Dear Mrs. Constance Cummings, 12/8/21

I am submitting this comment on the proposed Lutsen Mountain Expansion Project, on behalf of Superior Highland Backcountry (SHB), as it relates to our mission, purpose, and the interests of our membership and user group. Our mission is "To preserve and expand backcountry skiing opportunities along the highlands of Lake Superior." I have organized our comment into sections for your convenience.

Introduction

On page 76 of the DEIS, it is stated that SHB had "an email newsletter subscription list of approximately 300 people, a total of 30 paying members, and active board of 5 members with two additional volunteers, and a volunteer roster of more than 60 people", as reported at the time of the scoping comment period, in May of 2020. At the time of this writing, our email newsletter has increased to 382 people, and our paying members have increased to 119. This represents an increase of almost 300% over a period of 18 months, and is indicative of how much support there is, state-wide and regionally, for our mission. It is also a microcosm of the steep overall growth trend of backcountry skiing across the country.

When one researches the topic of growth in backcountry skiing, there is a vast array of articles, studies and references that confirm this trend, which build from about 2015 on. The factors that are affecting this trend are largely demographic, involving the younger generation looking for a more diverse set of experiences, exploratory activities, and finding that backcountry activities are more accessible for a wider income bracket of people. These trends are widely projected to continue, and we expect to see continued support for our organization, and an increase in backcountry skiing on the North Shore, including Moose Mountain, as we develop our permitted, gladed Backcountry Ski Areas. The first of these, Finland Glades, has been completed and will be open for use this season.

1. Requested Action

Both Alternative 2 and Alternative 3 would result in an irreversible and irretrievable commitment of the unique terrain on Moose Mountain. The upper half of the southern face of Moose Mountain consists of "Sugar Maple Forest", as cataloged in Table 3.7-4., on pg. 163 of the DEIS. This is the most ideal intact forest type that we have found in our exploration of backcountry ski terrain on the North Shore, due to the near-complete canopy that the forest develops when it reaches maturity. This canopy limits undergrowth, making the area ski-able with very little amendment. Use of less ideal forest types for backcountry skiing involves regular maintenance, including clearing of brush and saplings, as well as the development and implementation of a forest treatment plan that expedites the achievement of a full canopy. Due to the time span required to regain this forest type after it has undergone clearing, this resource would be irretrievable for our user group.

I am requesting that you either develop an alternative that does not allow traditional cleared ski runs or lift construction on Moose Mountain, or select Alternative A: No Action.

Or, a new alternative could be developed that includes permission to use 66 acres adjacent to Lutsen Mountain's current property for the purpose of sidecountry skiing. This would include 32 acres in a Sugar Maple forest type, which requires very minimal glading, and 34 acres in a more dense conifer forest type, which requires heavy glading or the construction of "braided lines", a glading technique designed to make an area skiable while preserving the integrity of the plant communities that exist there.

No traditional clearing or lift construction would be allowed on this acreage, but glading could be allowed, to improve the ski-ability of the terrain, similar to the runs on the eastern side of Moose,

which are currently maintained as gladed tree skiing. Then, narrow return trails that connect alpine skiers back to the groomed trails could be allowed to be cleared and maintained. A good example of this is the old mountain bike trail, which is at a good angle for traversing the hill on alpine skis. **Figure 1: Map of Minimally Maintained, Lift-Served Acreage Available on Moose Mountain** shows this area. In this figure, the "Caribou Lift Return Line" and the Timberwolf Lift Return Line" represent the lowest trails possible to cut across the hill, that would allow for skiers with alpine equipment to make the traverse back to those respective chairlifts with ease.

This would meet Lutsen Mountain's stated need for minimally maintained lift-served terrain, while not compromising the remaining backcountry acreage on Moose Mountain. Please refer to section 4: Technical Information on Backcountry and Sidecountry Skiing to Supplement the EIS, for details on how this design would meet this need. **Please see Figure 1 for a map detailing this acreage.**

I would also like to request that the SNF consider continuous vertical slope as a limited resource, and consider the interests of the multiple user groups that value it, as a part of any winter special use permitting processes. Here I would like to highlight the USFS' stated Agency Goal: to "Provide a diverse range of quality natural and cultural resource-based recreation opportunities in partnership with people and communities." This is also restated in the Forest Service's 2010 Framework for Sustainable Recreation. I would like to know, does the Forest Service consider all nearby recreational opportunities, whether on private, other public, or SNF land, when evaluating the decision to permit a project, as it relates to providing a diverse range of recreation opportunities? I think that this approach would be appropriate, as the owner/operator of a specific recreational opportunity does not weigh into the user's experience of their access to a diverse range of opportunities. I would request that the SNF use this approach when considering the impact of this project proposal on recreation.

It is my opinion that limited resources that are valued by multiple user groups should be shared in such a way that allows for equal access and use, not impacted by others' use. In this case, LMR and the alpine skiers that constitute their guests are currently able to enjoy the unique and limited resource of Moose Mountain, on the existing resort on LMR property. The remainder of Moose Mountain should be considered as a limited resource which is desirable to backcountry skiers as well as alpine skiers, and the remaining acreage should be retained for backcountry skiers.

There are examples of these kinds of arrangements, specifically regarding winter outdoor recreation, that have been developed all across the country involving public lands. Winter Wildlands Alliance is a resource for bringing different user groups together to negotiate such land-sharing arrangements.

2. Impacts of Alternative 2 and Alternative 3 on SHB and our User Group

While it is true the proposed action on Moose Mountain would directly impact the skiers who currently use the area, there are further significant impacts that were not identified in the DEIS. The long-term vision of Superior Highland Backcountry is to construct a Hut-to-Hut trail system, with the initial terrain that we have identified between Finland and Lutsen. *Hut-to-Hut USA* (Mountaineers Books, 2021) author Sam Demas described the North Shore as the place that deserves a hut-to-hut system the most, of all the places that do not have one.

While there are several desirable locations along this stretch, Moose Mountain overshadows them all. Moose Mountain has almost twice the vertical feet of the next most prominent area and three times the acreage. Combined with the aforementioned mature forest type of the upper half, the consistency of the pitch across the entirety of the mountain, and the rugged terrain available as one approaches the base, these qualities result in a geological feature which is paralleled by none other

across all of Minnesota. Moose Mountain, therefore, is considered the “Crown Jewel” of our developing Hut-to-Hut trail system.

The removal of access to Moose Mountain would have a significant impact on the success of our overall project; including Moose in our Hut-to-Hut system will retain interest and support that we may otherwise lose. This is due to the nature of the experience of the backcountry skier regarding vertical feet, as the experience varies significantly based on the length of the descent available, as well as the total ski-able acreage available on Moose, as larger acreage results in higher skier capacity per snowfall. It should be emphasized that this is irregardless of our securing a permit to glade from the SNF, as I understand that such a proposal is outside the scope of this EIS. Moose Mountain, in its current state, would be a significant component of our Hut-to-Hut system, regardless of an SUP being granted to our organization.

In section 3.1.4 of the DEIS, the cumulative effects on recreation are analyzed. Here, projects that are included in Lutsen Mountain's Master Development Plan but have not yet passed environmental review are given weight and credence, when assessing the cumulative impact of Alternatives 2 and 3. Although I understand that “evaluating a separate SUP application and operator is outside the scope of this EIS” (section A.2.3, para. 2), if the EIS is going to include the possible future economic impacts of Lutsen Mountain's initiatives which have *not yet passed* environmental review, and were in fact actively removed from the original SUP application due to “various resource constraints, including the presence of wetlands and potential for cultural resources” (section A.2.1, para. 3), I believe that the cumulative impacts on recreation need to include the negative impact of the preclusion of a Backcountry or Sidecountry Ski Area as well. **Please refer to Appendix A: Preliminary Economic Impact Study of Moose Glades Backcountry Ski Area** for a summary of these impacts, and weigh them alongside the current cumulative impacts, including the potential positive impacts of Reasonably Foreseeable Future Projects as analyzed in section 3.1.4.

