I stayed overnight.	320	60.38%
No, I did not stay overnight.	210	39.62%
Which best describes your lodging options for the majority of your stay on your most recent visit? (n=318)		
Statement	n	%
I camped in a tent, van, camper, or similar option.	252	79.25%
I stayed in a hotel or motel.	42	13.21%
I stayed in a rental house, rental cabin, or similar option.	16	4.72%
I stayed in some other kind of lodging.	9	2.83%

Expenditure Patterns

Appendix B through Appendix E describe the expenditure patterns utilized in the economic impact models. As outlined in the methodology section, this study had sufficient survey responses to create two visitor segments: day users and overnight users. Each has their own spending pattern which will be modeled in the economic impact portion of the study. The survey included common expenditure questions (broadly focused on lodging, food, travel, retail, and services) across two study areas: Sauk County (where DLSP is located) and beyond Sauk County but still in Wisconsin. This allows the researchers to model both expenditures inside DLSP and the immediate surrounding area while also analyzing expenditures created while travelling to and from DLSP. The tables include three measures to demonstrate how the means change as specific cases are excluded. The second adjusted means are used in the economic impact models except for lodging, which uses the third adjusted means only applied to cases using that expenditure type.

Appendix C summarizes day user expenditures in Sauk County as a result of climbing visits to DLSP. Here, the largest expenditures are gasoline ($11 per visit) and dine-in restaurants ($7 per visit). In all, a day visit (with no reported overnight stay) generates around $40 in expenditures per visit inside Sauk County. Appendix D expands this analysis to expenditures beyond Sauk County, but still in Wisconsin, and remarkably expenditures are quite minimal aside from gasoline ($10). This indicates that most day users are likely coming from a reasonably close visit (something confirmed further by a quick cross tabs, indicating most day users utilized an in-state parking pass).

Appendix Dand Appendix E summarize overnight visit expenditures reported by respondents who stayed at least one night in the Devil's Lake area before returning home. Overnight lodging included camping, hotel or motel stays, rental cabins, and other no-cost lodging options. Camping represented the most common lodging choice, with comparable per-visit spending between private camping or RV use at $43 and camping within Devil's Lake State Park at $34, excluding zero responses for comparison. Hotel and rental cabin use averaged $128 per visit but was used by a smaller share of overnight visitors.

Beyond lodging, overnight climbers spent substantial amounts in Sauk County on food, fuel, and services, including dine-in restaurants at $17 per visit, gasoline at $16, and bars or breweries at $9. Climbing guide services represented the highest single non-lodging expenditure for this visitor segment at $31 per visit. In total, overnight climbers spent approximately $100 per visit in Sauk County before lodging as a result of their climbing trips. Expenditures occurring outside of Sauk County but still within Wisconsin were notably lower. For these overnight visitors, gasoline represented the primary expense at approximately $12 per visit. Lodging beyond Sauk County was reported infrequently, and when it did occur, it most often involved hotel or rental cabin stays averaging $87 per visit.

Economic Impacts

Table 6 utilizes mean expenditure patterns and visitation estimates to model how rock climbing expenditures create economic impacts in Sauk County (study area one) and beyond Sauk but still in Wisconsin (study area two). In summary, this includes $2.9 million in expenditures inside Sauk County and $920K expenditures across the remainder of the state. When modeled in IMPLAN, annual climber expenditures support an estimated 32 jobs in Wisconsin (largely concentrated in Sauk County) and $1.5 million in wages. Jobs supported are largely in the tourism and service industries. Climbers also supported $2.6 million in GDP growth and $4.6 million in total output. GDP growth measures the new economic value created, not just total spending.

Table 7 adapts the economic impacts from Table 6 into multipliers. Multipliers provide a straightforward approach to describing how ideas like job growth and output (sales) create additional effects in the study areas. For example, for each dollar in sales created as a result of climbing expenditures in Sauk County and Wisconsin as a result of climbing in DLSP, an additional $0.65 cents in sales are generated throughout Wisconsin. Each dollar in climber-related sales supports an additional $.44 cents in sales for other businesses in Sauk County.

