
**KOTTKE NATIONAL
END OF SEASON SURVEY 2015/16
P R E L I M I N A R Y R E P O R T**

May 2016

NATIONAL
SKI AREAS
ASSOCIATION



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KOTTKE NATIONAL END OF SEASON SURVEY 2015/16 P R E L I M I N A R Y R E P O R T

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Prepared by
National Ski Areas Association
In conjunction with
RRC Associates, Inc.

A C K N O W L E D G M E N T S

Sincere appreciation goes out to the following in making this study possible.

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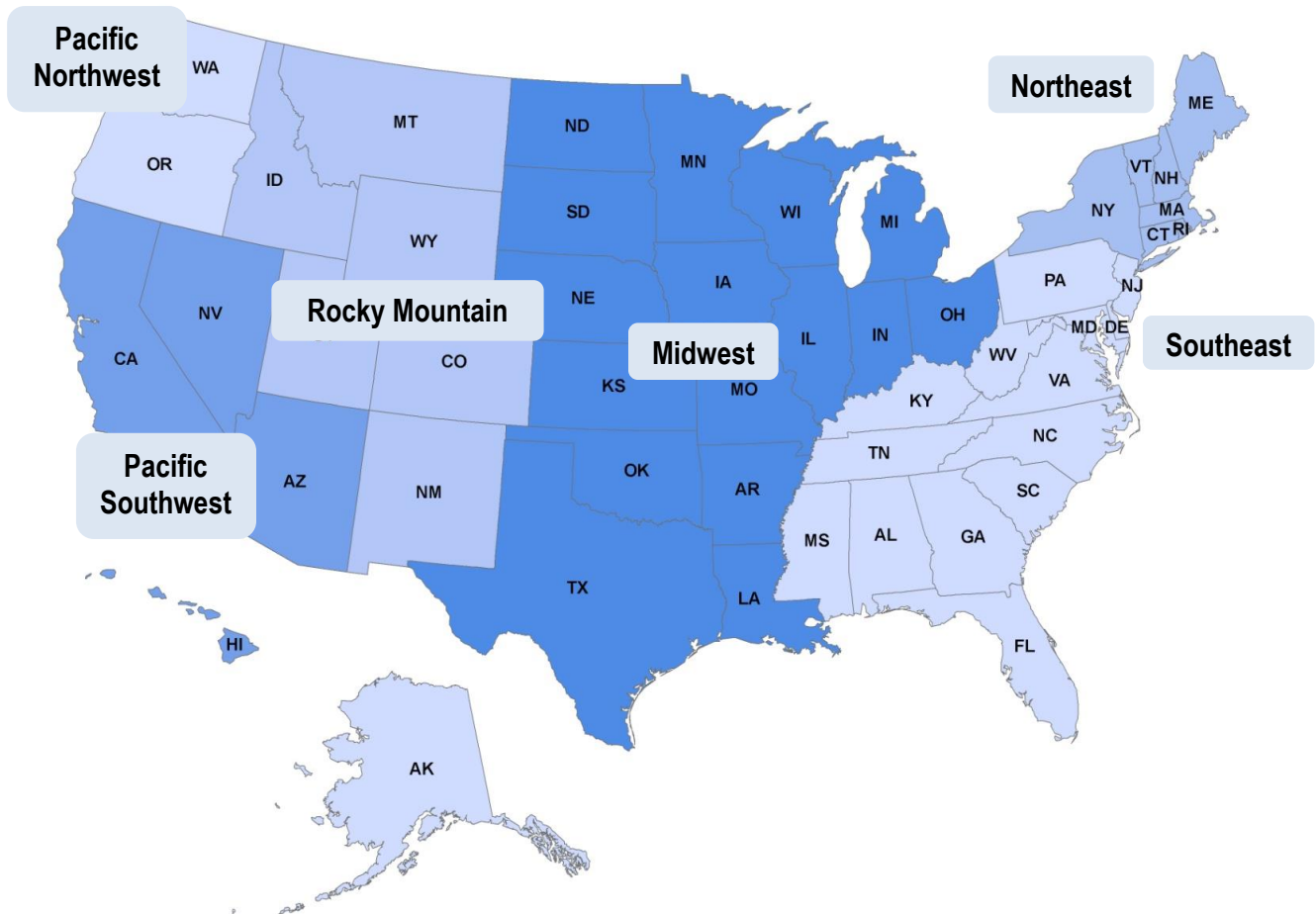
KOTTKE NATIONAL END OF SEASON SURVEY 2015/16

PRELIMINARY REPORT

By RRC Associates

May 12, 2016

REGIONAL BOUNDARIES FOR END OF SEASON ANALYSIS



Key Highlights of the 2015/16 Season

- Downhill snowsports visits up 0.6 percent to 53.9 million visits. Total downhill snowsports visits nationally are preliminarily estimated at 53.9 million visits, a slight increase of 0.6 percent from 2014/15. Visits are preliminarily estimated to have been up in the Western half of the country and down in the Eastern half of the nation. The biggest rebounds from a poor 2014/15 season were witnessed in the Pacific Northwest (up 141.5 percent) and Pacific Southwest (up 53.1 percent), while the Rocky Mountain region had its best season ever in terms of snowsports visits (up 7.6 percent). The performance in these three regions (particularly the Rocky Mountain region, which is the largest for downhill snowsports visits) offset the difficult season for ski areas in the

Eastern half of the country; large losses were experienced in the Southeast (down 30.3 percent), Northeast (down 28.1 percent), and Midwest (down 16.7 percent).

For additional perspective, visits nationally in 2015/16 were down 4.5 percent from the 2013/14 season, and down 5.2 percent from the 2012/13 season.

- Regional fortunes varied considerably in long-term perspective. The 2015/16 season was particularly difficult in historic terms in the Southeast, Northeast, and Midwest regions. The Midwest had its worst season in 38 years of downhill snowsports visit tracking in this Kottke report, while the Southeast had its second worst season (only the 1978/79 season was worse), and the Northeast its fourth worst season.

By contrast, the Western regions experienced very strong to record winter seasons, with both the Rocky Mountain and Pacific Northwest regions having their best seasons ever. The Pacific Southwest region recorded its 12th best season in the 21-year history of visits in that region.

- Nation down 4.6 percent from 10-season average (2006/07 – 2015/16); regions vary. Over the last ten seasons, the average number of visits recorded nationally was 56.5 million visits. The 2015/16 season, at a preliminary 53.9 million visits, was down 4.6 percent from the ten-year average. The Rocky Mountain (+8.2 percent over its 10-year average), Pacific Southwest (+8.0 percent), and Pacific Northwest (+28.1 percent) regions each substantially exceeded their 10-season averages, while the Southeast (-24.7 percent), Northeast (-24.9 percent), and Midwest (-19.5 percent) each fell below their 10-season averages.
- Visitation nationally was variable by month, although weakest later in the season. Visitation by month was variable nationally on a year-over-year basis, generally strongest nationally in January and February. Relative to the 2014/15 season, visits were up 7 percent in October/November, down 10 percent in December, up 6 percent in January, up 9 percent in February, down 8 percent in March, and down 13 percent in April. Patterns were variable by region, although, consistent with overall visits, the three Eastern regions were generally down in all months of the season, while the three Western regions were typically up in each month of the winter.
- Just over half of ski areas had decreased visits. A majority of the 172 areas reporting data for each of the past two seasons had a decrease in visits (56 percent), while 44 percent reported gains. The median resort had an 8.8 percent loss in visits, and 25 percent of resorts had losses of 28 percent or more, indicating that many resorts experienced significant declines this season. At the same time, one-quarter of resorts had gains of 19 percent or more in terms of visits.
- Number of open and operating ski areas declined. The number of open and operating U.S. ski declined to 463 in the 2015/16 season, down from 470 each of the past two seasons. The reduction in the total number of operating ski areas is impacted, in part, by mergers of adjacent ski areas, effectively combining two resorts into one. Additionally, some ski areas have closed and others re-opened in the recent past, contributing to the fluctuation in the total number of operating US ski areas.
- Natural snowfall up 17 percent nationally. Average inches of ski area snowfall rebounded to an average of 163 inches per reporting ski area in 2015/16, up from 140 inches, an increase of 17 percent from 2014/15. However, regional snowfall totals were mixed in comparison to last winter, with significant declines in the the Northeast (71 inches, down 56 percent from 164 inches) and Southeast (49 inches, down 27 percent from 66 inches). Average snowfall per

reporting ski area was down slightly in the Midwest region, down 4 percent to 75 inches in 2015/16 (from 78 inches in 2014/15). The other three regions exhibited increases in natural snowfall from the season prior, with very strong increases seen in the Pacific Southwest (up 260 percent to 344 inches from only 96 inches) and the Pacific Northwest (up 172 percent to 397 inches from 146 inches in 2014/15). As well, natural snowfall rose in the Rocky Mountains (up 32 percent to 265 inches from 201 inches).