3. Skier Demographics and the Best Use of Public Land

It is worth noting that consideration of a project that will improve recreational opportunities for alpine skiers, while reducing recreational opportunities for backcountry skiers, is not in the best interest of the greatest portion of the public, when backcountry skiing is growing rapidly and alpine skiing is declining, and the trend falls along the demographic of age. **Please see Appendix B for a collection of statistical documents that outline alpine skiing trends along age demographic lines.**

When we analyze the changing consumer habits of the younger generation of skiers, looking forward, we can expect that a growing number of visitors to the SNF would prefer to have Moose Mountain available for backcountry skiing, with the option of cost-free or low-cost use. These trends need to be considered as a part of the EIS, and need to be cross-referenced directly with the USFS' guiding principle of “to provide the greatest good for the greatest number of people in the long run."

Furthermore, preserving Moose Mountain for undeveloped recreation in no way detracts from alpine skiing opportunities along the North Shore. The existing terrain at Lutsen Mountains Resort will continue to serve alpine skiers seeking a resort experience.

4. Technical Information on Backcountry and Sidecountry Skiing to Supplement the EIS

Here I want to offer details in response to several references to our users and our activity, which were made in the DEIS, to improve the accuracy of the document.

In section A.2.4, footnote 1, it is said that sidecountry skiing is backcountry skiing that is accessed by a lift, but that the lift is not used for repeat access. This is not categorically correct, and in the case of Moose Mountain, sidecountry could be designed such that there are one or more points of return to the groomed trail and the chairlift. This would be achieved with the cutting of one or more

minimally wide, angled traverse trails, along with signage that would clearly direct alpine skiers to exit the gladed area at the appropriate place(s). **Please see Figure 1 for a map of the maximum acreage that could serve this purpose if properly designed.**

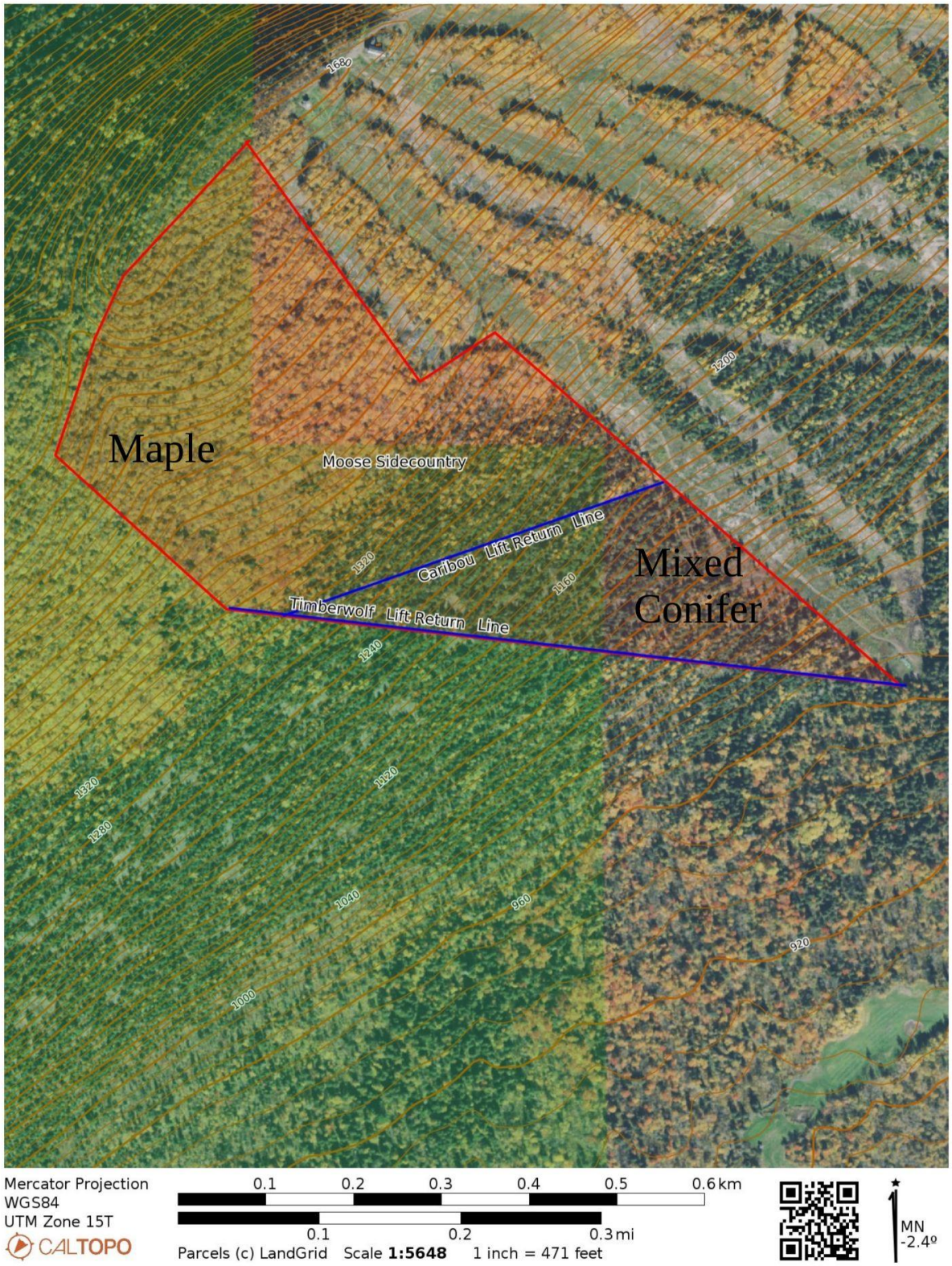
On page 93 of the DEIS, it is stated that the backside of Moose would remain ski-able under Alternative 3. It needs to be understood that the backside of Moose is not normally ski-able in its current state, and would not become more ski-able under Alternative 3. The heavy tree cover combined with the steep pitch and northwest aspect of the north side of Moose make it not ski-able for backcountry skiers without a combination of significant alteration and ideal snowfall.

The same applies to the legacy islands that are incorporated into Alternative 3; due to the forest type that prevails on the lower half of Moose, these areas would not result in significant ski-able terrain for backcountry or expert alpine skiers, without at least minimal thinning, which would not be allowed as it would defeat the purpose of the legacy patch initiative.