Changes in Visitation and Expenditures

Visitation estimates remain, at best, estimations at a moment in time and can be impacted by everything from seasonal temperatures to issues with access at a particular climbing destination. As part of this study, the researchers created linear estimates of how changes in visitation levels (both positive and negative) would alter total expenditure patterns. These estimates are presented in Appendix F. Note these patterns are linear based on survey results from the present study and do not attempt to measure how changes in visitation may alter business availability and use patterns over time. For example, an increase in climbing visits could lead to additional local businesses opening and/or changing goods and services to better align with climber interests, whereas efforts to reduce climbing visits could hamper another businesses' ability to stay open.

Expenditures at Quartzite Classic

The Quartzite Classic is a local climbing festival held annually in DLSP. The festival is hosted by the WCA in partnership with local businesses and organizations. The festival combines education clinics with stewardship sustainability projects to support the longevity of climbing opportunities in the region.

In 2025, this festival attracted 174 attendees to the region as well as 14 vendors, and four local guide services. Based on survey data from the present study, we estimate Quartzite Classic supported nearly $25,000 in expenditures and will continue to do so each year. This includes $17.1k in non-lodging expenditures and $7.4k in lodging expenditures.

Table 6. Annual Economic Impacts of Rock Climbing				
Combined Study Areas				
Impact	Jobs	Labor Income	Value Added	Output
Direct	23.52	$984,824.66	$1,592,174.21	$2,825,897.97
Indirect	4.21	$297,616.39	$491,073.22	$928,088.77
Induced	4.7	$287,746.84	$555,913.30	$903,347.54
Total	32.43	$1,570,187.89	$2,639,160.72	$4,657,334.28
Inside Sauk County, Wisconsin				
Impact	Jobs	Labor Income	Value Added	Output
Direct	19.33	$826,975.08	$1,286,938.32	$2,308,594.36
Indirect	2.63	$180,230.94	$290,210.76	$550,040.69
Induced	2.52	$162,267.80	$295,099.57	$474,568.68
Total	24.48	$1,169,473.82	$1,872,248.65	$3,333,203.73
Beyond Sauk but Inside Wisconsin				
Impact	Jobs	Labor Income	Value Added	Output
Direct	4.19	$167,849.58	$305,235.88	$517,303.61
Indirect	1.58	$117,385.45	$200,862.46	$378,048.08
Induced	2.18	$135,479.04	$260,813.73	$428,778.86
Total	7.95	$410,714.07	$766,912.07	$1,324,130.55

Table 7. Multipliers, Annual Economic Impacts of Rock Climbing				
Both Study Areas				
Impact	Jobs	Labor Income	Value Added	Output
Direct	1.00	1.00	1.00	1.00
Indirect	0.18	0.30	0.31	0.33
Induced	0.20	0.29	0.35	0.32
Total	1.38	1.59	1.66	1.65
Inside Sauk County, WI				
Impact	Jobs	Labor Income	Value Added	Output
Direct	1.00	1.00	1.00	1.00
Indirect	0.14	0.22	0.23	0.24
Induced	0.13	0.18	0.23	0.21
Total	1.27	1.40	1.45	1.44
Beyond Sauk but Inside Wisconsin				
Impact	Jobs	Labor Income	Value Added	Output
Direct	1.00	1.00	1.00	1.00
Indirect	0.38	0.74	0.66	0.73
Induced	0.52	0.86	0.85	0.83
Total	1.90	2.60	2.51	2.56

Taxation Impacts

Table 8 summarizes taxation results from the prior table at the county, state, and federal taxation levels. Results indicate climber expenditures generate a great deal of tax dollars at the county, state, and federal level. County level taxes here include special district taxes as well as city/county taxes aggregated across the state. In all, climber expenditures here support $121k in county taxes, $169k in state taxes, and $352k in federal taxes.

Table 8. Annual Taxation Impacts Generated by Rock Climbing in DLSP				
Combined Study Areas				
Impact	County	State	Federal	Total
Direct	$84,253.39	$113,017.74	$213,316.50	$410,587.62
Indirect	$13,849.05	$23,298.33	$68,644.07	$105,791.45
Induced	$22,966.43	$32,752.86	$70,111.10	$125,830.38
Total	$121,068.86	$169,068.93	$352,071.67	$642,209.46

Demographics

Table 9 and Table 10 summarize the demographics of respondents in this study. In all 62% of respondents described their biological sex as being male. Nearly 5% of respondents defined their gender as non-binary. As gender has been an underexamined element of climbing studies, this represents a notable and inclusive finding relative to prior climbing studies. In measuring race, the sample also demonstrated a higher level of diversity than most climbing studies with nearly one in ten respondents identifying as Asian and 5% identifying as Latino/Hispanic. Note that respondents could check all racial categories they felt applied to their self-definition of race.

