

## **Industry Benchmarking**

A Benchmark analysis is a valuable tool used to determine how an organization is performing through comparisons with similar organizations in their industry. This analysis can highlight areas where the company is performing well or areas that should be improved in order to avoid falling behind customer expectations and losing market share. Benchmarking can also highlight additional activities and services that others have incorporated into their business models and provide insights regarding the potential performance of a new activity.

## **National Ski Areas Association Economic Analysis**

Ski industry benchmarking typically utilizes the National Ski Areas Association (NSAA) Economic Analysis. This analysis is performed through an annual survey of member resorts' physical characteristics (e.g., size and capacities) and financial performance by operating department. In the 2017/18 survey, 114 resorts throughout the country provided information.

NSAA organizes the survey results by region and size and provides a rich source of information that allows for analytical analysis (benchmarking) by these categories. This is the best industry information available to compare resorts by region and size. We use this information to glean valuable insights regarding a resort's operating results and present possible opportunities for improvement. A typical benchmark analysis compares key resort financial data with survey information by resort size within a region as detailed in Table 8.

There are some challenges using this data for this analysis:

- The smallest category in the Economic Survey is 7.5MM Vertical Transport Feet/Hour (VTFH) (Teton Pass is only 1,112,000 VTFH).
- The smallest areas tend to have lowest participation in this research endeavor; limited data is available for comparison.

Because of these factors, it is difficult to use this typical benchmarking format and industry data to make a valid comparison for Teton Pass.

## **NSAA Kottke Analysis**

Another source of industry-wide data segmented by size and complexion of resort operations is the NSAA Kottke End of Season Survey. This survey, designed "to track several key barometers of interest and importance within the ski industry," is more general in nature than the Economic Analysis. It provides general financial information such as number of tickets, passes, and lessons sold along with ticket yields. Other operational information within this report include the number of snowmaking days, snowfall, visitation patterns, visitor age, visitation patterns, visitation by ticket type, lift capacity, capital improvements, and non-snow sports activities. A greater number of resorts participate in the Kottke survey, and smaller ski areas are better represented in this research effort. For the 2017/18 season, 230 resorts (more than twice as many as the NSAA Economic Survey) reported data.

## **Hybrid Compilation**

To facilitate a valid benchmarking analysis for Teton Pass utilizing comparable smaller resorts, we employed a *hybrid* compilation of information from the two sources of data:

- The Kottke analysis was utilized to create a comparable set of small resorts, and

- The percentage breakdowns for revenue and expenses from the Economic Analysis (with a subset of areas less than 3.5MM VTFH) were utilized to project revenue and expenses detail from the limited financial detail provided by Kottke.

### **NSAA Kottke End of Season Survey – Comparable Resorts**

The following subset of smaller resorts was taken from the NSAA Kottke End of Season Survey. These three resorts, in Nevada, South Dakota, and Vermont, have a similar VTFH (i.e. lift capacity) to Teton Pass.

**Table 1. Comparable Resorts Information**

State	Visits 2017/18	Adult Ticket 2017/18	Child Ticket 2017/18	Ticket Yield 2017/18
NV	20,000	\$30.00	\$25.00	\$11.65
SD	23,042	\$26.00	\$26.00	\$12.61
VT	19,000	\$45.00	\$38.00	\$12.73
<b>Average</b>	<b>20,681</b>	<b>\$33.67</b>	<b>\$29.67</b>	<b>\$12.33</b>

The visitation and ticket yield data above (ticket yield is the revenue per visit divided by the lead ticket or listed ticket price) will be used to calculate the ticket revenue for each resort. The calculated ticket revenue allows for the calculation of total revenue, utilizing the percentage of total revenue breakdowns provided by the NSAA Economic Analysis (see following description).

### **NSAA Economic Analysis – Revenue and Expense Projections**

Table 2 summarizes the average percent of the total revenue that is generated by the main revenue-generating departments of small ski areas. These percentages will be applied to 1) determine total revenue (using ticket revenue), and then 2) project the estimated revenue by department.