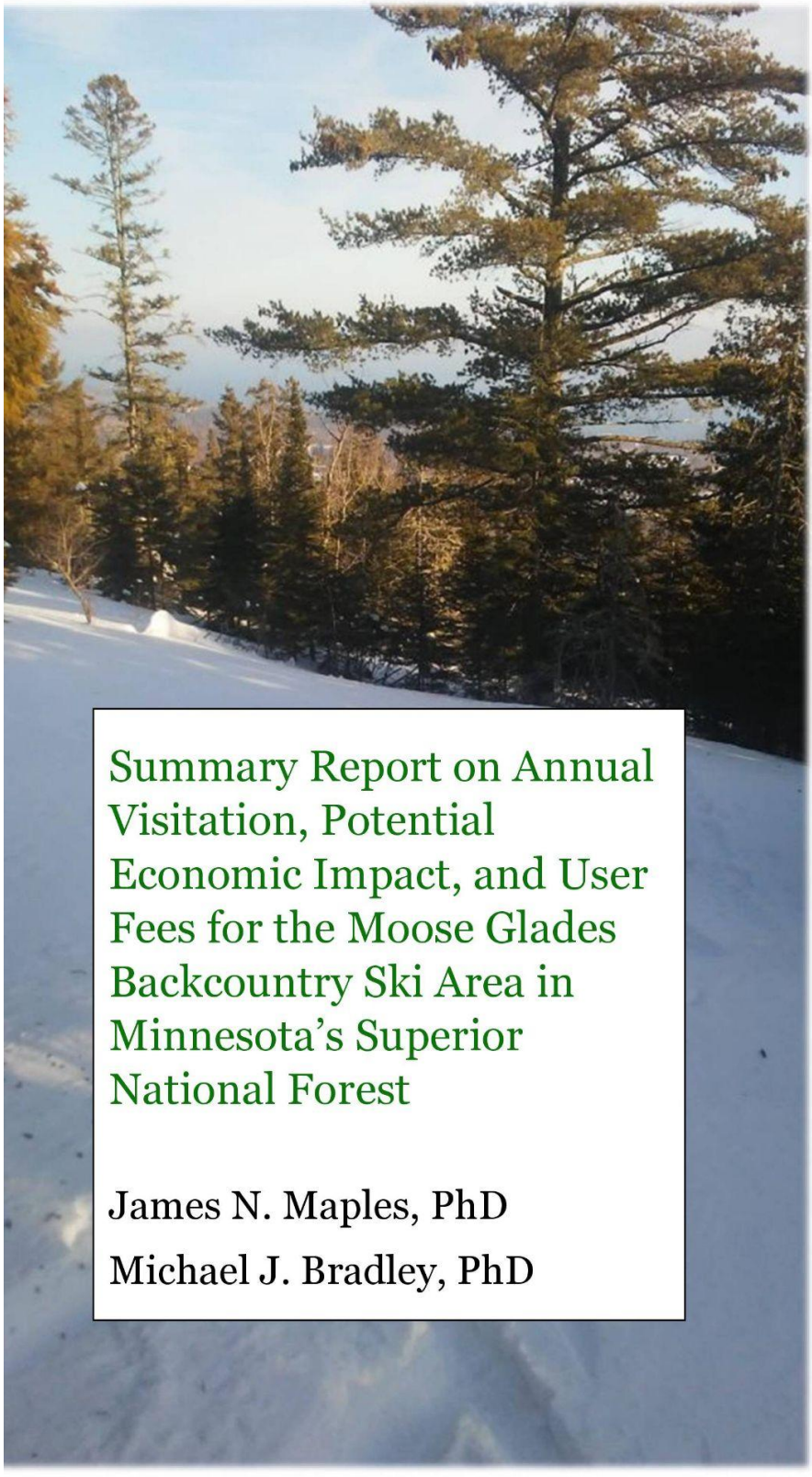
In closing, I would restate my request that you either select Alternative A: No Action, or develop an alternative that does not allow the development of cleared alpine runs or the construction of chair lifts on Moose Mountain. I thank you very much for your time, and the consideration of the great importance that this very singular geographical feature has to our organization, our members, and our user group at large.

Sincerely,
Eleanor King-Gallagher
Board Chairperson
Superior Highland Backcountry

Figure 1: Map of Minimally Maintained, Lift-Served Acreage Available on Moose Mountain



Appendix A: Preliminary Economic Impact Study of Moose Glades Backcountry Ski Area



Summary Report on Annual Visitation, Potential Economic Impact, and User Fees for the Moose Glades Backcountry Ski Area in Minnesota's Superior National Forest

James N. Maples, PhD

Michael J. Bradley, PhD

SUPERIOR HIGHLAND BACKCOUNTRY

MRG

MAPLES RESEARCH GROUP

Executive Summary of Study

- This study examines Moose Glades Backcountry Ski Area (MGBSA), a proposed skiing development in the Superior National Forest.
- This study establishes estimated annual attendance and economic impact based on the proposed MGBSA area opening. The study also proposes user fees for the location.
- The research team estimates annual attendance at MGBSA between 5,850-11,700 unique visits to the region in year one and 10,400-16,900 unique visits to the region in year five.
- The research team estimates visitors will spend an average of $382 per trip in the region as a result of visiting MGBSA.
- The initial potential economic contributions of MGBSA visitors to the region is $2.1 million to $4.3 million.
- The research team recommends a user fee structure of $8 per day or $30 per year to support development.

Report Contents:

Cover Art: Open Glade on Moose Mountain. Image Courtesy of Superior Highland Backcountry

Meet Your Research Team

Dr. James N. Maples is an associate professor of sociology at Eastern Kentucky University, where he examines the political economy of renewable tourism. His research interests include the economic impact of outdoor recreation and social change in rural areas. In his free time, he is conducting an oral history of rock climbing in Kentucky's Red River Gorge. He is also an Eagle Scout, Girl Scout dad, and metal detectorist.

Dr. Michael J. Bradley is an associate professor and director of graduate studies in the Department of Recreation and Park Administration at Eastern Kentucky University. His professional and academic interests include human dimensions of natural resource and wildlife management as well as sustainable recreation practices as it relates to outdoor recreation.

Abbreviations List

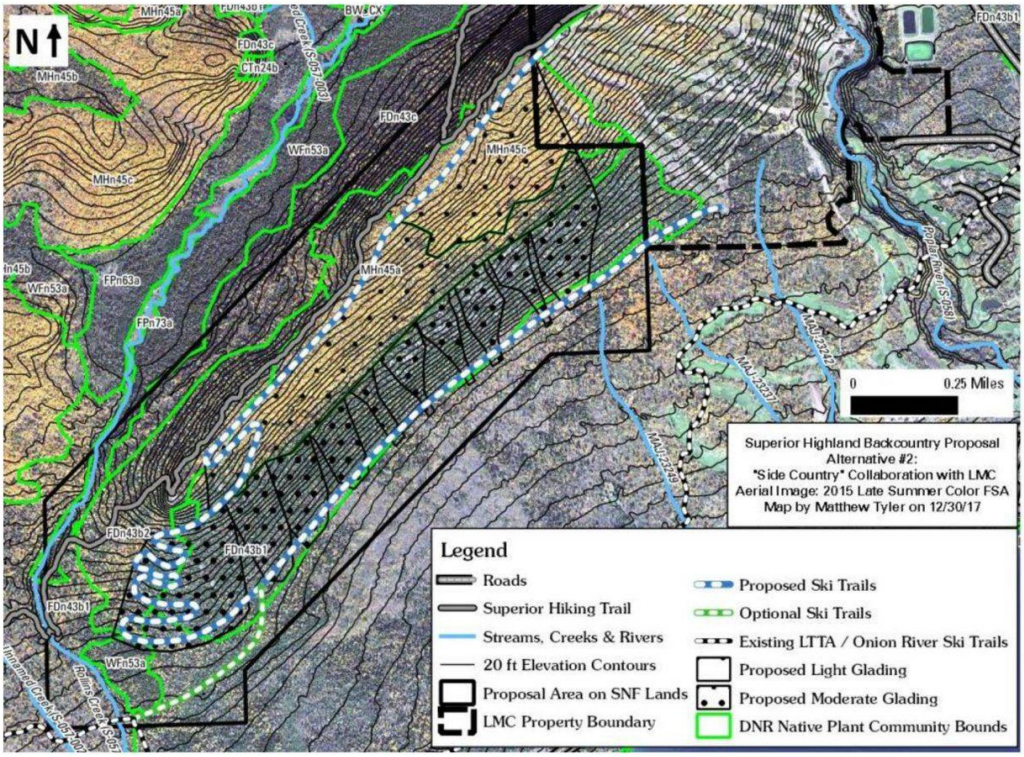
SNF: Superior National Forest

NVUM: National Visitor Use Monitoring

NFS: National Forest Service

MGBSA: Moose Glades Backcountry Ski Area

Map of Proposed MGBSA Alternate #2 (Courtesy of Superior Highland Backcountry)