As with previous climbing studies, the sample was overwhelmingly well-educated. Around 43% reported holding a bachelor's degree, while 18% indicated having a master's degree and 14% holding a doctoral degree. Additionally, roughly 9% indicated being in college working on a Bachelor or higher degree at the time of the survey. Concomitant to education outcomes, respondents also reported reasonably higher personal incomes with 32% indicating a six-figure personal income.

As the only continuous demographic variable, age was not presented in the tables. However, respondents' mean age was 35 with a standard deviation either way of about 12 years. Ages ranged from 18-82 (although this was slightly influenced by the survey only being available to those 18 and older).

Table 9. Demographics: Sex, Gender, & Race/Ethnicity		
Measure	n	%
What would you say is your sex? (n=451)		
Measure	n	%
Female	160	33.26%
Male	280	62.08%
Another sex not listed.	5	1.11%
I prefer not to answer.	16	3.55%
Which option(s) best describe(s) your gender identity? Select as many as apply. (n=432)		
Measure	n	%
Woman	135	31.25%
Man	255	59.03%
Transgender	4	0.93%
Intersex	0	0.00%
Non-binary	20	4.63%
Prefer not to say	15	3.47%
Another identity	3	0.69%
Which option best describes your race and/or ethnic background? Select as many as apply. (n=467)		
Measure	n	%
American Indian/Alaskan Native	5	1.07%
Asian	46	9.85%
Black or African American	2	0.43%
Latino/Hispanic	24	5.14%
Middle Eastern/North African	7	1.50%
Native Hawaiian/Pacific Islander	3	0.64%
White	358	76.66%
Another race/ethnicity not described	5	1.07%
Prefer not to answer	17	3.64%

Table 10. Demographics: Education & Income		
Which category best represents your highest educational attainment level? (n=455)		
Measure	n	%
Less than high school or GED equivalent	1	0.22%
Completed high school or GED, no college	12	2.64%
Completed some college, but no degree/not enrolled	20	4.40%
Completed two-year Associate's or technical degree	29	6.37%
Currently enrolled in college and working on a Bachelor's	24	5.27%
Completed Bachelor's degree	196	43.08%
Currently in graduate school and working on Master's	12	2.64%
Completed Master's degree	85	18.68%
Currently in graduate school and working on Doctorate	6	1.32%
Completed Doctorate or other terminal professional degree	65	14.29%
Prefer not to answer	5	1.10%
Which category best represents your personal annual income before taxes? (n=453)		
Measure	n	%
$0-$19,999	24	5.30%
$20,000-$29,999	13	2.87%
$30,000-$49,999	40	8.83%
$50,000-$74,999	104	22.96%
$75,000-$99,999	96	21.19%
Greater than $99,999	149	32.89%
Prefer not to answer	27	5.96%
Table Note: Personal annual income counts only your annual income, not other incomes in your household.		

Non-Climbing Use Patterns

Table 11 creates new knowledge on the DLSP climbing community and their *non*-climbing uses of DLSP. It is common for climbers to engage in other kinds of behaviors in climbing areas, such as hiking and swimming. For this location, day hiking (33%) was a common activity, as was swimming (25%) and backpacking (14%). Note each of these uses engage important natural features at DLSP, namely the lake itself, the established trails, and the prevalence of backpacking opportunities nearby (such as the Ice Age Trail). Table 12 expands further on non-climbing use by examining rest day behaviors. Rest days occur on multi-day trips (or day trips for nearby climbers) who are taking a day or more off from climbing to rest and recover but still want activities to fill their non-climbing time. This is a relatively understudied phenomenon among climbing research. Thus, this study is creating new knowledge about DLSP but also climbers in general.