**Table 2. NSAA Economic Analysis – Percent of Total Revenue by Department  
(Small Ski Areas – less than 3,500,000 VTFH)**

Department	2017/18	2016/17
Lift tickets	34.3%	32.7%
Snowplay	7.7%	8.1%
Lessons	5.6%	5.7%
Food & Beverage	19.4%	19.7%
Retail Stores	5.3%	5.2%
Rental Shops	9.1%	8.2%
Lodging	5.2%	5.7%
Miscellaneous	0.0%	0.0%
Other	13.4%	14.7%
Property Operation	0.0%	0.1%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>

Note: Data is based on the information submitted by fifteen participating ski areas.

The NSAA Economic Analysis data also provides percentage breakdowns for expenses incurred. Based on the percentage of expenses and the profit, the percentage of revenues is also provided.

**Table 3. NSAA Economic Analysis – Percent of Total Expenses  
(Small Ski Areas – less than 3,500,000 VTFH)**

Expense Category	Percent of Expenses		Percent of Revenue	
	2017/18	2016/17	2017/18	2016/17
Cost of goods	10.2%	9.8%	8.8%	9.2%
Direct labor	36.1%	34.2%	31.2%	32.3%
Maintenance/Repairs	3.5%	4.3%	3.0%	4.1%
Other direct	8.8%	10.0%	7.6%	9.5%
Payroll taxes	5.9%	7.6%	5.1%	7.2%
Power/Electric	5.7%	6.2%	4.9%	5.8%
Gen. and admin.	15.4%	14.3%	13.3%	13.5%
Marketing/adv.	4.7%	4.3%	4.0%	4.1%
Insurance	3.1%	2.6%	2.7%	2.5%
Land use fees	2.1%	2.1%	1.8%	2.0%
Property/other taxes	2.7%	2.7%	2.4%	2.6%
Miscellaneous	-15.2%	-15.1%	-13.1%	-14.3%
Depreciation	13.0%	15.2%	11.3%	14.3%
Amortization	0.1%	0.0%	0.1%	0.0%
Operating Leases	0.9%	0.7%	0.8%	0.7%
Interest	2.9%	1.0%	2.5%	0.9%
Profit BT	15.9%	5.6%	13.7%	5.6%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

Note: Data for both seasons is based on the information submitted by fifteen participating ski areas.

These percentages will be applied to the estimated total revenue to estimate expenses by department.

## **Modified Benchmark Analysis Results**

Collectively, the data in Tables 4 through 7 below, was used to develop a “modified” Benchmark Analysis (Table 8), providing a comparison of the potential revenue and expense composition of a smaller resort when operated under sustainable economic conditions. The revenue and expense percentages from the NSAA Economic Analysis are applied to the theoretical calculation of gross revenues from the Kottke study to develop the average revenue and expense data to benchmark past Teton Pass operations.

The information in the first four columns (skier visits, adult ticket, child ticket and ticket yield) of Table 4 is the data from the Kottke study. As explained earlier, this data allows for the calculation of the theoretical ticket revenue, theoretical total revenue (assuming ticket revenue is 45% of total revenue), and total revenue per visit, as shown.

**Table 4. Revenues based on Kottke End of Season Survey**

State	Skier Visits	Adult Ticket	Child Ticket	Ticket Yield	Theoretical Ticket Revenue	Theoretical Total Revenue	Total Revenue Per Visit
	2017/18	2017/18	2017/18	2017/18			
NV	20,000	\$30.00	\$25.00	\$11.65	\$233,000	\$517,778	\$25.89
SD	23,042	\$26.00	\$26.00	\$12.61	\$290,560	\$645,688	\$28.02
VT	19,000	\$45.00	\$38.00	\$12.73	\$241,870	\$537,489	\$28.29
<b>Average</b>	<b>20,681</b>	<b>\$33.67</b>	<b>\$29.67</b>	<b>\$12.33</b>	<b>\$255,143</b>	<b>\$566,985</b>	<b>\$27.42</b>

Utilizing the average theoretical total revenue from Table 4, Tables 5 and 6 show estimated revenue and expenses by category for the three comparable resorts. These figures are from the percentages of revenue from the NSAA Economic Analysis for 2017/18 and 2016/17 seasons (see Table 3 above). Averages from these calculations are used in the benchmark analysis for Teton Pass (Table 8).