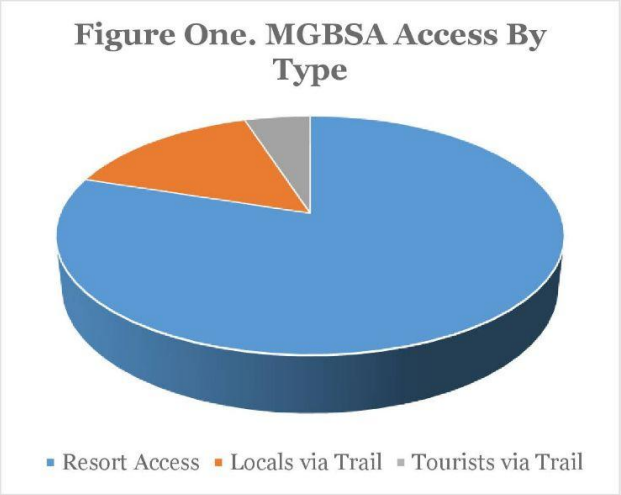
Estimated Annual Visitation

Table One details estimates for visitation to MGBSA in year one and year five. Note these estimates are *visits* rather than unique visitors, as a unique visitor can be responsible for multiple visits. Each year's estimates include low and high range annual visit estimates.

Year one estimates range from 5,850 to 11,700 visits per year. By year five, estimates are expected to increase to 10,400 to 16,900 visits per year. These estimates are new visits that would not occur without MGBSA existing.

Table One: Visitation Estimate Ranges For Proposed Skiing Area

Low Range Estimates				High Range Estimates			
Year One	Visits	Dates	Total Visits	Year One	Visits	Dates	Total Visits
weekends	300	13	3,900	weekends	600	13	7,800
weeks	150	13	1,950	weeks	300	13	3,900
Estimated Annual Visits			**5,850**	Estimated Annual Visits			**11,700**
Year Five	Visits	Dates	Total Visits	Year Five	Visits	Dates	Total Visits
weekends	500	13	6500	weekends	800	13	10,400
weeks	300	13	3900	weeks	500	13	6,500
Estimated Annual Visits			**10,400**	Estimated Annual Visits			**16,900**



It is expected that a great percentage of visitors to the MGBSA will access the area through the Lutsen Mountains Resort as part of their planned visit. Figure 1 summarizes visit types. In all, an estimated 80% of the initial visitors will be non-local Lutsen Mountains Resort users looking to access the backcountry resources in MGBSA. Another 15% will consist of local residents access MGBSA via the one mile backcountry trail. The final 5% are non-local visitors accessing MGBSA via the one mile backcountry trail. Again, all three categories are treated as new and unique visits linked directly to the opening of MGBSA.

By year five, the research team expect that MGBSA would be more widely known, leading to an increase in visitors overall as well as more visitors utilizing the one mile trail entry point.

The following data was used in establishing the annual visitation figures.
1. SNF Annual Visitation Estimates: The recent SNF NVUM survey reported a total estimated visitation of 1,491,000 in 2016. NVUM counts unique visits rather than unique users, meaning the same unique user can be counted for more than one visit. (See Appendix A.)

2. SNF Use Estimates: The recent SNF NVUM estimated that approximately 2.9% of visits involved cross-country skiing and .5% involved downhill skiing. They further estimated that 1.1% of visits were primarily for cross-country skiing and less than .01% were primarily for downhill skiing. Using the multi-use visit estimates of 2.9% and .5%, that equates to 43,239 cross-country skiing visits and 745 downhill skiing visits. (See Appendix B.)

3. Recent Changes Influencing Estimates: A review of the SNF's recent history revealed no major developments or detractions that would cause these figures to dramatically change since 2016. As is common to studies of this kind, and given the increase in popularity of skiing overall, the research team suggests including a 5% natural growth in the number of skiers. This adjusts the figures to 45,400 cross-country skiing visits and 782 downhill visits. This increase is also confirmed by nationwide statistics indicating growth in several skiing categories. (See Appendix C.)

4. Comparable Location: There is no ideal comparison for MGBSA in terms of location. MGBSA identified Mount Bohemia as a best case comparison case. Mount Bohemia is located in Michigan and consists of 585 skiable acres and a max vertical drop of 900 feet. One important distinction between the two is that Mount Bohemia contains an advanced-only user backcountry area, meaning that MGBSA may actually have a wider base from which to draw visitors over time.

5. Comparable Attendance: In talking with Mount Bohemia, their staff described having 7,000 season passes annually sold with the average user visiting 25-30 days per season. They also estimated a cumulative annual visitation of 30,000 during the skiing season. Do note that Mount Bohemia is open year-round and includes other activities, which may risk inflating the number of season passes. As such, the research team selected to work with the more specific estimate of 30,000 actual skiing-related visits. Again, the higher difficulty of routes at Mount Bohemia should be considered here.

6. Comparable Ski Season: The length of the skiing season is a critical component of visitation to skiing destinations. To model the length of season, the research team selected Lutsen Mountain Ski and Summer Resort as a comparable location, which is located near MGBSA. Lutsen Mountain Ski and Summer Resort operated skiing areas approximately 23 weeks in 2017-2018. The daily open season runs December 14-April 14 (approximately 17 full weeks). Lutsen also includes ten weekend only/holiday dates in November and December and four extended weekend dates in April and May. To provide a consistent visitation figure based on season length, the research team worked with the estimate of a three month season.

7. Estimate Exclusions One: One potential, but unavoidable, issue is the differentiation between cross country and downhill skiers in the NVUM. Previous experience with NVUM data suggests there are, occasionally, issues in defining skiers and their usage, which can skew the data. Likewise, users (such as backcountry skiers) may also be more difficult to measure as they are found in less-accessible areas that would often be less visited for NVUM purposes.

8. Estimate Exclusions Two: The estimates here do not take into consideration the progressive opening of additional areas within the MGBSA. However, year five does take into consideration natural growth in visitation.

9. Estimate Exclusions Three: Lutsen Mountains Resort represents an unknown effect in the attendance estimates. Although the research team expects that 80% of early visits will come via Lutsen Mountain users entering the MGBSA, it is difficult to predict or understand how policy changes at Lutsen Mountain might alter visitation at MGBSA.

Economic Impact Estimates

Table 2 lists estimated per visit mean expenditures for MGBSA. These estimates take into account group size, expense sharing, cases where visitors spend nothing in a category, and the services provided in the local economy. On average, a visitor to MGBSA will spend an estimated $382 as part of their trip to the area, the majority of which will remain in the local economy.

Table Two A: Per Visit Expenditures for Visitors to Moose Glade Backcountry Ski Area

Variable	Suggested Mean
Fast food	$2
Sit-down dining	$80
Grocery stores	$28
Gas station food/drink	$4
Gasoline and oil	$40
Retail gear	$30
Rental gear	$15
Retail, non-food	$8
Guide service	$25
Hotels, cabins, and resorts	$80
Lift tickets	$70
Total average expenditure per visit	$382

Table Three applies these means to the annual visitation estimates for the first year of opening the MGBSA area. The table includes low and high estimates. The research team estimates that visitors to MGBSA would contribute $2.1-$4.3 million annually to the local economy while in the region.

Table Four uses the same means to estimate year five expenditures, which account for growth in visitation. In year five, the research team estimates that visitors would contribute $3.9-$6.4 million annually to the local economy.