Responses covered a wide array of activities available in DLSP, but the most common responses focused on two categories: hiking and local businesses/services. Hiking was certainly popular with 8% indicating use of Ice Age Trail for backpacking or backpacking in general. Visiting local businesses (particularly food-related businesses) presented the second cluster. In all 16% of respondents indicated visiting restaurants while 10% visited breweries. Likewise, 9% visited Ski-Hi, a local fruit

vendor. This exciting result supports the idea indicating climbers are locavores interested in regional foods, goods, and experiences attached to the climbing areas they value and hold dear.

Table 11. Non-Climbing Use Patterns by Climbers		
On a typical trip to go climbing to Devil's Lake, in what other outdoor recreation activities do you often engage? Please check all that apply.		
Measure	n	%
Day hiking	309	33.05%
Swimming	239	25.56%
Backpacking or hiking	132	14.12%
Kayaking	69	7.38%
Road, trail, or cross country running	57	6.10%
Another activity not listed	43	4.60%
Canoeing	26	2.78%
Mountain biking	25	2.67%
Road cycling	18	1.93%
Gravel riding	11	1.18%
Scuba Diving	6	0.64%

Table 12. Non-climbing Rest Day Use Patterns by Climbers		
Please check any of the following activities you have done while climbing at Devil's Lake and taking a rest day. Please check all that apply.		
Measure	n	%
Visit Ski-Hi	176	9.49%
Backpacking or hiking	162	8.73%
Hike the Ice Age Trail	152	8.19%
Visit Wisconsin Dells	96	5.18%
Paddling, any type	86	4.64%
Running, any type	79	4.26%
Kayak or canoe rentals	74	3.99%
Visit Mirror Lake State Park	68	3.67%
Apple picking	48	2.59%
Visiting nature Centers	47	2.53%
Mountain biking or cycling, any type	45	2.43%
Visiting the movie theater	19	1.02%
Disc golf	19	1.02%
Cave tours	17	0.92%
Bowling	7	0.38%
Horseback riding	6	0.32%
Ziplines	6	0.32%
Golf	6	0.32%
Visit Ho-Chunk Casino	6	0.32%
Visit the Big Cat Rescue	3	0.16%
ATV rental	2	0.11%
Axe throwing	2	0.11%

WCA Participation

Table 13 completes the study by asking respondents about their engagement in WCA events. In all, 21% indicated they have attended a Wisconsin Climbers Association volunteer event. In comparison, 34% had attended a WCA climbing event.

Table 13. Wisconsin Climbers Association Participation		
Attended a Wisconsin Climbers Association volunteer event		
Measure	n	%
Yes, I have done this.	104	21.76%
No, I have not done this.	374	78.24%
Attended a Wisconsin Climbers Association climbing event		
Measure	n	%
Yes, I have done this.	166	34.73%
No, I have not done this.	312	65.27%

Appendices

Appendix A. IMPLAN Category/Survey Instrument Bridge 21
Appendix B. Day User Summary Expenditures in Sauk County 22
Appendix C. Day User Summary Expenditures beyond Sauk County but still in Wisconsin 23
Appendix D. Overnight User Summary Expenditures in Sauk County 24
Appendix E. Overnight User Summary Expenditures beyond Sauk County but still in Wisconsin 25
Appendix F. Linear Expenditure Estimates Based on Changes in Visitation 26
Appendix G. Social Media Release for Twitter 27
Appendix H. Social Media Release for Facebook 28
Appendix I. Social Media Release for Instagram 29
Appendix J: Press Release 30

Appendix A. IMPLAN Category/Survey Instrument Bridge		
Survey Spending Category (Abbreviated)	IMPLAN Category (2026)	Brief IMPLAN Category Description
Park concessions	493	All other food and drinking places
Firewood kiosks	395	Retail, miscellaneous store retailers
Dine-in restaurants	491	Full-service restaurants
Bars and breweries	493	All other food and drinking places
Fast-food restaurants	492	Limited-service restaurants
Groceries	389	Retail, food, and beverage stores
Convenience store food/drink	391	Retail, gasoline stores
Gasoline purchases	391	Retail, gasoline stores
Climbing gear purchases	393	Retail, sporting goods
Other non-food retail	394	Retail, general merchandise
Climbing guide services	464	Other education services
Hotel/cabin lodging	489	Hotels and motels
Camping, private	490	Other accommodations
Camping, DLSP	490	Other accommodations

