Size Matters: The Value of VTFH

Ski areas are all unique—each one has a different combination of terrain, lifts, employees, services, and overall feel. “We’re not like [INSERT NAME OF SKI AREA DOWN THE ROAD],” I have heard many times in conversations with various owners and operators.

But resorts have similarities too, and comparing your ski area to a similar peer group—often called benchmarking—can help you understand your strengths or shortcomings on a variety of issues, including financial results, customer satisfaction, operational metrics, visitor mix, and other topics.

Picking the right group to compare your ski area with is obviously the most important part in developing meaningful benchmarks. Most ski areas consider themselves to be small, medium, or large (or even extra-large). What actually defines these size groups? Downhill snowsports visits, skiable acreage, total revenue, gross fixed assets, or the number of employees are all indicative of a ski area’s size. However, the best statistic for benchmarking purposes—one that most accurately defines a ski area’s uphill infrastructure—is Vertical Transportation Feet per Hour (VTFH).

THE BASICS OF VTFH

VTFH might be awkward to say but it’s easy to calculate. VTFH is the product of two numbers: the number of people the lift transports per hour, and the lift’s vertical rise (in feet). The sum of the VTFH for each lift at your ski area represents your resort’s total VTFH and what delineates your ski area as large or small.

Because the product is a big number, it is often expressed in thousands. Very small ski areas have a total VTFH of less than 3 million (or 3,000 thousands); smaller mid-sized areas are generally in the 3 to 6 million range; and larger mid-sized resorts range from 6 to 12 million VTFH. Finally, large (or extra-large) ski areas have over 12 million VTFH. For example, a quad chairlift with a capacity of 2,200 people per hour that rises 500 vertical feet would have a VTFH of 1,100,000.

The origin of VTFH is murky, but it has been in use since at least the mid-1960s. “It just sort of evolved,” said Joe Cushing, an early principal at SE Group, one of the first firms to specialize in ski resort planning. “As ski areas grew, it became apparent that you’ve got to have a number to tell you what your uphill capacity is. VTFH became a critical part of the analysis of the overall ski area’s planning and balance.”

VTFH is the best metric to accurately characterize the size of ski areas because the combination of the two figures—the number of people that can be moved per hour and the vertical rise of the lift—makes for a holistic measure of uphill infrastructure. It is also specific to each lift; not only do gondolas and surface lifts provide different contributions to total VTFH, the same type of lift can also have different VTFH numbers.

“Two different high-speed quads can run at variable speeds, cover more or less vertical, or even have a different number
of chairs on the line,” noted Ted Beeler, president of SE Group. “These factors would all impact the lift’s VTFH.”

**USING VTFH IN RESORT PLANNING**

Other than its value as a reliable method for determining a resort’s size, the VTFH is an important indicator of whether your skier visits are in sync with your lift infrastructure, as Joe Cushing mentioned. The number of people a lift can transport, and the time it takes to transport them to the top terminal (which depends in part on the vertical rise of the lift), must be in balance with the number of trails, and the type of skier those trails serve, off that lift.

“There needs to be a balance of terrain, the density of the skiers on that terrain, and the type of terrain the lift serves,” observed Beeler.

If the downhill capacity of the trail network is out of balance with the uphill capacity of the lift system, the result can be crowded trails; such a situation is not only uncomfortable for your guests but also potentially dangerous because of increased risk for collisions. On the flip side, too much terrain and not enough VTFH leads to long lift lines and underutilized trails. “That hurts the bottom line,” noted Cushing.

Also important is the ability to manage VTFH to meet skier/snowboarder demand throughout the season, even on a daily basis. Many ski areas have some lifts that are redundant and are only operated during busy days. Beeler noted that, “operational efficiency is the name of the game. Only running certain lifts on slow days reduces labor and power costs.”

**BENCHMARKING**

As mentioned, VTFH can also be used to categorize your ski area into the right peer group for benchmarking purposes. Why not use skiable acreage or downhill snowsports visits? The former is only a measure of physical size and not capacity, while the latter is often a confidential figure.

Comparisons to other ski areas are only valid if those other ski areas share some common attributes. Many NSAA reports, including the *Kottek National End of Season Survey* and the *Economic Analysis of U.S. Ski Areas*, use VTFH as the variable to delineate the size breakdowns in the reports. Knowing what your own ski area’s VTFH is will allow you to make accurate comparisons to your closest peer group.

VTFH is a very useful number that every ski area should know and use. Whether it’s used for planning or benchmarking purposes, it’s a critical figure for your ski area. Certain unique aspects of each resort can’t be quantified, but VTFH is definitely a number you can put your finger on.