Table Three: Estimated Expenditures For First Year of Opening MGBSA by Estimated Visitation

Category	Mean	Low	High	Low Estimate	High Estimate
Fast food	$2	5,850	11,700	$11,700.00	$23,400.00
Sit-down	$80	5,850	11,700	$468,000.00	$936,000.00
Grocery stores	$28	5,850	11,700	$163,800.00	$327,600.00
Gas station	$4	5,850	11,700	$23,400.00	$46,800.00
Gasoline and	$40	5,850	11,700	$234,000.00	$468,000.00
Retail gear	$30	5,850	11,700	$175,500.00	$351,000.00
Rental gear	$15	5,850	11,700	$87,750.00	$175,500.00
Retail, non-	$8	5,850	11,700	$46,800.00	$93,600.00
Guide service	$25	5,850	11,700	$146,250.00	$292,500.00
Hotels, cabins, and resorts	$80	5,850	11,700	$409,500.00	$819,000.00
Lift tickets	$70	5,850	11,700	$409,500.00	$819,000.00
Total Per Visit Expenditures	$382	-	-	$2,176,200.00	$4,352,400.00

Table Four: Estimated Expenditures For Fifth Year of MGBSA by Estimated Visitation

Category	Mean	Low	High	Low Estimate	High Estimate
Fast food	$2	10,400	16,900	$20,800.00	$33,800.00
Sit-down	$80	10,400	16,900	$832,000.00	$1,352,000.00
Grocery stores	$28	10,400	16,900	$291,200.00	$473,200.00
Gas station	$4	10,400	16,900	$41,600.00	$67,600.00
Gasoline and	$40	10,400	16,900	$416,000.00	$676,000.00
Retail gear	$30	10,400	16,900	$312,000.00	$507,000.00
Rental gear	$15	10,400	16,900	$156,000.00	$253,500.00
Retail, non-	$8	10,400	16,900	$83,200.00	$135,200.00
Guide service	$25	10,400	16,900	$260,000.00	$422,500.00
Hotels, cabins, and resorts	$80	10,400	16,900	$832,000.00	$1,352,000.00
Lift tickets	$70	10,400	16,900	$728,000.00	$1,183,000.00
Total Per Visit Expenditures	$382	-	-	$3,972,800.00	$6,455,800.00

The following data were used in establishing a conservative per visit economic expenditures estimate.

1. Regional Spending, Region Nine: Table Five details basic expenditures estimated by the NFS in the NVUM for downhill and cross country skiers. These include day visitors (persons who leave the NFS by the end of the day) and visitors who stay overnight for one or more nights. These estimates also include low to high estimates for both categories.

Table Five: Average Visitation Estimates for Region Nine National Forests (Including Superior National Forest

Type	Day Visits (Per Visit)			Overnight Visits (Per Visit)		
	low	med	high	low	med	high
Downhill Skiers	$66	$80	$101	$220	$342	$400
Cross-country Skiers	$44	$53	$68	$215	$335	$431

2. Skiing-specific expenditures in developed skiing areas: Table Six summarizes mean expenditures by category in Colorado's Grand Mesa, Uncompahgre, and Gunnison National Forests. The tables include all types of skiing available (including downhill and cross country) and treats these users their expenditures as being similar. The estimates have also been adjusted for points of influence, meaning that cases exceeding three deviations from the initial mean have been marked as missing data. This results in a more conservative estimate and is common to economic impact research.

Table Six: 2018 Adjusted Mean Expenditures for Skiing in Grand Mesa, Uncompahgre, and Gunnison National Forests

Variable	Mean $	Std. Dev.	Min	Max
Fast food	$3.80	$7.46	0	30
Sit-down dining	$158.01	$238.99	0	1200
Grocery stores	$57.73	$156.99	0	1000
Gas station food and drinks	$3.42	$6.60	0	30
Gasoline and oil	$39.44	$48.95	0	300
Retail gear	$45.23	$180.93	0	1200
Rental gear	$8.83	$20.80	0	100
Retail, non-food	$8.49	$49.75	0	350
Guide service	$40.38	$137.93	0	750
Adventure tourism	$0.98	$5.00	0	30
Entertainment	$1.50	$5.32	0	25
Hotels, cabins, and resorts	$105.07	$187.52	0	600
Total average expenditures per visit	$472.88	-	-	-

3. Local economy review: The research team has examined the local economy near Lutsen, Minnesota and surrounding area to verify that all services listed in Table Two are available. The infrastructure currently found in the region (which includes local businesses focused on tourism) is also capable of sustaining the proposed means and visitation levels given in the tables during the skiing season. It is important to note that the economy reflects much of visitors' expenditures remaining in the local economy, which is very desirable in economic impact research terms.

4. Survey of marketing techniques used in lift ticket pricing: The research team noted several pricing strategies used in pricing lift tickets. These include packaged deals (resort lodging and lift ticket in one bundle), flex tickets (pre-purchased passes usable any day during the season), promotional discounts (often aimed at Armed Services and skiers aged 65 and up), half-day passes (passes that operate during a specified half portion of the day), seasonal pricing (select days at higher prices, less desirable days at lower prices), and rack rate tickets (tickets purchased on site at non-changing prices).

5. Nearby location pricing: Lutsen Mountain is a nearby example of lift ticket pricing. Lutsen Mountain offers a mix of flex, discount, seasonal pricing, and rack rate pricing. Rack pricing during the majority of the season is $84 for adults with a $7 discount for half day pricing. Seasonal passes are not offered on their website. Their website offers flex tickets as well as demand tickets. Armed Forces members and their families receive a $20 ticket discount, while seniors receive a $10 discount. One variant is that Lutsen Mountain has a resort as part of its offerings. Reviewing the list of lift ticket prices across the nation, the presence of a resort often appears to influence lift ticket pricing.

6. Estimate Exclusions One: It is advisable to collect actual data from visitors in the region to give a more reliable estimate of expenditures. As the skiing season was closed when this study was conducted, it was not possible to collect this data first hand.

7. Estimate Exclusions Two: As with all economic impact estimates, average expenditures will often vary by seasons, weather, unique visitors, and a unique visitors repeat visits. It is advisable that, upon opening, a full economic impact study be done of the new area or an expanded portion of the SNF to confirm results.

8. Estimate Exclusions Three: The estimated per visit figures in year five make no account for dynamic economic impact, which is created when new businesses are opened as a direct result of existing outdoor recreation opportunities. New businesses generally push per visit expenditures up rather than down as new services are offered.

9. Estimate Exclusion Four: The estimates do not delineate between day users and overnight users, as is common for economic impact research. Instead, the figures can be understood as typical expenditures for the average visitor. It is assumed that the majority of visitors to MGBSA would be overnight visitors.

10. Estimate Exclusion Five: The estimates in year five make no account for the increased costs of services and goods over time. Particularly, there is presently a growth

in downhill gear, which can be quite costly, and that increase (or even decrease as it becomes more prevalent in the market) is not considered in these estimates.

Use Fee Structure

User fees are collected to help support maintenance to the location so that it is available for recreation purposes. User fees are also a common element to national forest visits when accessing special use areas such as skiing opportunities. Recent data and Forest Service reporting indicate that Superior National Forest brought in over $1 million in user recreation fees in 2015. In the case of MGBSA, the applied user fee is critical to funding maintenance and development costs.

Table Seven lists the suggested user fee pricing schedule. The research team suggests applying an $8 per day seasonal use fee and $30 per year seasonal pass option. This does not include lift ticket costs for Lutsen Mountain Resorts.

Table Seven: Suggested MGBSA User Fee Schedule

Type	Price
One day pass	$8
Season pass	$30
Foundational pass (ten year pass)	$500

Based on the value of volunteering to support MGBSA in its early years, the research team recommends offering discounted pricing for volunteers willing to help with development work in exchange for a commitment to serve for a specified number of hours per year. We also recommend a foundational pass (good for ten years) that is symbolically priced at $500 to help support development. Consider also listing foundational pass purchasers on a board somewhere in the MGBSA. MGBSA may also want to consider a military service and senior pass discounted price. Based on other skiing pricing, the research team suggest a 10% discount.

The following data and information were considered in crafting a recommended user fee.