In the 25 seasons of available Kottke records (1991/92 – 2015/16), the 2015/16 season was preliminarily estimated to have had the lowest snow on record for responding resorts in the Northeast region, and the Southeast had its 5th worst snowfall season. Snowfall in the 2015/16 season was 51 percent below the 25-season average in the Northeast and 29 percent below average in the Southeast. On the other hand, the Pacific Southwest and Pacific Northwest were well above their long-term snowfall totals, while the Midwest and Rocky Mountain regions were fairly consistent with norms, each within +/- 2 percent of their respective 25-year averages.

- Average days open reduced by 7 percent nationally, to an average of 112 days this season from 119 days last season, clearly related to snow conditions. The operating winter season was abbreviated in the Northeast (108 days on average per reporting ski area, down 19 percent), Midwest (down 18 percent to 94 days of operation), and Southeast (down 33 percent to 73 days). On the other hand, increases in the number of days open rose in the Rocky Mountains (134 days, up 4 percent), Pacific Southwest (141 days, up 30 percent) and the Pacific Northwest (111 days, up 78 percent). The rebounds in the two Pacific regions was a very positive finding of the season overall.
- Western resorts were comparatively likely to open early, Eastern resorts tended to open late. Nationwide, about half of reporting US ski areas opened late (52 percent), one-third opened on the projected opening day (34 percent), and the remaining one-seventh opened early (14 percent). Resorts were more likely to open early than late in the Pacific Southwest (44 percent early, 6 percent late) and, to a lesser degree, in the Rocky Mountain region (17 percent early, 12 percent late). Ski areas in the other regions were more likely to begin their season late rather than early: the Southeast (100 percent late vs. 0 percent early), Northeast (68 percent late vs. 7 percent early), Midwest (82 percent late vs. 4 percent early), and Pacific Northwest (50 percent late vs. 33 percent early).
- More resorts closed early than late. Clearly related to regional snowfall, more resorts closed early (48 percent) than late (10 percent) this season, with four in ten (42 percent) closing on their projected closing date. Midwest (85 percent), Southeast (81 percent), and Northeast (72 percent) ski areas were particularly likely to close early. Meanwhile, resorts in the other three regions were most likely to close on time (55 to 76 percent closed on their projected closing date).
- Incidence of mid-season closures up slightly. This season, 44 percent of responding areas reported one or more unscheduled midseason closures, up marginally from 41 percent last season. Resorts in the Pacific Northwest, Midwest, and Southeast were most likely to experience one or more midseason closures (80, 72, and 67 percent, respectively). Other regions, including the Northeast (48 percent), Pacific Southwest (27 percent), and Rocky Mountains (11 percent), were less likely to report unscheduled closures. Mid-season closures were typically associated with weather (wind, rain) or power issues.
- Snowboarding's proportion of visits down slightly, to 26.1 percent of visits this season, down marginally from 26.7 percent in 2014/15. Minor declines in the proportion of snowboarding visits

were observed in all six regions and in three of the four size groupings, suggesting a consistent, if slight, slowing of the contribution to total visits from snowboarders.

- Overnight visitation remains the majority of visits. Overnight visitation continues to represent the majority of visits nationally, accounting for 52.1 percent of total visits, down slightly from 52.9 percent a year ago. Conversely, day visitation accounted for 47.9 percent of visits, up somewhat from 47.1 percent last season.
- International visitation retreated this season, to 5.5 percent of total national visits from 7.0 percent last season. Canadian visitation was down to 2.2 percent of total visits (from 3.0 percent last winter), while other international visitation was also off at 3.3 percent of visits (down from 4.0 percent in 2014/15). Changes were relatively minor in most of the geographic regions, though a decline in the proportion of visits from Canadian customers was noted in the Northeast (down 2.1 percentage points to 7.3 percent of total visits), and a dip in other international visits was recorded in the Rocky Mountain region (down 1.6 percentage points to 4.9 percent of total visits).
- Season pass visits increased in proportionate terms, while paid tickets visitation dipped. On an overall national basis, the results show a proportionate increase in season pass visits this season compared to last (and the strongest in four seasons). Concurrently, the share of visits attributable to paid tickets visits was down. Off-duty employee visits shrank slightly, while complimentary ticket usage was stable. Other non-paid visits were up slightly on a year-over-year basis.
- Season pass unit sales declined by 0.5 percent, while average visits per passholder grew by 2.7 percent. The average ski resort sold 6,594 passes, down 0.5 percent in units from 2014/15. Pass unit sales increased most significantly in the Pacific Northwest (up 13.9 percent to an average of 10,157 passes sold per ski area), followed by the Pacific Southwest (up 6.2 percent to 9,181 passes). Unit sales were down slightly in the Rocky Mountain region (down 0.8 percent to 10,852 passes), followed by the Northeast (down 3.9 percent to 5,242), Midwest (down 4.5 percent to 2,868), and Southeast (down 10.0 percent to 4,179). The average number of visits per passholder was up slightly to 11.8 days this season from 11.5 days last season, an increase of 2.7 percent.
- Ticket prices and ticket yields increased; ticket yield ratio up slightly. The average adult weekend ticket price increased 9.5 percent this season to \$109.08, up from \$99.46. Ticket prices increased in five of the six geographic regions and in all four size categories. Average ticket yields rose 11.2 percent nationally this past winter to \$51.56. The ticket yield ratio increased nationally this season to 47.3 percent from 46.6 percent last season, as gains in ticket yield (up 11.2 percent) outpaced increases in ticket price (up 9.7 percent). This result reverses a downward trend seen for ticket yield ratio over the past several seasons.
- Lesson volumes and lessons:visits ratio both declined. Aggregate lessons given declined by 2.1 percent nationally this season. The share of visits which included a lesson (i.e. lesson penetration ratio) dropped to 7.4 percent in 2015/16 from 7.7 percent the season prior. Maintaining or increasing the lesson penetration ratio remains important for the long-term growth of snowsports.
- Capital expenditures up 19 percent in 2015/16, projected to dip 6 percent in 2016/17. Altogether, total expenditures on capital improvements by survey respondents increased by 19 percent from 2014/15 (\$243.7 million) to 2015/16 (\$290.1 million); capital expenditures are preliminarily projected to dip to \$273.5 million (down 6 percent) in 2016/17. It should be cautioned that a small number of large projects can heavily impact the numbers, and that not all ski resort capital improvement projects are represented in the data due to non-response from some resorts.

- **Challenges and opportunities for resorts in the future.** Looking to the future, resorts were asked to identify the factors that will have the biggest impact on business in the next five years. By far, the weather (typically consistent/predictable weather) and the economy continue to be the two most frequently cited factors. Other challenges identified include demographics and the ability to attract Millennial participants, finding adequate staffing, access to capital to fund infrastructure improvements, increased costs for energy/power/utilities, labor (particularly minimum wage increases), and health care, and competing activities/limited time for skiers, among others. Meanwhile, opportunities cited included increased summer opportunities, technology and associated efficiencies, improved air and ground access, growing local populations, pass partnerships, and increased lodging options.

Resorts were also asked what they felt were the greatest limitations to attracting and retaining new participants to snowsports. Cost/price point of entry, not enough beginner teaching terrain (especially during peak times), difficulty of learning the sport, remote location/difficult access, lack of free time available to the customer, misperceptions of too cold and/or warm weather, perceived danger/injury risk, and lack of knowledge of how to enter the sport were all noted multiple times in the comments as barriers to attracting and converting beginners. These results underscore the importance of overcoming the perceptions and removing the obstacles for people to learn snowsports.

Methodology

The Kottke National End of Season Survey is designed to provide ongoing tracking of several key barometers of interest and importance to the ski industry. Response to this season's questionnaire has been strong; the data presented reflect the participation of 172 of the nation's 463 operating ski resorts. These 172 resorts account for 40.2 million downhill snowsports visits (about three-quarters of total projected visits), which permits generally reliable estimates of national results to be made at this time.

It should be emphasized, however, that the findings contained in this report are preliminary, and are subject to adjustment. With the NSAA National Convention and Tradeshow occurring in mid-May, the response deadline for the End of Season Survey occurred while several resorts remained open or had yet to make final adjustments to their visitation/attendance numbers. A final and more comprehensive report will be completed this summer. With the expectation of additional resort participation in the final study, as well as more complete and updated data from existing participants, it can be assumed that final statistics will vary somewhat from estimates provided in this preliminary report.

Most of the issues and topics addressed in the survey have remained consistent from year to year to allow trends and patterns to be tracked over time. After several revisions in prior years, the survey was kept unchanged this season.

The NSAA Economic Committee and RRC Associates greatly appreciate the cooperation and involvement of the many participating ski areas which make this report possible.