Appendix B. Day User Summary Expenditures in Sauk County				
Expenditure	Adjusted (n=185)	Initial St Dev	Adjusted (n)	Excluding Zeros Mean + Range (n)
Park concessions	$0.93	4.56	$0.43 (n=181)	$8.75 $0.83-$16 (n=9)
Firewood kiosks	$0.18	1.57	$0.01 (n=182)	$3.33 NA (n=1)
Dine-in restaurants	$8.85	18.42	$7.46 (n=182)	$29.52 $6.25-$70 (n=46)
Bars and breweries	$5.94	16.87	$5.43 (n=184)	$29.39 $3.33-$100 (n=34)
Fast-food restaurants	$2.77	7.93	$1.76 (n=180)	$12.24 $1.67-$30 (n=26)
Groceries	$1.76	7.51	$0.80 (n=181)	$14.53 $5-$25 (n=10)
Convenience store food/drink	$5.21	9.74	$4.30 (n=181)	$12.17 $1.66-$35 (n=64)
Gasoline purchases	$12.36	18.46	$11.91 (n=184)	$29.22 $5-$70 (n=75)
Climbing gear purchases	$6.68	47.41	$1.83 (n=183)	$27.98 $10-$50 (n=12)
Other non-food retail	$1.10	8.73	$0.23 (n=183)	$14.58 $10-$18.75 (n=3)
Climbing guide services	$19.95	80.62	$6.37 (n=179)	$103.71 $22.50-$175 (n=11)
Total (typical day visit per visitor)	$65.73	NA	$40.53	NA
Column Note	White (2017)		Maples et al (2019)	For Reference Only
Table Notes: Adjusted by expenditure group size, no expenditures reported: airfare, taxi services, and rental climbing gear				

Appendix C. Day User Summary Expenditures beyond Sauk County but still in Wisconsin				
Expenditure	Adjusted (n=185)	Initial St Dev	Adjusted (n)	Excluding Zeros Mean + Range (n)
Dine-in restaurants	$4.25	17.88	$2.05 (n=181)	$37.28 $10-$50 (n=10)
Bars and breweries	$1.02	8.42	$0.21 (n=183)	$13.33 $5-$25 (n=3)
Fast-food restaurants	$1.57	5.02	$0.68 (n=177)	$10.09 $3.50-$16.67 (n=12)
Groceries	$2.96	9.78	$1.87 (n=181)	$19.95 $1.66-$40 (n=17)
Convenience store food/drink	$2.22	9.11	$1.43 (n=183)	$11.92 $4-$25 (n=22)
Gasoline purchases	$11.61	27.18	$10.04 (n=184)	$29.33 $1.67-$70 (n=63)
Climbing gear purchases	$19.90	186.86	$6.42 (n=184)	$131.38 $10-$300 (n=9)
Other non-food retail	$5.98	73.84	$0.58 (n=184)	$53.75 $7.50-$100 (n=2)
Rental climbing gear	$0.04	0.58	$0.00 (n=184)	$0.00 NA (n=0)
Climbing guide services	$0.94	12.86	$0.00 (n=184)	$0.00 NA (n=0)
Total (typical day visit per visitor)	$50.49	NA	$23.28	NA
Column Note	White (2017)		Maples et al (2019)	For Reference Only
Table Notes: Adjusted by expenditure group size, no expenditures reported: airfare and taxi services				