1. List of national lift ticket prices: The research team was unable to locate a listing of user fees across the nation. However, the research team examined a recent listing of ski lift ticket costs across the nation as a point of comparison. Lift ticket fees function as user fees at multiple Forest Service locations with resorts turning over a percentage of the fees collected to the Forest Service and other organizations. The costs widely range from lower demand areas (where the lift tickets may be less than $30 for the day) to much higher prices at well-known and established skiing destinations (where tickets may exceed $200). (See Appendix D)

2. Survey of marketing techniques used in lift ticket and user fee pricing: The research team noted several pricing strategies used in pricing lift tickets. These include packaged deals (resort lodging and lift ticket in one bundle), flex tickets (pre-purchased passes usable any day during the season), promotional discounts (often aimed at Armed Services and skiers aged 65 and up), half-day passes (passes that operate during a

specified half portion of the day), seasonal pricing (select days at higher prices, less desirable days at lower prices), and rack rate tickets (tickets purchased on site at non-changing prices).

3. Similar location pricing: Mount Bohemia offers multi-year seasonal passes and rack rate tickets, wrapping their use fees (as a private location) into the lift ticket fee. Season passes (if purchased on a specific day at the start of the season are $117. The remainder of the season they are $340. Multi-year passes include a two-year deal (if purchased at start of season) for $176, while a ten year pass is $617. Rack rate tickets are $65 for any age and any day of the season. It is important to note that Mount Bohemia includes a resort as part of their offerings. Reviewing the list of lift ticket prices across the nation, the presence of a resort often appears to influence lift ticket pricing.

4. Nearby location pricing: Lutsen Mountain is a nearby example of lift ticket pricing. Lutsen Mountain offers a mix of flex, discount, seasonal pricing, and rack rate pricing. Rack pricing during the majority of the season is $84 for adults with a $7 discount for half day pricing. Seasonal passes are not offered on their website. Their website offers flex tickets as well as demand tickets. Armed Forces members and their families receive a $20 ticket discount, while seniors receive a $10 discount. Note one variant is that Lutsen Mountain has a resort as part of its offerings. Reviewing the list of lift ticket prices across the nation, the presence of a resort often appears to influence lift ticket pricing.

5. Visitation patterns per year: It's important to find a reasonable cut point for the season pass to create value in buying the pass but also not outstrip the value of one day passes. It is conjecture, but for local and regional volunteers, having access to a season pass could also support future volunteering. In a separate study, the research team examined frequency of return visitation patterns by different kinds of skiers. No similar stats have been established for the Superior National Forest, but using data from the Grand Mesa, Uncompahgre, and Gunnison National Forests, backcountry skier visitors (n=77) returned an average 18 times per year. Similarly, cross-country (groomed) skier visitors returned an average ten times per year, while ungroomed cross-country skier visitors returned 12 times per year.

6. Estimate Exclusion One: The suggested lift prices in this study did not attempt to establish the operation costs of the lift or incorporate this into the cost analysis.

Contact Information for Future Studies

Maples Research Group believes that data supports the outdoor revolution happening right now the in the United States. The MRG team includes political economists, outdoor recreation specialists, statisticians, social scientists, and a wide variety of outdoor recreation users ready to conduct research on outdoor recreation users' economic impact, management, and experiences. Contact james.n.maples@gmail.com for further information.

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Appendix B: Compilation of Studies Showing Changing Trend in Skiing by Age Demographic

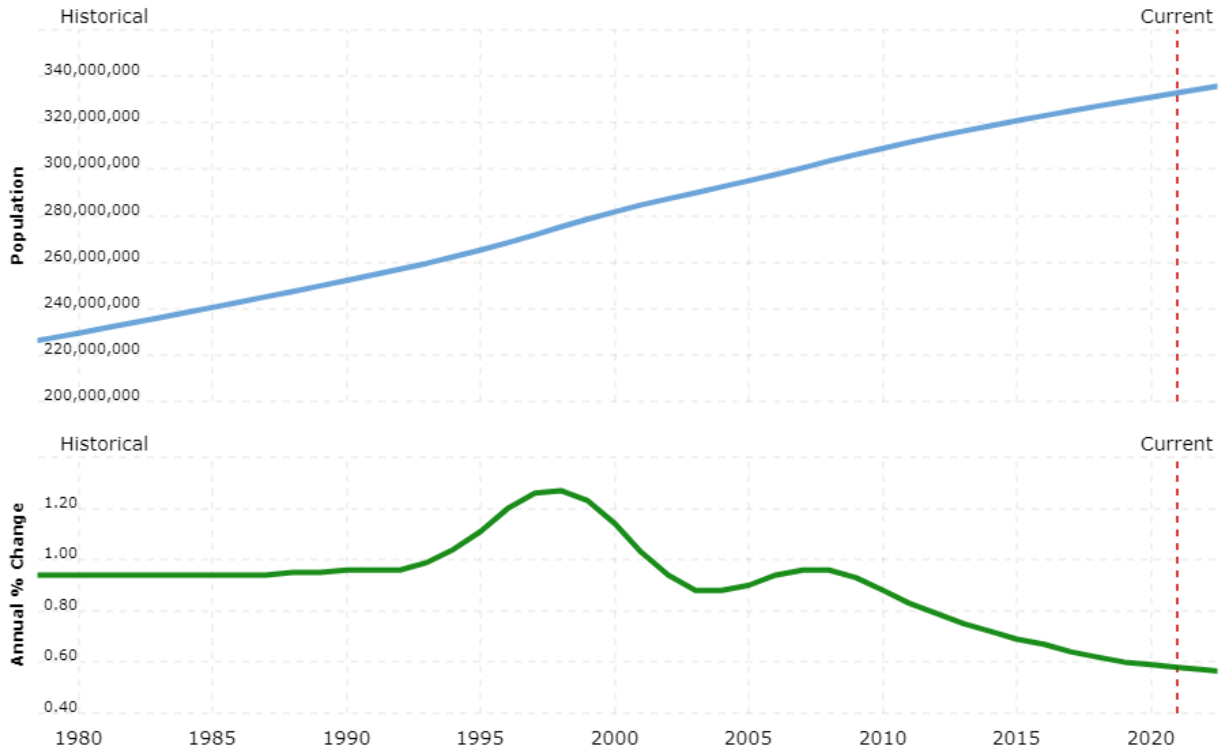
NATIONAL SKI AREAS ASSOCIATION

HISTORICAL SKIER VISITS

Estimated U.S. Snowsports Visits by Region, 1978/79 – 2020/21 (in millions)