Downhill Snowsports Visit Results

Total downhill snowsports visits nationally are preliminarily estimated at 53.9 million visits, an increase of 0.6 percent from 2014/15 (Table 1 below). Visits are preliminarily estimated to have been up in the Western half of the country and down in the Eastern half of the nation. The biggest rebounds from a poor

2014/15 season were witnessed in the Pacific Northwest (up 141.5 percent) and Pacific Southwest (up 53.1 percent), while the Rocky Mountain region had its best season ever in terms of snowsports visits (up 7.6 percent). The performance in these three regions (particularly the Rocky Mountain region, which is the largest for downhill snowsports visits) offset the difficult season for ski areas in the Eastern half of the country; large losses were experienced in the Southeast (down 30.3 percent), Northeast (down 28.1 percent), and Midwest (down 16.7 percent).

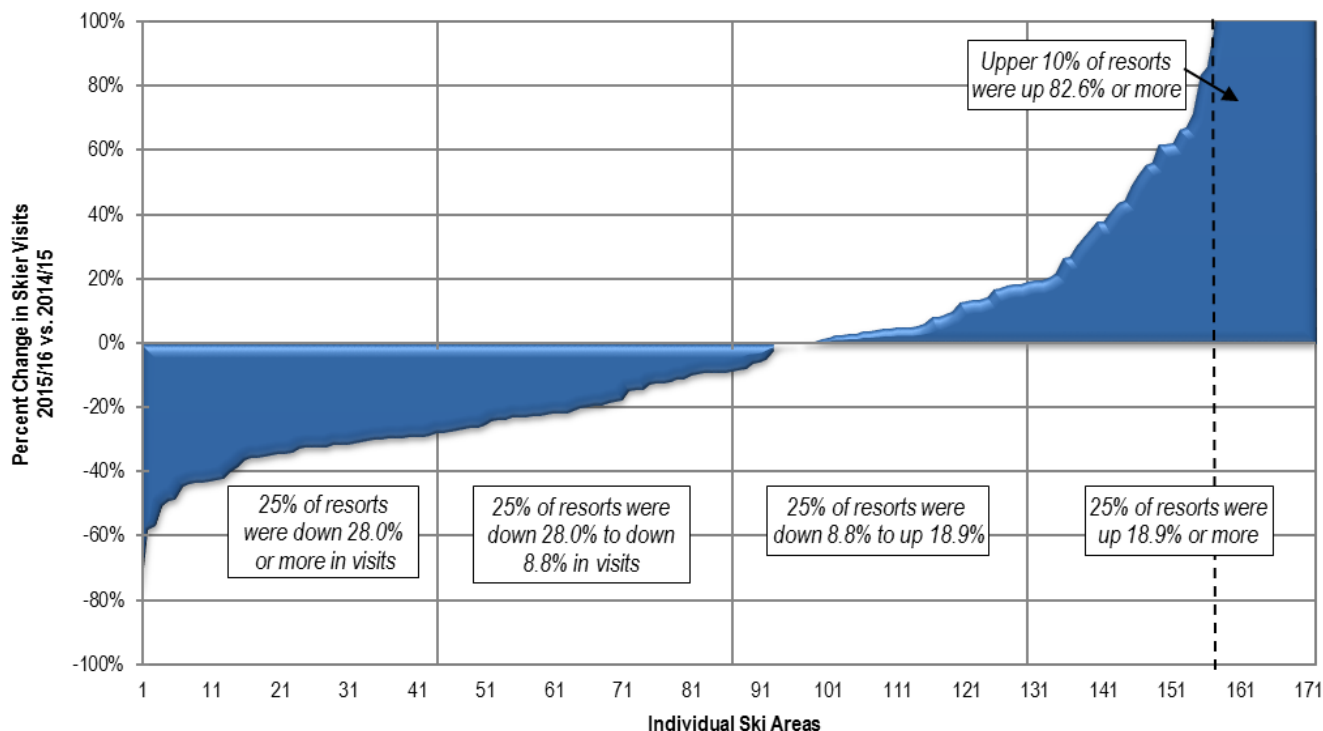
For additional perspective, visits nationally in 2015/16 were down 4.5 percent from the 2013/14 season, and down 5.2 percent from the 2012/13 season.

Table 1
Projected Downhill Snowsports Visits by Region
2012/13 to 2015/16

	2015/16	2014/15	15/16 vs. 14/15 % Change	2013/14	15/16 vs. 13/14 % Change	2012/13	15/16 vs. 12/13 % Change
Northeast	9,592,343	13,332,252	-28.1%	13,385,941	-28.3%	13,333,572	-28.1%
Southeast	3,956,577	5,673,328	-30.3%	5,769,158	-31.4%	5,155,138	-23.2%
Midwest	5,813,840	6,981,766	-16.7%	7,694,705	-24.4%	7,273,465	-20.1%
Rocky Mountain	22,350,036	20,767,721	7.6%	21,099,945	5.9%	19,800,404	12.9%
Pacific Southwest	7,381,945	4,822,329	53.1%	5,154,112	43.2%	7,140,141	3.4%
Pacific Northwest	4,830,563	2,000,229	141.5%	3,387,203	42.6%	4,201,508	15.0%
Total	53,925,303	53,577,625	0.6%	56,491,064	-4.5%	56,904,228	-5.2%

Despite the relative stability of the overall national visit figure, results at individual ski areas were highly variable. A slight majority of areas reporting data for each of the past two seasons had a decrease in visits (56 percent), while 44 percent reported gains (Figure 1). The median resort had an 8.8 percent loss in visits, and 25 percent of resorts had losses of 28 percent or more, indicating that many resorts experienced significant declines this season. At the same time, one-quarter of resorts had gains of 19 percent or more in terms of visits, and 8 percent of ski areas were up over 100 percent. The ski areas with the most significant gains over the 2014/15 season are primarily located in the Pacific Southwest or Pacific Northwest regions.

Figure 1
Ranked Distribution of Reporting Snowsports Resorts
by Percentage Change in Downhill Snowsports Visits, 2015/16 vs. 2014/15



Comments About the Season, and Future Challenges and Opportunities

In an open-ended question, resorts were asked to comment on factors which most affected this season's total visits, either positively or negatively. Weather and snowfall were the dominant topics, as is typically the case.

- In the Northeast region, many ski areas commented on weather issues: unseasonably warm throughout the season, but particularly in the early period of the winter, such that some ski areas were not able to open until after the Christmas holiday. Low natural snowfall, rain, and freeze/thaw cycles kept snowmaking teams continuously resurfacing the same trails over and over again throughout the season. At the same time, a deep cold snap hit the region during the President's Day period, suppressing visits.
- Southeast ski areas also commonly reported warm temperatures and low natural snowfall throughout the season, contributing to a low number of operating days. Many ski areas in this

region commented that they were unable to open until after New Year's Day.

- Comments from ski area operators in the Midwest indicate that this region experienced similar conditions to the Northeast and Southeast: warm temperatures, rain, and a shortened season on both the front and back ends.
- Resorts in the Rocky Mountains tended to cite good snowfall as a positive to their season. Season pass sales and partnerships, new lifts, and increased air seats into some airports also contributed to an overall positive season in this region.
- Ski areas in the Pacific Southwest reported much improved snow conditions over the past several years, which, combined with pent up demand, resulted in a stronger season in the Pacific Southwest.
- Similarly, in the Pacific Northwest, improved snowfall resulted in greater interest from local and regional populations. Early snowfall started the season off well and provided momentum for most of the rest of the winter.

Looking to the future, resorts were asked to identify the factors that will have the biggest impact on business in the next five years. By far, the weather (typically consistent/predictable/cold weather) and the economy continue to be the two most frequently cited factors. Other challenges identified include demographics and the ability to attract Millennial participants, finding adequate staffing, access to capital to fund infrastructure improvements, increased costs for energy/power/utilities, labor (particularly minimum wage increases), and health care, and competing activities/limited time for skiers, among others. Meanwhile, opportunities cited included increased summer opportunities, technology and associated efficiencies, improved air and ground access, growing local populations, pass partnerships, and increased lodging options.