**Table 5. 2017/18 Theoretical Revenue Category Allocation**

State	Ticket Rev	Snowplay Rev	Lesson Rev	F&B Rev	Retail Rev	Rentals Rev	Lodging	Misc	Other Rev	Property Ops	Total Rev
NV	\$169,543	\$41,792	\$29,593	\$101,833	\$26,900	\$42,500	\$29,349	\$0	\$75,884	\$383	\$517,778
SD	\$211,427	\$52,116	\$36,904	\$126,989	\$33,546	\$52,999	\$36,600	\$0	\$94,630	\$477	\$645,688
VT	\$175,998	\$43,382	\$30,720	\$105,710	\$27,924	\$44,118	\$30,467	\$0	\$78,773	\$398	\$537,489
<b>Avg</b>	<b>\$185,656</b>	<b>\$45,763</b>	<b>\$32,406</b>	<b>\$111,511</b>	<b>\$29,457</b>	<b>\$46,539</b>	<b>\$32,139</b>	<b>\$0</b>	<b>\$83,096</b>	<b>\$419</b>	<b>\$566,985</b>

**Table 6. 2017/18 Theoretical Expense Category Allocation**

State	Direct Labor	COGS	Other	Profit BT	Total Expense
NV	\$161,494	\$45,527	\$239,792	\$70,964	\$488,887
SD	\$201,389	\$56,773	\$299,032	\$88,495	\$609,661
VT	\$167,642	\$47,260	\$248,921	\$73,666	\$507,496
<b>Average</b>	<b>\$176,842</b>	<b>\$49,853</b>	<b>\$262,582</b>	<b>\$31,637</b>	<b>\$535,348</b>

## **Teton Pass Financial Data Summary**

The table below summarizes the past operating information for Teton Pass. The information is compiled from various sources as formal operating statements from the resort were not available. A summary of sources is below:

- Historical skier visit information was provided by the USFS from annual reports submitted by the ski area.
- MCDC procured a daily revenue summary worksheet for the six seasons from 2012/13 to the last year of operation in 2016/17. This information only provided revenue in total without departmental detail. Revenue by season and days open are derived from the daily revenue summary worksheet as provided.
- Actual operating expenses were not available from the resort. A former employee estimated annual budgeted operating expenses. The employee estimated the annual expense budget at approximately \$400,000 per year.

Visits, revenue information, and estimated operating expenses from the various sources are summarized in the table below to provide a picture of past operations of the ski area.

**Table 7. Teton Pass Historical Information**

	2017/18	2016/17	2015/16	2014/15	2013/14	2012/13	2011/12
Visits	Closed	7,034	5,116	5,692	5,750	6,097	Closed
Days open	-	75	56	66	57	58	-
<b>Revenue</b>	\$0	\$356,247	\$238,664	\$263,919	\$246,511	\$236,539	\$0
<b>Expenses</b>							
Cost of Goods		\$45,000	DATA NOT AVAILABLE				
Direct Labor		\$150,000					
Maintenance/Repairs		\$25,000					
Other direct		\$37,000					
Payroll taxes		\$90,000					
Insurance		\$30,000					
Property/other taxes		\$5,344					
<b>Total Expenses</b>		<b>\$382,344</b>					
<b>Net Profit (Loss)</b>		<b>(\$26,097)</b>	DATA NOT AVAILABLE				

The Key Economic Indicator Benchmark Assessment (Table 8) compiles the information from Teton Pass, the comparable resorts Kottke-modified benchmark, and the smallest category from the NSAA Economic Analysis.