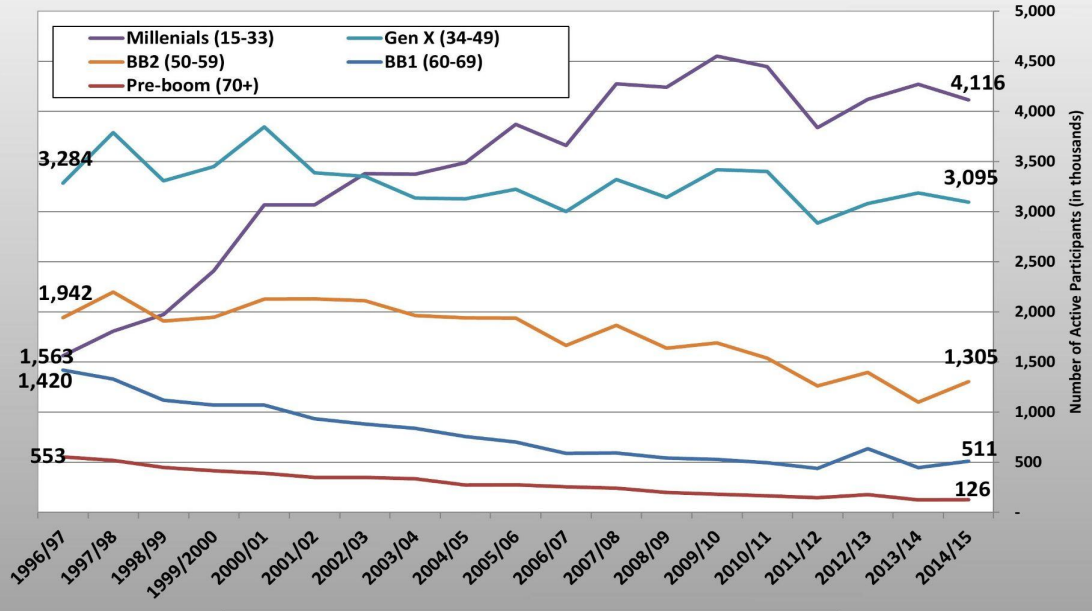
SEASON	Northeast	Southeast	Midwest	Rocky Mtn.	Pacific Southwest	Pacific Northwest	Pacific West (total)	National Total	National Rank
2020/21	12.252	5.235	7.098	22.638	7.238	4.544	11.781	59.004	5
2019/20	11.488	3.835	6.396	20.107	5.959	3.294	9.253	51.079	33
2018/19	12.514	4.262	6.498	24.408	7.585	4.075	11.660	59.343	4
2017/18	11.987	4.161	6.257	20.792	6.227	3.850	10.081	53.273	25
2016/17	11.936	4.184	5.421	21.736	7.385	4.098	11.483	54.761	15
2015/16	9.346	3.957	5.516	22.287	7.480	4.206	11.686	52.792	26
2014/15	13.332	5.673	6.982	20.768	4.822	2.000	6.823	53.578	23
2013/14	13.386	5.769	7.695	21.100	5.154	3.387	8.541	56.491	13
2012/13	13.334	5.155	7.273	19.800	7.140	4.202	11.342	56.904	11
2011/12	11.021	4.405	6.382	19.130	6.066	3.962	10.028	50.966	34
2010/11	13.887	5.789	7.811	20.900	8.111	4.042	12.153	60.540	1
2009/10	13.411	6.016	7.718	20.378	8.411	3.853	12.264	59.787	3
2008/09	13.730	5.664	7.247	19.974	7.091	3.647	10.738	57.354	8
2007/08	14.261	5.204	8.099	21.324	7.617	3.998	11.615	60.502	2
2006/07	11.801	4.888	7.200	20.849	6.536	3.794	10.330	55.068	14
2006/07	12.505	5.839	7.787	20.717	7.916	4.133	12.049	58.897	6
2004/05	13.661	5.504	7.533	19.606	8.888	1.690	10.579	56.882	12
2003/04	12.892	5.588	7.773	18.868	8.033	3.912	11.946	57.067	10
2002/03	13.991	5.833	8.129	18.728	7.885	3.027	10.913	57.594	7
2001/02	12.188	4.994	6.980	18.123	7.947	4.179	12.126	54.411	17
2000/01	13.697	5.458	7.580	19.324	7.836	3.442	11.278	57.337	9
1999/00	12.025	5.191	6.422	18.109	6.651	3.800	10.451	52.198	29
1998/99	12.299	4.261	6.005	18.440	7.485	3.599	11.084	52.089	30
1997/98	12.712	4.343	6.707	19.191	7.918	3.251	11.169	54.122	18
1996/97	12.407	4.231	7.137	18.904	6.359	3.482	9.841	52.520	28
1995/96	13.825	5.693	7.284	18.148	6.012	3.022	9.034	53.983	20
1994/95	11.265	4.746	6.907	18.412	Not avail.	Not avail.	11.346	52.677	27
1993/94	13.718	5.808	7.364	17.503	Not avail.	Not avail.	10.244	54.637	16
1992/93	13.217	4.660	6.978	18.602	Not avail.	Not avail.	10.575	54.032	19
1991/92	12.252	4.425	6.535	17.687	Not avail.	Not avail.	9.936	50.835	35
1990/91	11.157	4.257	6.486	16.706	Not avail.	Not avail.	8.115	46.722	42
1989/90	13.299	4.447	6.915	16.048	Not avail.	Not avail.	9.311	50.020	39
1988/89	12.741	5.424	7.013	16.601	Not avail.	Not avail.	11.556	53.335	24
1987/88	14.421	5.885	6.783	16.564	Not avail.	Not avail.	10.255	53.908	21
1986/87	14.745	5.816	6.944	16.680	Not avail.	Not avail.	9.564	53.749	22
1985/86	12.836	5.218	7.201	16.869	Not avail.	Not avail.	9.797	51.921	31
1984/85	11.083	4.394	6.899	17.626	Not avail.	Not avail.	11.352	51.354	32
1983/84	12.087	5.175	6.961	16.801	Not avail.	Not avail.	9.606	50.630	37
1982/83	9.523	4.256	6.213	14.808	Not avail.	Not avail.	12.061	46.861	41
1981/82	11.467	5.064	7.846	15.337	Not avail.	Not avail.	11.004	50.718	36
1980/81	8.953	4.172	7.688	10.486	Not avail.	Not avail.	8.401	39.700	43
1979/80	8.655	4.230	8.682	17.160	Not avail.	Not avail.	9.473	48.200	40
1978/79	11.294	3.763	9.743	15.837	Not avail.	Not avail.	9.560	50.197	38

Note: Pacific West visits are segmented by sub region (Pacific Southwest and Pacific Northwest) from 1995/96 – 2020/21. Pacific West visits are reported in aggregate total for 1978/79 – 1994/95 (sub regional breakouts unavailable).


Historical
Current
340,000,000
320,000,000
300,000,000
280,000,000
260,000,000
240,000,000
220,000,000
200,000,000
Population

Historical
Current
1.20
1.00
0.80
0.60
0.40
Annual % Change
1980
1985
1990
1995
2000
2005
2010
2015
2020

Number of Active Snowsports Participants by Age Cohort: 1996/97 to 2014/15



No significant change in the number of Millennials or Gen X participants in 6 seasons.

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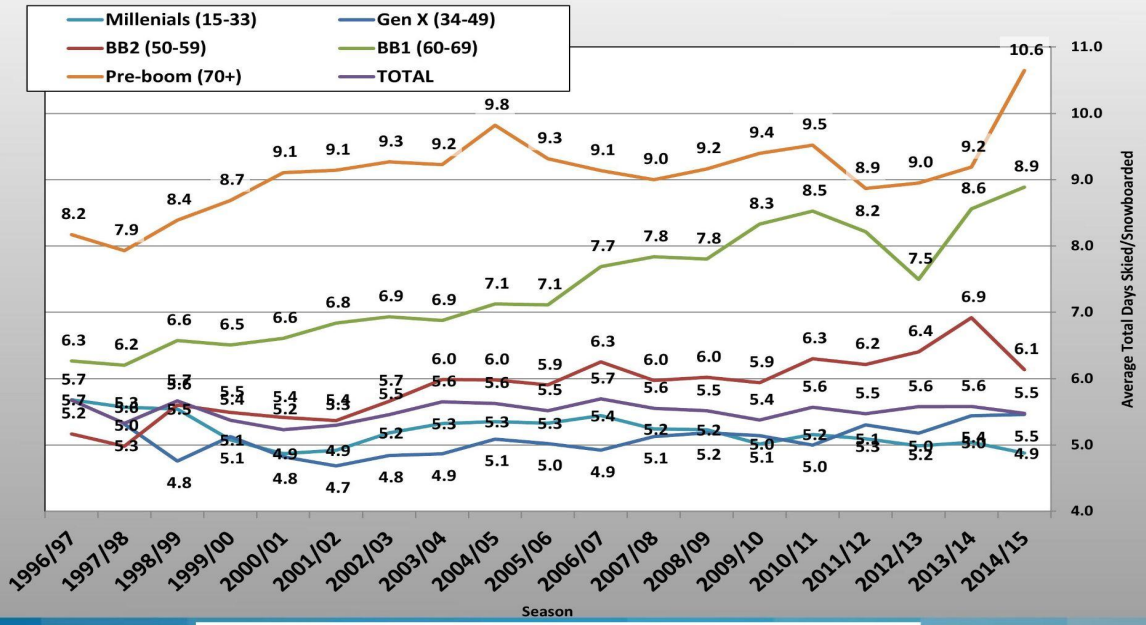
Average Total Number of Days Skied/Snowboarded by Cohort: 1996/97 to 2014/15



Millennials are skiing/snowboarding at significantly lower frequency than older generations.