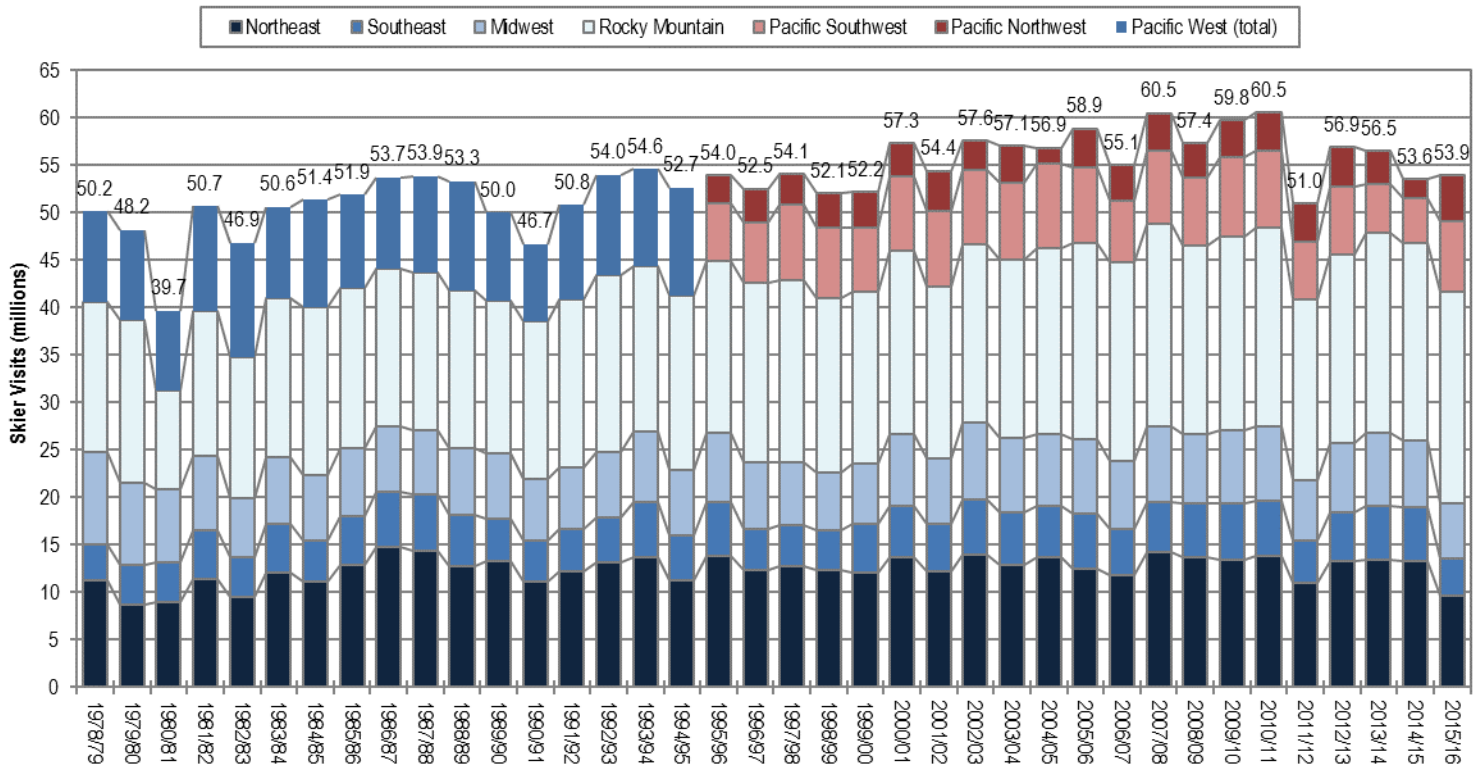
Resorts were also asked what they felt were the greatest limitations to attracting and retaining new participants to snowsports. Cost/price point of entry, not enough beginner teaching terrain (especially during peak times), difficulty of learning the sport, remote location/difficult access, lack of free time available to the customer, misperceptions of too cold and/or warm weather, perceived danger/injury risk, and lack of knowledge of how to enter the sport were all noted multiple times in the comments as barriers to attracting and converting beginners. These results underscore the importance of overcoming the perceptions and removing the obstacles for people to learn snowsports.

Downhill Snowsports Visit Patterns since 1978/79

Figure 2 to follow summarizes downhill snowsports visits in the U.S. as they have been estimated since 1978/79. At a preliminary estimate of 53.9 million visits, the 2015/16 season was 0.9 percent above the 38-season average of 53.5 million visits, and ranked as the 18th best in 38 seasons.

By region, the Rocky Mountains and Pacific Northwest each had their best season on record (22.3 percent and 34.8 percent above each region's respective long-term average). The Pacific Southwest had its 12th-best season (2.5 percent above its long-term average). By contrast, the Midwest was 19.6 percent below its long-term average (most difficult season on record), with the Southeast (down 21.4 percent from its long-term average, second most challenging season on record) and Northeast (down 22.9 percent, 4th worst season) regions also posting historically difficult seasons.

Figure 2
Estimated Downhill Snowsports Visits by Region, 1978/79 - 2015/16



Note: Pacific West visits are segmented by sub-region (Pacific Southwest and Pacific Northwest) from 1995/96 – 2015/16. Pacific West visits are reported in aggregate total for 1978/79 – 1994/95 (sub-regional breakouts unavailable).

Downhill Snowsports Visit Patterns since 2006/07

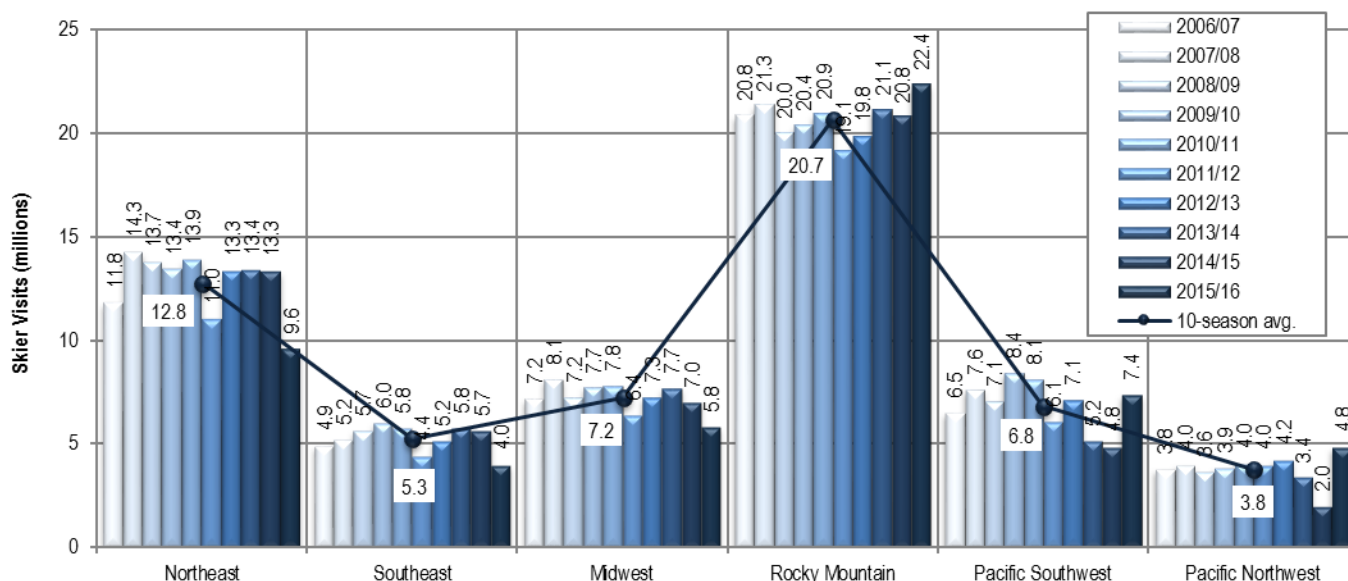
Figure 3 to follow illustrates the number of downhill snowsports visits by region for each of the past 10 seasons, as well as the average level of visits over the 10-year period. It also illustrates the relative magnitude of each region in terms of annual downhill snowsports visits.

In 2015/16, the Pacific Southwest, Pacific Northwest and Rockies each exceeded their 10-season averages, while the Southeast, Northeast and Midwest each fell below their 10-season norms.

- **National:** Over the last ten seasons, the average number of visits recorded nationally was 56.5 million visits. The 2015/16 season, at a preliminary 53.9 million visits, was down 4.6 percent from the ten-year average.
- **Northeast:** At 9.6 million visits in 2015/16, the Northeast was down 24.9 percent from its ten-year average of 12.8 million visits.
- **Southeast:** Recording 4.0 million visits in 2015/16, the Southeast was down a similar 24.7 percent from its ten-year average of 5.3 million visits.
- **Midwest:** The Midwest posted 5.8 million visits in 2015/16, down 19.5 percent from its ten-year average of 7.2 million visits.

- **Rocky Mountains:** With 22.4 million visits in 2015/16, the Rockies were up 8.2 percent from the ten-year average of 20.7 million visits.
- **Pacific Southwest:** This region was above its ten-year average of 6.8 million by 8.0 percent, notching 7.4 million visits in 2015/16.
- **Pacific Northwest:** At 4.8 million visits in 2015/16, the Pacific Northwest was up 28.1 percent from its ten-year average of 3.8 million visits.

Figure 3
Estimated Downhill Snowsports Visits by Region
2006/07 - 2015/16



Visitation by Month of Season

Visitation by month was variable nationally on a year-over-year basis, generally strongest nationally in January and February. Relative to the 2014/15 season, visits were up 7 percent in October/November, down 10 percent in December, up 6 percent in January, up 9 percent in February, down 8 percent in March, and down 13 percent in April.