Appendix D. Overnight User Summary Expenditures in Sauk County				
Expenditure	Adjusted (n=185)	Initial St Dev	Adjusted (n)	Excluding Zeros Mean + Range (n)
Hotel or motel/rental cabin	$37.74	102.04	$26.59 (n=269)	$128.54 $25-300 (n=55)
Private camping/RV	$14.25	36.32	$12.14 (n=273)	$43.06 $6.67-$110 (n=77)
DLSP camping	$11.18	28.91	$7.44 (n=267)	$34.26 $2.50-$93.50 (n=58)
Park concessions	$4.89	11.57	$2.96 (n=264)	$12.81 $1.25-$33.33 (n=61)
Firewood kiosks	$2.31	7.70	$1.95 (n=274)	$9.91 $2-$35 (n=54)
Dine-in restaurants	$22.02	36.54	$17.03 (n=266)	$39.39 $3.50-$100 (n=116)
Bars and breweries	$12.16	38.14	$9.16 (n=272)	$34.63 $5-$100 (n=72)
Fast-food restaurants	$3.91	8.26	$3.02 (n=268)	$13.75 $4-$25 (n=59)
Groceries	$10.65	25.89	$7.96 (n=270)	$26.21 $4.28-$60 (n=82)
Convenience store food/drink	$4.93	11.02	$3.50 (n=267)	$12.48 $0.83-$37.50 (n=75)
Gasoline purchases	$17.66	24.87	$16.00 (n=271)	$33.88 $16.33-$80 (n=128)
Climbing gear purchases	$5.33	34.23	$2.99 (n=273)	$43.06 (n=19) $7.50-$100
Other non-food retail	$3.70	16.54	$2.52 (n=272)	$22.13 $13.63-$50 (n=31)
Climbing guide services	$46.70	113.24	$31.63 (n=266)	$168.75 $2.50-$350 (n=53)
Total (typical day visit per visitor)	$134.25	NA	$98.72	NA
Column Note	White (2017)		Maples et al (2019)	For Reference Only
Table Notes: No expenditures reported: airfare, taxi services, and rental climbing gear; ignores lodging cases less than $25				

Appendix E. Overnight User Summary Expenditures beyond Sauk County but still in Wisconsin				
Expenditure	Adjusted (n=185)	Initial St Dev	Adjusted (n)	Excluding Zeros Mean + Range (n)
Hotel or motel/rental cabin	$13.81	62.81	$8.44 (n=272)	$87.11 $30-200 (n=26)
Private camping/RV	$1.16	12.66	$0.24 (n=273)	$22.50 $12.50-$30 (n=3)
Dine-in restaurants	$7.06	20.68	$4.16 (n=267)	$30.90 $10-$62.50 (n=36)
Bars and breweries	$3.43	31.95	$0.80 (n=272)	$27.39 $12.50-$60 (n=8)
Fast-food restaurants	$3.81	8.47	$2.85 (n=267)	$14.68 $3.50-$30 (n=52)
Groceries	$4.21	16.96	$2.04 (n=269)	$23.92 $5-$50 (n=23)
Convenience store food/drink	$2.99	8.97	$1.77 (n=267)	$13.53 $2.50-$30 (n=35)
Gasoline purchases	$12.98	23.96	$12.05 (n=274)	$32.70 $2.86-$80 (n=101)
Climbing gear purchases	$2.70	17.64	$0.26 (n=269)	$23.33 $16-$30 (n=3)
Other non-food retail	$1.21	10.13	$0.45 (n=273)	$20.83 $16-$25 (n=6)
Climbing gear rental	$0.30	3.91	$0.00 (n=273)	$0.00 NA (n=0)
Climbing guide services	$2.25	28.16	$0.91 (n=273)	$25.00 NA (n=1)
Total (typical day visit per visitor)	$40.94	NA	$25.29	NA
Column Note	White (2017)		Maples et al (2019)	For Reference Only
Table Notes: No expenditures reported: airfare and taxi services; lodging cases less than $25				

Appendix F. Linear Expenditure Estimates Based on Changes in Visitation						
	$ Per Visit	**15,000**	**30,000**	**40,000**	**60,000**	**100,000**
Day Users	$63	$382,860	$765,720	$1,020,900	$1,531,440	$2,552,400
Overnight Users Non-Lodging	$124	$1,116,090	$2,232,180	$2,976,240	$4,464,360	$7,440,600
Hotels	$128	$208,235	$416,470	$555,293	$832,939	$1,388,323
Private Camping	$43	$165,325	$330,649	$440,866	$661,298	$1,102,164
DLSP Camping	$34	$112,051	$224,102	$298,802	$448,203	$747,005
Hotel Use Beyond Sauk County	$87	$141,118	$282,236	$376,315	$564,473	$940,788
Total Spent		$2,125,678	$4,251,357	$5,668,476	$8,502,713	$14,171,189