RRC ASSOCIATES

NSAA BEGINNER CONVERSION STUDY

Illuminating the Behaviors, Motivations of New Skiers/Riders

BY ROB LINDE, RRC ASSOCIATES

NOW IN ITS SECOND YEAR, the NSAA Beginner Conversion Study continues to advance the concept of conversion for the industry. Although this will be a long-term endeavor, the study is certainly starting to reveal a greater understanding of the beginner skier/snowboarder. The measurements provided give the industry a far better chance to keep new participants and move them into core participants.

The NSAA Beginner Conversion Study is a longitudinal study that surveys skiers and snowboarders over multiple years. By surveying first-timers, surveying them again over the course of the season, again the next year, then the following year, and so on, we can tell a great deal about beginners' behavior patterns, frequency of visits, buying behavior, and if they returned to a particular resort or visited another resort.

In some cases, the research confirms some of the notions we already have about beginner skiers and snowboarders. In all cases, we can now quantify common reactions to first-time experiences and reasons participants may or may not return for another try. These and many other interesting discoveries are evident in the research.

Some of the preliminary findings from this year's study are stated here, but more information will be uncovered as the data is analyzed and refined by RRC Associates. These additional findings will be presented at the NSAA National Convention in Nashville, Tenn., May 18–21.

Motivators to Come Ski/Snowboard

What motivates someone to make that first trip to the mountain to try skiing or snowboarding? It requires a significant investment of time, money, and effort, so understanding this basic motivation is a key piece of information. The current results confirm a long-held guess about the leading motivators but show that some may not be as powerful as we think.

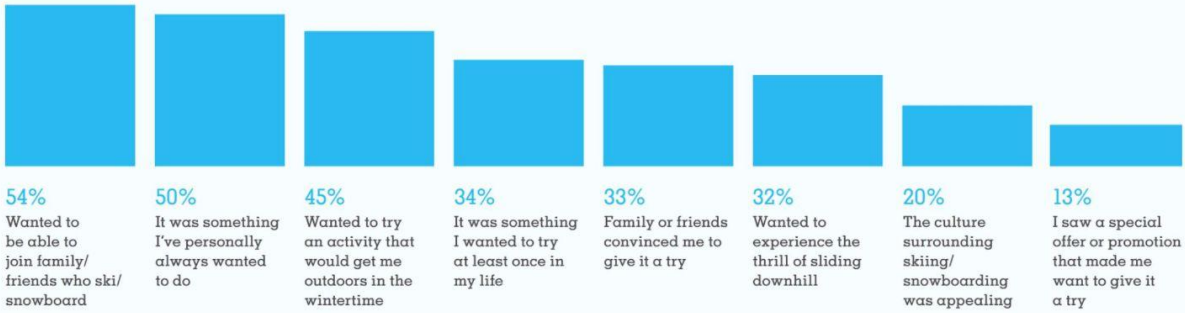
Friends and family are the leading reason people give the sport a try (see figure 1). This includes 54 percent of respondents who indicated they wanted to be able to join family and friends who are participants, and 33 percent who were convinced by family or friends to try.

Half of respondents said this was always something they wanted to try while almost half said they wanted to try it because it would get them outside. Only 13 percent of respondents cited a special offer or promotion as their motivation, the least selected answer option. This result indicates that these types of promotional offers can move people to try the sport, but may not be as effective as programs that make a personal connection.

Influencers

This year's research reconfirmed last season's conclusions about the significant influence the instructor has on a first-time experience. The instructor can either make or break the beginner's initial time on the snow. In fact, "instructor" was the top response to both open-ended questions asking what participants liked

FIGURE 1. Motivations to Try Skiing/Snowboarding



best about their experience—and liked least about their experience. This is an essential response to acknowledge. The research substantiates the importance of quality instruction.

The First-Time Experience

Generally speaking, people report a great first experience, and the numbers suggest that the industry does a good job with never-evers (figure 2). In fact, the numbers are so encouraging, it is perplexing as to why the industry conversion rate is only 17 percent.

On a 10-point scale, the average rating when asked, "How much fun did you have on your recent visit to this resort?" is 8.5. When asked how likely guests are to ski or snowboard again next year, the average is 8.9, and when asked how likely they are to continue the sport as a life-long activity, the average is 8.3. Overwhelmingly, a majority of skiers and snowboards report having a fun experience and are optimistic in their intentions to return to the sport.

Why Don't They Come back?

This season, the research probed much deeper into the reasons beginners may not participate again (figure 3). Travel distance and time is the leading reason (46 percent) followed by cost of lift tickets/season passes (39 percent).

Interestingly, only 9 percent of the beginners surveyed said they may not participate again because they are frustrated by their ability level, and only 1 percent said they may not participate again because they did not enjoy the sport. As the research progresses, we will be able to more critically analyze these responses and draw more conclusions.

Some of the expressed barriers to returning to the sport of skiing and snowboarding are logistical and cannot be overcome. Distance traveled and time may be a reason to not return, yet it may be one of the reasons people come to the mountains in the first place. A remote mountain destination can be a wonderful excursion for some and provides a unique vacation experience.

Looking Ahead

The NSAA Beginner Conversion Study clearly indicates that first-time skiers and riders have a good time and want to come back to the sport. A majority indicate they want to "continue skiing and snowboarding as lifelong sport," but does day-to-day life get in the way of returning? The goal has to be to reduce the perception of barriers while appealing to the many motivations to visit.

The industry is skilled at engaging season pass holders and core participants, but we must ask ourselves the following:

- Do we spend the appropriate resources to get first-timers to come back again?
- Do we capture contact information from the first-timer and reach out to remind them of their fun experience?
- Do we use the instructor as an ambassador to invite first-timers to return?
- Do we specifically invite first-timers to join our social media networks?
- Do we create compelling offers geared specifically to first-timers?
- Do we go back to lapsed beginners and incentivize them to return with significant incentives?

Certainly, some resort operators do a great job in these areas, but the research indicates there are significant opportunities to improve and focus more on engaging with new participants and inviting them to return.

Looking ahead, it is critical to specifically study the beginner skier and snowboarder. The more information we can gather, the more measurable insights and quantitative results we will have to create strategies that assure continued growth for the industry.

For information on how your resort can participate in the Beginner Conversion Study, contact Rob Linde at rob@rrcassociates.com. N

FIGURE 2. First-Time Experience Rating on 1–10 Scale

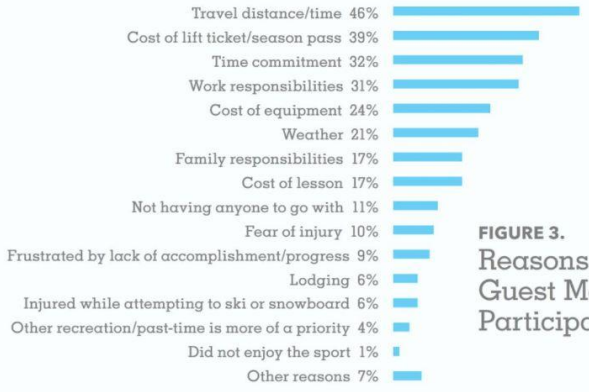


FIGURE 3. Reasons Why Guest May Not Participate Again