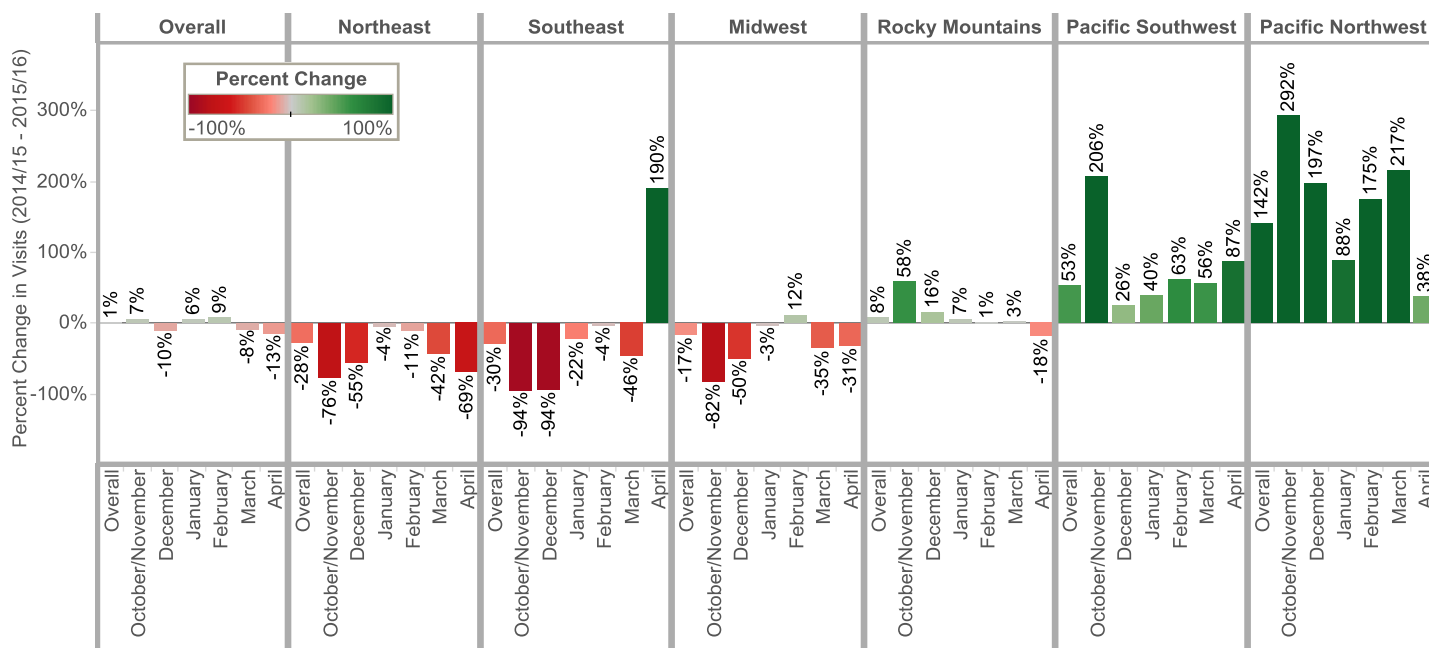
It should be noted that the proportion of visits occurring in the late season will end up being revised somewhat, since some resorts, particularly in the Western part of the country, were still operating as of the survey due date, and the numbers presented here reflect their best estimate of April and late season visitation, rather than actual visitation.

Variability was observed for visits by month across the various geographic regions of the country, as detailed in the discussion below.

- **Northeast:** The Northeast, down 28.1 percent overall in visits this season, experienced losses in visits relative to last winter in every month of the season. Visits were down in October/November (-76 percent), December (-55 percent), January (-4 percent), February (-11 percent), March (-43 percent), and down in April (-69 percent).

- ***Southeast:*** Southeast visitation, down 30.3 percent overall in visits from 2014/15, was also consistently down throughout the season (with the exception of April, a relatively minor month for visits). Visits were down in October/November (-94 percent), December (-94 percent), January (-22 percent), February (-4 percent) and March (-46 percent), before rising in April (up 190 percent from a small base in 2014/15).
- ***Midwest:*** Resorts in the Midwest (down 16.7 percent overall) had decreased visitation in all months except February. Visits were down 82 percent in October/November, down 50 percent in December, down 3 percent in January, up 12 percent in February, down 35 percent in March, and down 31 percent in April.
- ***Rocky Mountains:*** The Rocky Mountain region, up 7.6 percent overall, enjoyed gains in all months except April. Visits in this region were up in October/November (+58 percent), December (+16 percent), January (+7 percent), February (+1 percent), and March (+3 percent), but a loss in April (-18 percent).
- ***Pacific Southwest:*** The Pacific Southwest, up 53.1 percent overall, experienced gains in each month of the season. October/November was up 206 percent, as were December (+26 percent), January (+40 percent), February (+63 percent), March (+56 percent), and April (+87 percent).
- ***Pacific Northwest:*** The Pacific Northwest posted a record season in 2015/16, up 141.5 percent in visits over 2014/15. Visits were up in every month of the season, including October/November (+292 percent), December (+197 percent), January (+88 percent), February (+175 percent), March (+217 percent), and April (+38 percent).

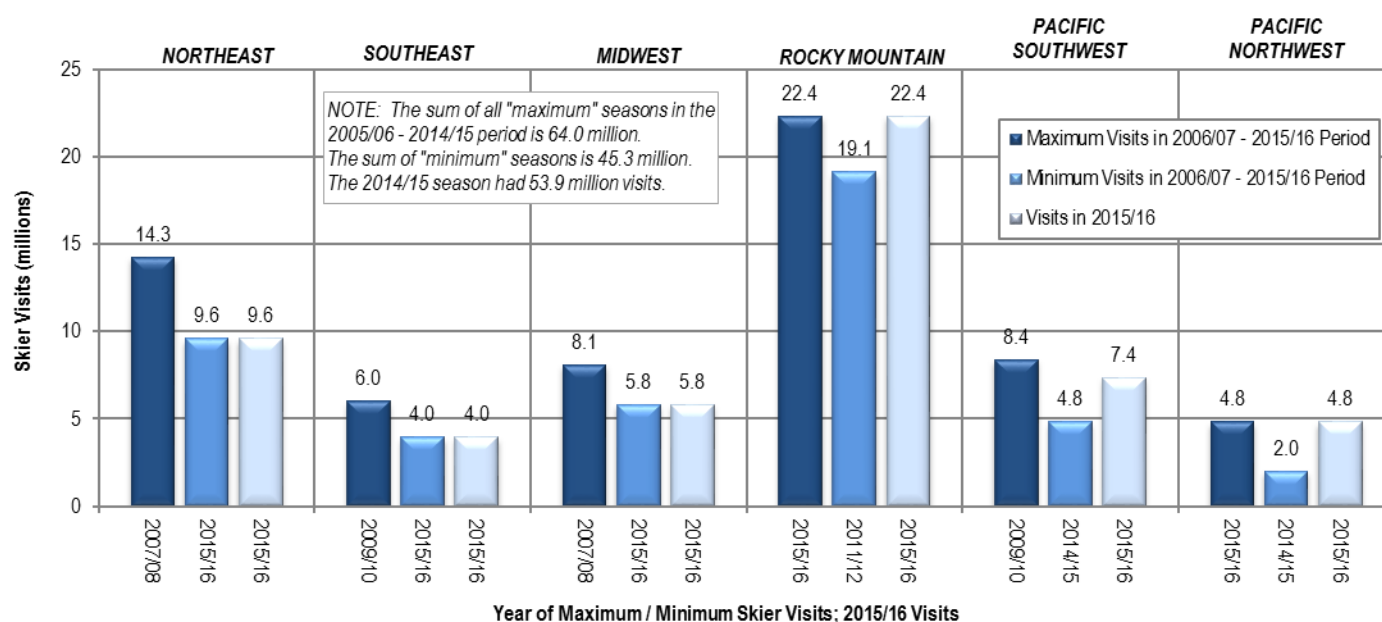
Figure 4
Percent Change in Visits by Month of Season
Comparison by Resort Region—2015/16 vs. 2014/15



Highs and Lows in Downhill Snowsports Visitation since 2006/07

The following graph identifies the highest and lowest downhill snowsports totals that have been reported for each region over the past ten seasons (since 2006/07), as well as the visits recorded in 2015/16. If all regions experienced their lowest totals of the ten-year period during the same season, the national total would be 45.3 million visits. If each region reported its highest total of the ten-year period during the same season, the national total would be 64.0 million visits. The 2015/16 season, at 53.9 million visits, was 8.6 million visits above the low aggregate, and 10.1 million visits below the high aggregate. In the 2015/16 season, both the Rocky Mountain and Pacific Northwest hit record highs, and the Southeast, Midwest, and Northeast all posted a 10-season low.