**Table 8. Teton Pass Key Economic Indicator Benchmark Assessment**

	Teton Pass VTFH 1M 2016/17	Kottke Ave. VTFH - 1,396M 2017/18	NSAA VTFH 0-3.5M 2016/17	NSAA VTFH 0-3.5M 2017/18
<b>Number of Areas in Category</b>	1	3	15	15
<b>Ski Area Characteristics</b>				
Season Length (days)	75		87	93
Skiable Terrain (acres)			137	139
Skier Visits	7,034	20,681	61,046	72,393
VTF/Hr (000)	1,012	1,396	2,389	2,389
<b>Ski Area Economic Characteristics</b>				
Adult Weekend Ticket Price	\$39.00	\$33.67	\$33.75	\$33.75
<b>Summary Financial Data - Operations</b>				
Profit (Loss) Before Tax	(\$26,097)	\$77,879	\$310,000	\$854,000
Operating Profit Margin	-7%	14%	6%	13.7%
Profit (Loss) / Skier Visit	(\$3.71)	\$3.77	\$5.08	\$11.80
<b>Revenue Sources &amp; Analysis <sup>1</sup></b>				
Ticket Sales (including Season Passes)	Detail not Available	\$194,365	\$1,821,000	\$2,136,000
Snowplay & other winter ops		\$43,774	\$449,000	\$481,000
Lessons		\$31,791	\$318,000	\$349,000
Food & Beverage		\$110,180	\$1,094,000	\$1,211,000
Rentals		\$51,409	\$456,000	\$565,000
Retail		\$29,805	\$289,000	\$328,000
Lodging		\$29,696	\$315,000	\$326,000
Miscellaneous		\$0	\$0	\$2,000
Other Operating Rev		\$75,725	\$815,000	\$832,000
Property Operation		\$412	\$4,000	\$2,000
<b>Total Revenue</b>	<b>\$356,247</b>	<b>\$567,156</b>	<b>\$5,561,000</b>	<b>\$6,232,000</b>
Total Rev / Skier Visit	\$50.65	\$27.42	\$91.10	\$86.09
Ticket Rev / Skier Visit	Detail not Available	\$9.40	\$29.83	\$29.51
Ticket Yield		27.9%	88.4%	87.4%
Snowplay & other winter ops / Skier Visit		\$2.12	\$7.36	\$6.64
Lesson Rev / Skier Visit		\$1.54	\$5.21	\$4.82
Food & Beverage / Skier Visit		\$5.33	\$17.92	\$16.73
Rentals / Skier Visit		\$2.49	\$7.47	\$7.80
Retail / Skier Visit		\$1.44	\$4.73	\$4.53
Lodging		\$1.44	\$5.16	\$4.50
Other Operating Rev		\$3.66	\$13.35	\$11.49
Property Operation		\$0.02	\$0.07	\$0.03
Ticket Rev / Total Rev	Detail not Available	34.3%	32.7%	34.3%
Snowplay & other winter ops / Total Rev		7.7%	8.1%	7.7%
Lesson Rev / Total Rev		5.6%	5.7%	5.6%
Food & Beverage Rev / Total Rev		19.4%	19.7%	19.4%
Rental Rev / Total Rev		9.1%	8.2%	9.1%
Retail Rev / Total Rev		5.3%	5.2%	5.3%
Lodging		5.2%	5.7%	5.2%
Other Operating Rev		13.4%	14.7%	13.4%
Property Operation		0.1%	0.1%	0.0%
<b>Expenses &amp; Analysis</b>				
Cost of Goods Sold	\$45,000	\$49,853	\$513,000	\$548,000
Direct labor	\$150,000	\$176,842	\$1,796,000	\$1,944,000
Other Operating Expenses	\$187,344	\$262,582	\$2,942,000	\$2,886,000
<b>Total Operating Expenses</b>	<b>\$382,344</b>	<b>\$489,277</b>	<b>\$5,251,000</b>	<b>\$5,378,000</b>
Total Expenses / Skier Visit	\$54.36	\$23.66	\$86.02	\$74.29
Cost of Goods Sold / Skier Visit	\$6.40	\$2.41	\$8.40	\$7.57
Other Op Expenses / Skier Visit	\$26.63	\$12.70	\$48.19	\$39.87
Direct labor / Skier Visit	\$21.32	\$8.55	\$29.42	\$26.85
Cost of Goods Sold / Total Expenses	11.8%	10.2%	9.8%	10.2%
Direct labor / Total Expenses	39.2%	36.1%	34.2%	36.1%

Source: MCDC, NSAA Economic Analysis of US Ski Areas, Kottke End of Season Survey, SE Group

The following table shows the comparison between Teton Pass and average of the three comparison ski areas in more detail. It should be noted that expenses for Teton Pass are estimated budget amounts and not from operating statements.