Figure 5
Maximum and Minimum Downhill Snowsports Visits by Region, 2006/07 - 2015/16
2015/16 Downhill Snowsports Visits



Number of Operating Resorts

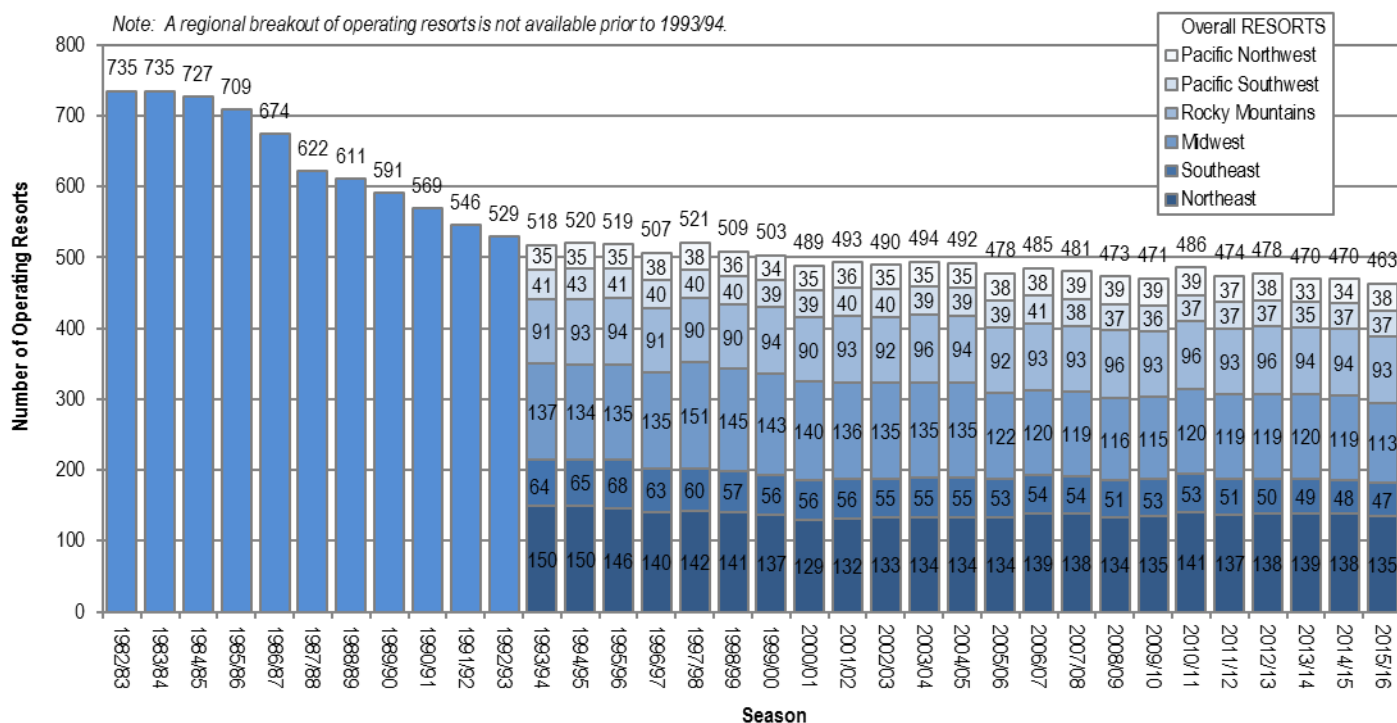
The number of open and operating U.S. ski resorts declined to 463 in the 2015/16 season, down from 470 operating ski areas each of the past two seasons. The net number of operating ski areas this season is estimated to have increased by four in the Pacific Northwest, held steady in the Pacific Southwest, declined by one each in the Rocky Mountains and Southeast, declined by three in the Northeast, and by six in the Midwest.

The reduction in the total number of operating ski areas is impacted, in part, by mergers of adjacent ski areas, effectively combining two resorts into one. Additionally, some ski areas have closed and others re-opened in the recent past, contributing to the fluctuation in the total number of operating US ski areas.

Over the long term, the number of operating resorts declined rapidly between 1983/84 (735 operating resorts) and 1993/94 (518 operating resorts), probably due to the increasingly competitive nature of the

industry and the difficulties of operating smaller, often undercapitalized ski areas (particularly without snowmaking operations), and exacerbated by the stresses of warm and/or dry years. The number of operating resorts hovered in the 503 – 521 range in the 1993/94 – 1999/00 period, fell to a slightly lower range of about 490 ski areas for the 2000/01 to 2004/05 period, then dropped again to the current lower plateau of about 470 – 486 from 2005/06 through 2015/16. The patterns suggest that resorts which survived the shakeout in the mid-1980s through early 1990s have had relatively robust staying power, albeit with some churn in recent seasons (closings and re-openings, particularly among smaller resorts).

Figure 6
Number of Operating Resorts by Region
1982/83 – 2015/16



Snowfall

On an overall national basis, average inches of snowfall at U.S. resorts rebounded to an average of 163 inches per reporting ski area in 2015/16, up from 140 inches, an increase of 17 percent from 2014/15. However, regional snowfall totals were mixed in comparison to last winter.

Snowfall decreased substantially in two of the six regions: the Northeast (71 inches, down 56 percent from 164 inches) and Southeast (49 inches, down 27 percent from 66 inches). Ski areas in these two regions described prolonged periods of warm weather and little snowfall in their comments about the season.

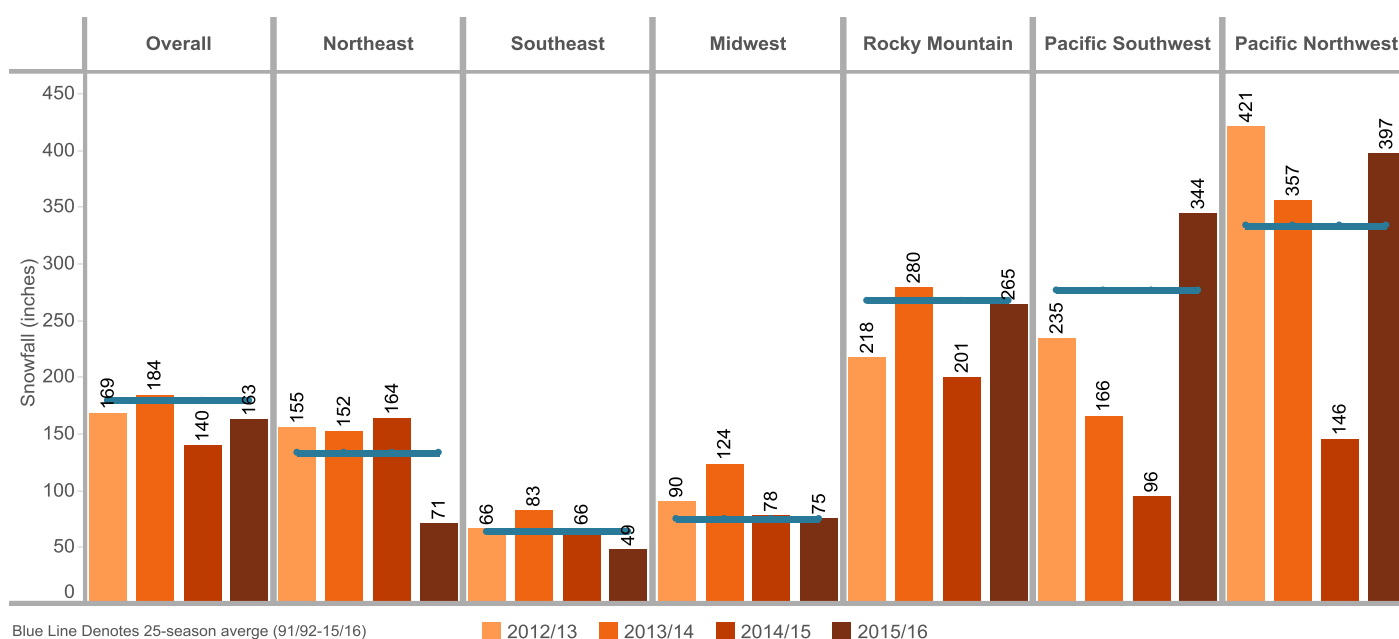
Average snowfall per reporting ski area was down slightly in the Midwest region, down 4 percent to 75 inches in 2015/16 (from 78 inches in 2014/15).

The other three regions exhibited increases in natural snowfall from the season prior, with very strong increases seen in the Pacific Southwest (up 260 percent to 344 inches from only 96 inches) and the Pacific

Northwest (up 172 percent to 397 inches from 146 inches in 2014/15). As well, natural snowfall rose in the Rocky Mountains (up 32 percent to 265 inches from 201 inches).

In the 25 seasons of available Kottke records (1991/92 – 2015/16), the 2015/16 season was preliminarily estimated to have had the lowest snow on record for responding resorts in the Northeast region, and the Southeast had its 5th worst snowfall season. Snowfall in the 2015/16 season was 51 percent below the 25-season average in the Northeast and 29 percent below average in the Southeast. On the other hand, the Pacific Southwest and Pacific Northwest were well above their long-term snowfall totals, while the Midwest and Rocky Mountain regions were fairly consistent with norms, each within +/- 2 percent of their respective 25-year averages.

Figure 7
Average Snowfall by Region: 2012/13 - 2015/16, and 25-Season Average



Note: 2012/13 – 2015/16 results are based on “same-store” resorts, i.e. resorts responding in all four years. Results for the 25-season average are based on the maximum available resort sample in each season.

To better document weather patterns throughout the winter, and associated trends in visitation, the Kottke End of Season survey tracks monthly snowfall. Relative to 13-season averages (2003/04 – 2015/16), snowfall was variable by month of the season on an overall national basis. Snowfall was down 15 percent in October/November, down 1 percent in December, up 11 percent in January, down 39 percent in February, down 8 percent in March, and down 47 percent in April from historic norms. See detail below and in Figure 8 and Figure 9 to follow.

- Snowfall in the Northeast was down in each month of the season, starting in October/November (-79 percent), and continuing through December (-71 percent), January (-25 percent), February (-41 percent), March (-63 percent) and April (-9 percent).
- The Southeast also experienced below-average snowfall throughout most of the season, with the exception of January and April. Declines relative to 13-season averages in this region were noted in October/November (down 98 percent from the 13-season average), December (-93 percent),

February (-23 percent), and March (-73 percent). Snowfall was above long-term norms in January (+63 percent) and April (+103 percent).

- A similar pattern was observed in the Midwest where snowfall was down except in January, March, and April. October/November was down only 1 percent, followed by December (-36 percent), January (+30 percent), February (-11 percent), March (+4 percent) and April (+270 percent).
- The Rocky Mountains had a fairly typical snowfall season overall, with some variability within the season. Compared to 13-year averages, snowfall was down 3 percent in October/November, up 20 percent in December, up 8 percent in January, down 43 percent in February, up 15 percent in March, and down 55 percent in April.
- The Pacific Southwest was above long-term averages in each month except February and April. Snowfall was up in October/November (+42 percent), December (+28 percent), January (+48 percent), and March (+12 percent), and down in February (-47 percent) and April (-64 percent).
- The Pacific Northwest also had a very good snowfall season overall, with increases compared to long-term averages for December (+51 percent), January (+3.2 percent), but below average months in October/November (-43 percent), February (-34 percent), March (-11 percent), and April (-51 percent).

Figure 8
Percent Change in Monthly Snowfall by Region, 2015/16 vs. 13-Season Average

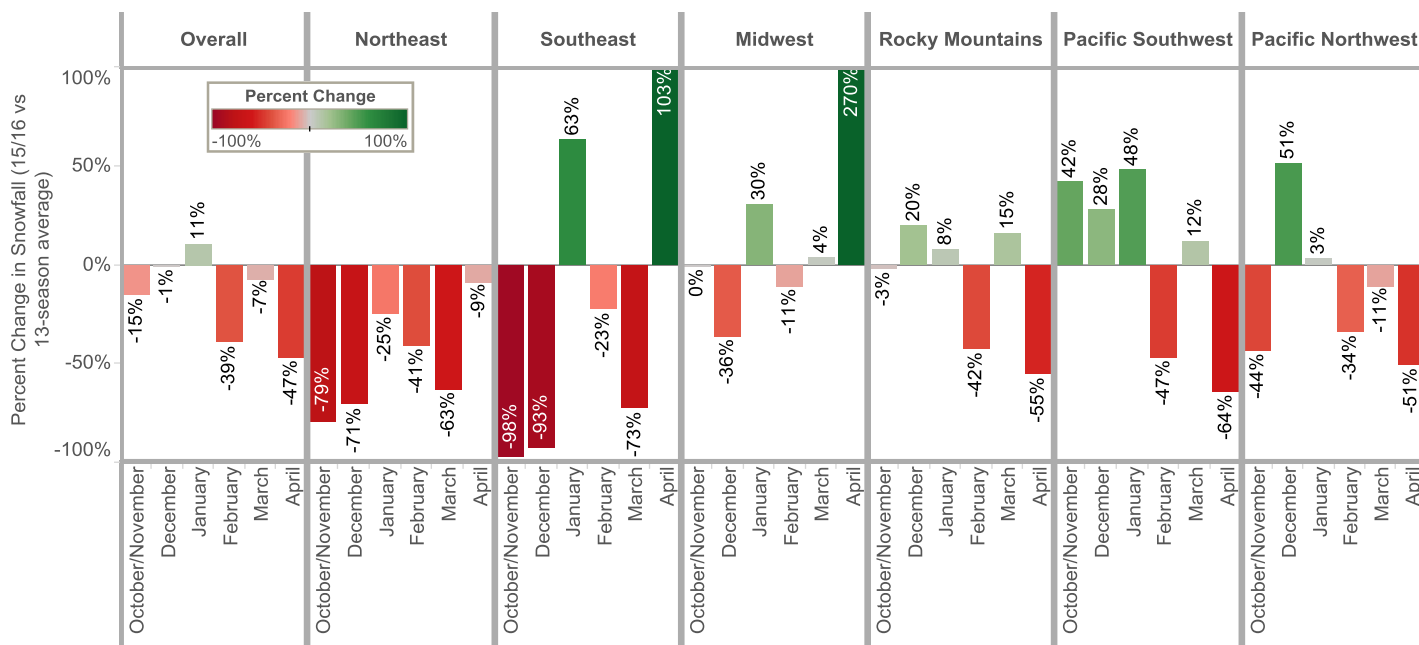
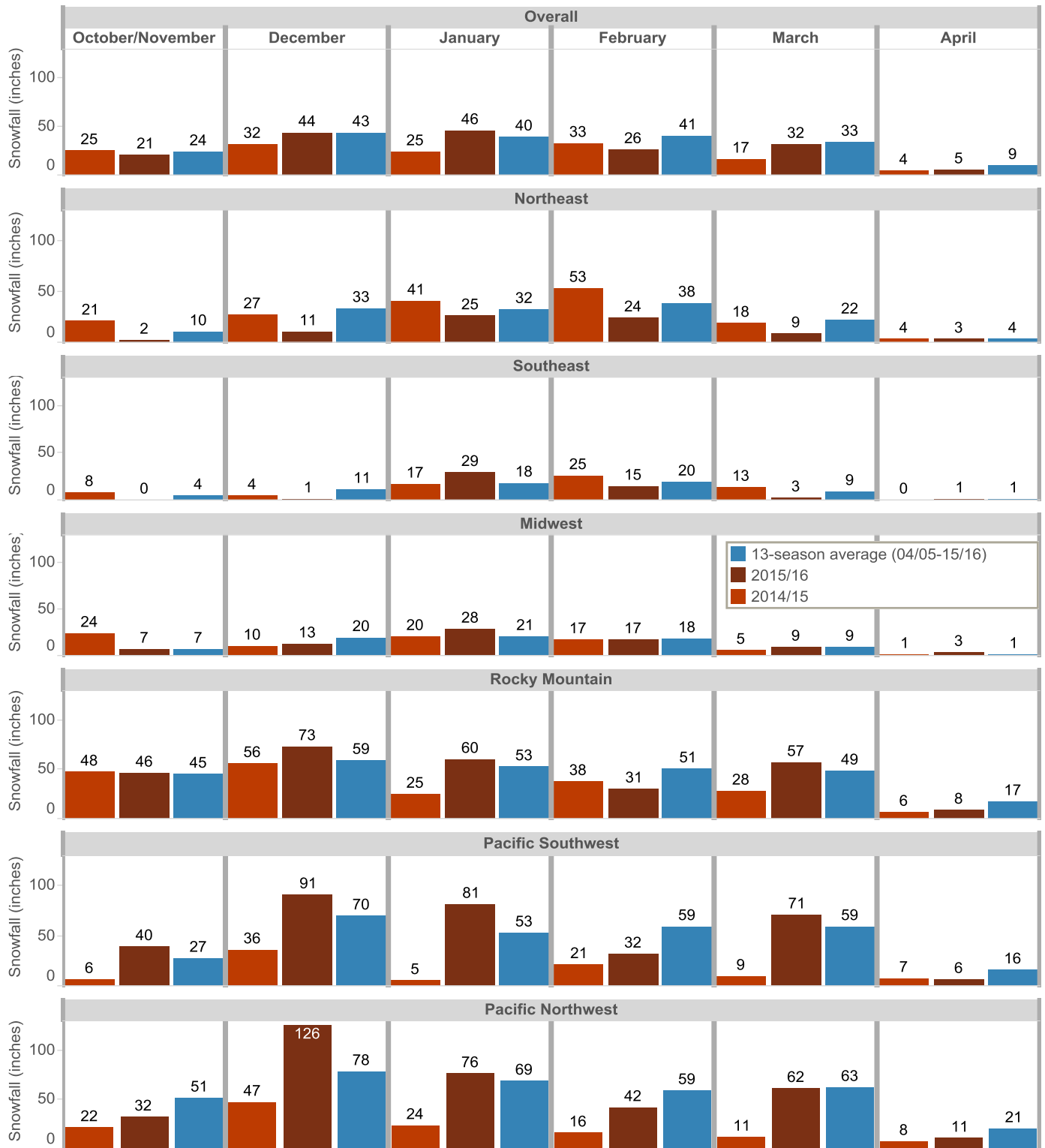