**Table 9. Teton Pass Income Statement Comparison 2016/17**

	<b>Teton Pass</b>	<b>Average Comparison Ski Area</b>
VTFH	1,012,153	1,396,000
<b>Revenues</b>		
Ticket Sales (including Season Passes)		\$185,656
Snowplay and other Winter Ops		\$45,763
Lessons		\$32,406
Food & Beverage		\$111,511
Rentals		\$46,539
Retail		\$29,457
Lodging		\$32,139
Miscellaneous		\$0
Other Operating Revenues		\$83,096
Property Operation		\$419
<i>Total Revenue</i>	<b>\$356,247</b>	<b>\$566,986</b>
<b>Expenses</b>		
Cost of goods	\$45,000	\$52,312
Direct labor	\$150,000	\$183,104
Maintenance/Repairs	\$25,000	\$22,980
Other direct	\$82,000	\$53,762
Payroll taxes	\$90,000	\$40,717
Power/Electric		\$33,103
Gen. and admin.		\$76,728
Marketing/advertising		\$23,256
Insurance	\$30,000	\$14,072
Land use fees		\$11,350
Property/other taxes	\$5,344	\$14,644
Miscellaneous		(\$81,060)
Depreciation		\$81,322
Amortization		\$197
Operating Leases		\$3,732
Interest		\$5,129
<i>Total Expenses</i>	<b>\$382,344</b>	<b>\$535,348</b>
<b>Profit (loss) before taxes</b>	<b>(\$26,097)</b>	<b>\$31,638</b>

## Key findings

Generally, benchmark analysis provides important information about a ski resort's past operations and how they compare to those of other small, operating ski areas. This comparison provides an operational performance "report card," from which we can understand the strengths and weaknesses of past operations and identify areas for improvement when contemplating future operations. For Teton Pass, as operating statements are not available and information was gathered from multiple sources, this analysis provides a very general picture of the operations at Teton Pass.

- **Skier Visits.** The three comparison resorts all have similar lift capacities to Teton Pass but see significantly higher visitation. While Teton Pass's visitation was above 7,000 for the 2016/17 season – in the preceding years, visitation was between five and six thousand. The comparison resorts all had about 20,000 skier visits over the 2017/18 season. Those resorts are of a similar size and scale to Teton Pass, suggesting that Teton Pass's lift capacity is heavily underutilized. Teton Pass has adequate capacity to increase annual visitation and must do so to be a viable operation (see notes below on Revenue and Expenses).
- **Revenue.** Teton Pass has significantly lower annual revenues than its comparison resorts, as a result of its lower skier visits. Over the 2016/17 season, revenue was \$356,247 and in the four preceding years, revenue was about \$250,000. For the 2017/18 season, the three comparison resorts brought in an average revenue of \$567,156. Teton Pass's revenue per skier visit (\$50.65) was actually significantly higher than that of the comparison resorts (although well below the average of resorts with under 3.5 million VTFH). Regardless of this higher revenue per skier visit, Teton Pass's skier visit totals have been too low for revenue to exceed the expenses it was generating.
- **Expenses.** Teton Pass's expenses were estimated at approximately \$382,344 for the 2016/17 season, which would result in an operating loss of approximately \$26,000 for the season. Former employees of the ski area estimate the annual operating budget at approximately \$400,000 per year. Average operating expenses of the comparison ski areas was approximately \$535,000. Note that this is likely, at least partially, due to higher number of operating days and accommodating more skiers at the comparison resorts.
- **Labor Costs.** Based on the data provided, the estimated \$150,000 labor budget is approximately 82% of the direct labor of the comparison ski areas. This could be due to fewer operating days, lower pay scale, less complex operations at Teton Pass requiring fewer employees, or the use of volunteers. The estimated budget for workers comp and payroll taxes, of \$90,000, is significantly higher and may include other undefined operating costs. Payroll taxes and benefits for resorts of this size are generally 20% to 30% of direct labor. Comparatively, payroll taxes and benefits at Teton Pass were estimated at 60% of direct labor but 22% of direct labor for the comparison resorts.
- **Road Plowing.** It is unclear where or if past costs to plow the road are included in the estimated operating expenses. Road plowing and the condition of the road are significant issues and potential expenses for the ski area. Based on plowing operations at other ski areas, it would cost approximately \$80,000 to plow the road for the season (not including equipment costs).

### Road Plowing

A few other ski areas located at the end of a Forest Service Road are responsible for winter snow removal. The smaller responsible ski areas generally have an arrangement that limits their financial burden. Dodge Ridge is responsible for 3.1 miles of nighttime plowing but the county completes the daytime snow removal. Anthony Lakes is reimbursed by the Oregon Department of Transportation for all snow removal between November 15<sup>th</sup> and April 30<sup>th</sup>. Sales of sno-park parking permits, a statewide winter parking pass, goes towards snow removal on the road to Anthony Lakes.

The larger ski areas responsible for snow removal typically pay for all or most of the cost themselves, at a considerable expense. Bogus Basin, near Boise, is responsible for snow removal on about 13 miles of road. The county does contribute \$30,000 to the ski area for the expense, but for the 2018/19 season, plowing will cost \$170,000 to \$190,000 (approx. \$14/mile). The capital costs for plowing were very high as well, as the ski area purchased two plow trucks for \$250,000 each.



- **Power.** In the past, Teton Pass has relied on a generator to provide power for the lifts and other facilities at the ski area. The diesel for the generator is expensive and a generator limits the potential facilities at the ski area. Likely, the estimated budget for diesel of \$30,000 was predominately for the operation of the generator, however, there are other potential needs for diesel fuel such as grooming machines and plow trucks. This situation results in Teton Pass having an unusually high cost for power. Purchasing power from a utility company or co-op would certainly be less expensive. Using an estimated 120,000 kWh of power and 10 cents per kWh, that would result in an estimated \$12,000 per year of power costs. However, extending powerlines to the ski area would be a multi-million dollar project.

**Power**

Constructing a powerline to the ski area would be a costly endeavor. Conversations with Sun River Electric give an idea of what these costs may look like. Sun River Electric was not able to provide specifics, as a full feasibility study would be necessary. The existing powerline stops eight miles short of the ski area. However, this powerline may not be able to carry the ski area's load and a substation (approx. \$750,000) or connection from other, further existing powerlines may be necessary. As the ski area is on the National Forest, the powerline would need to be buried, increasing the cost of construction by 2.5 times. While there is no exact estimate for the cost of extending the powerline, the project would certainly exceed \$2 million.

## **Conclusions**

Long-term sustained operation of the Teton Pass area will provide the surrounding communities the greatest economic benefit. At this juncture, it would be better for Teton Pass to look to the future, building operating models and scenarios to define how the ski area would operate going forward than attempt to piece together the past from incomplete information. This benchmarking analysis may be used as a guide when developing a viable scenario for a sustainable future operation of Teton Pass. The Kottke and NSAA reporting provides like-sized resort data from existing ongoing operations that make a good barometer or yardstick as scenarios for future operations at Teton Pass are developed.

The challenges for future operations are significant and the following points should be considered as scenarios are developed, to ensure that revenues (from operations or in combination with other financial support), are greater than the cost to operate and maintain the ski area.

- **Future Expenses.** In contemplating future operations at Teton Pass, it is expected that the operators would try to keep expenses low, through strategies such as volunteer labor, limiting the hours of operation etc. However, the comparable figures presented above should be considered when establishing operating expense projections and the subsequent need for revenue generation to cover operations.
- **Marketing.** Increasing non-local visitation will be critical to the sustainability of future operations. Significant marketing will be required to re-establish Teton Pass in the marketplace and attract the visitation necessary to maintain required revenue targets.
- **Future Revenues.** In addition to increasing annual visitation, another opportunity for increasing revenue is to increase the department yield, typically by increasing prices. Revenue by department was not available for this analysis so it is difficult to determine in what areas of operations (i.e., ticket sales, lessons, etc.) the ski area could improve its yield, but future operations should consider pricing strategies carefully. Given the community orientation of the ski area and the importance of providing an affordable experience, it is unlikely there would be an opportunity to significantly increase revenue in this way.
- **Profit.** While the comparable areas used in this analysis do show a small degree of profit, that is likely insufficient to ensure a viable operation. Significant profits are necessary to maintain the physical assets of the resort and have the reserves in place to offset the eventual poor operating season.