Figure 9
Monthly Snowfall by Region, 2015/16 vs. 2014/15 and 13-Season Average



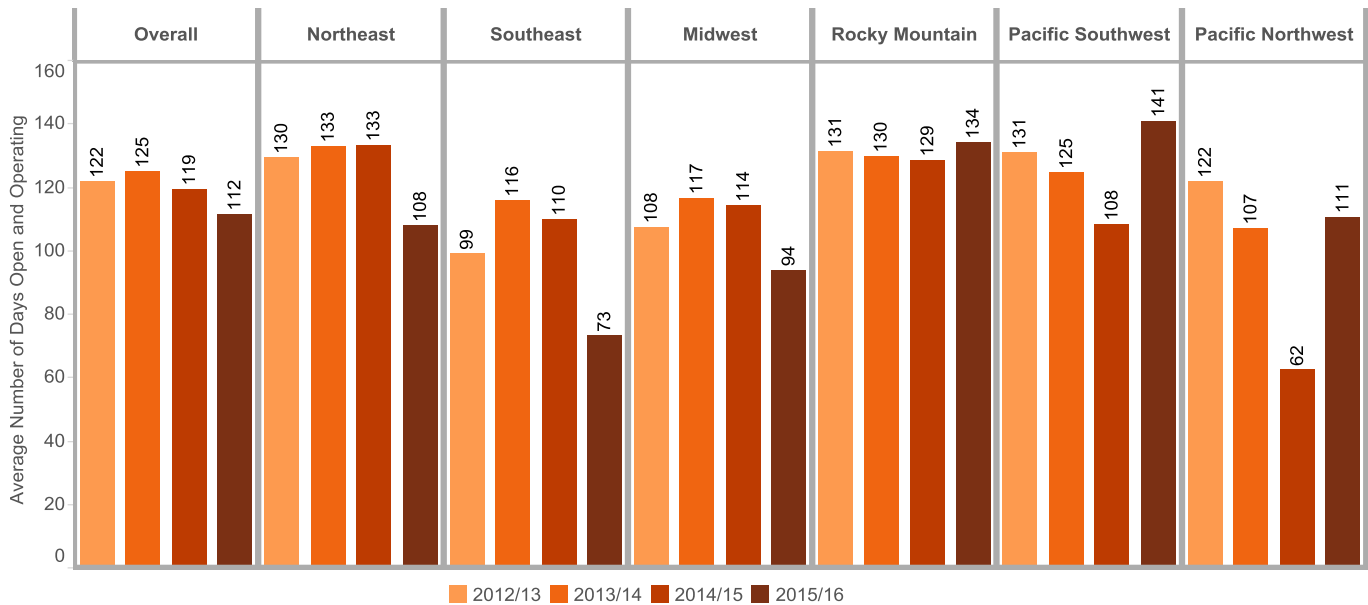
Note: 2014/15 – 2015/16 results are based on “same-store” resorts, i.e. resorts responding in both seasons. Results for the 12-season average are based on the maximum available resort sample in each season.

Average Days Open

As is typically the case, the number of days of operation was influenced by snowfall and weather, with weather and snow conditions across most of the country playing an important role this season. On an overall national basis, resorts responding to the survey were open an average of 112 days this season, down from 119 days in 2014/15, a decrease of 7 percent. The operating winter season was abbreviated in the Northeast (108 days on average per reporting ski area, down 19 percent), Midwest (down 18 percent to 94 days), and Southeast (down 33 percent to 73 days of operation).

On the other hand, increases in the number of days open rose in the Rocky Mountains (134 days, up 4 percent), Pacific Southwest (141 days, up 30 percent) and the Pacific Northwest (111 days, up 78 percent). The rebounds in the two Pacific regions was a very positive finding of the season overall.

Figure 10
Average Days Open by Region, 2012/13 - 2015/16



Actual vs. Projected Opening Date

By comparing resorts’ actual opening date to their projected opening date, it is possible to quantify the degree to which resorts were able to open on time, or (due to favorable or unfavorable circumstances) accelerate or delay their openings.

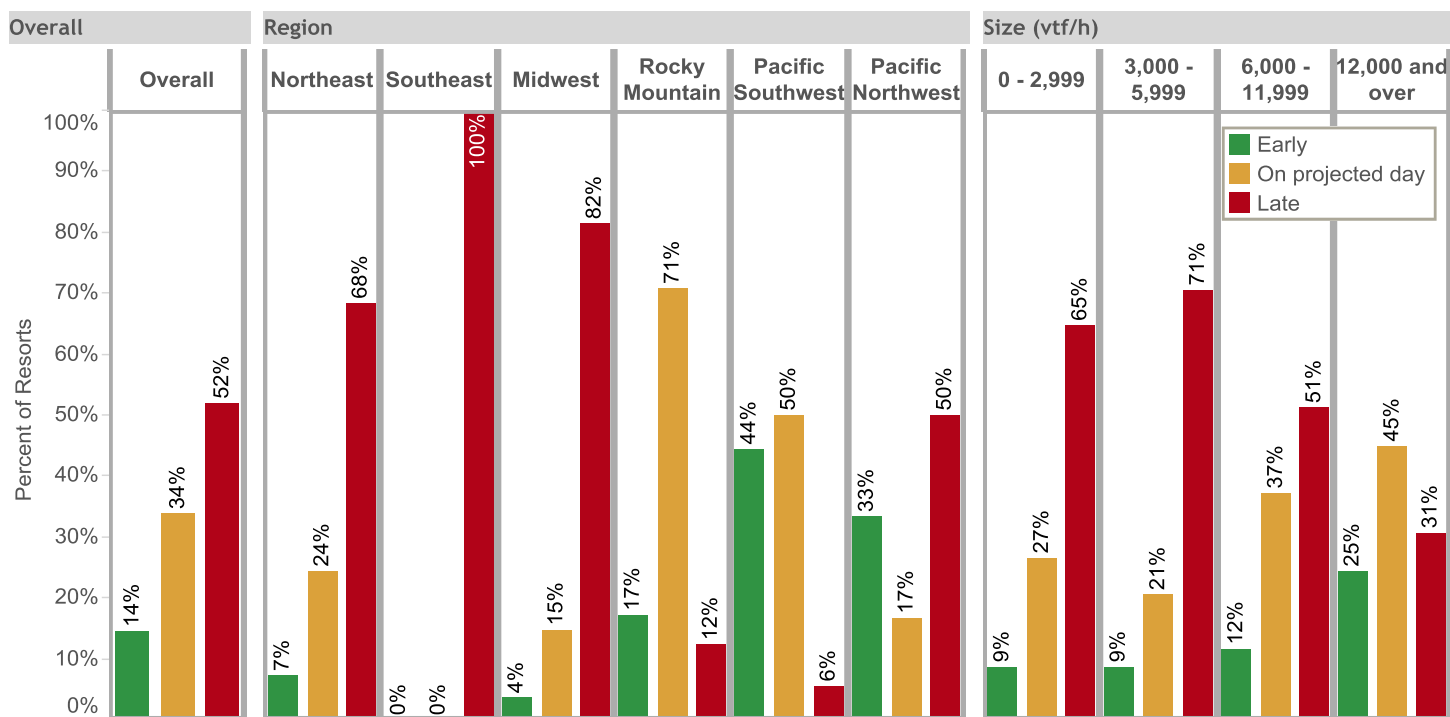
In the 2015/16 season, about half of reporting US ski areas opened late (52 percent), one-third opened on the projected opening day (34 percent), and the remaining one-seventh opened early (14 percent).

Ski areas were more likely to open early than late in the Pacific Southwest (44 percent early, 6 percent late) and, to a lesser degree, in the Rocky Mountain region (17 percent early, 12 percent late).

Ski areas in the other regions were more likely to begin their season late rather than early: Southeast (100 percent late vs. 0 percent early), Northeast (68 percent late vs. 7 percent early), Midwest (82 percent late vs. 4 percent early), and Pacific Northwest (50 percent late vs. 33 percent early).

By size of ski area, the smallest two size groups had the highest likelihood of opening late (65 percent for small areas and 71 percent for smaller mid-sized areas). About half of the larger mid-sized cohort opened late (51 percent), while the largest resorts were least likely to open late (though 30 percent of them did), and most likely to open early (25 percent).

Figure 11
Percent of Resorts Opening Early, On Time, and Late (Relative to Projected Opening Day), 2015/16



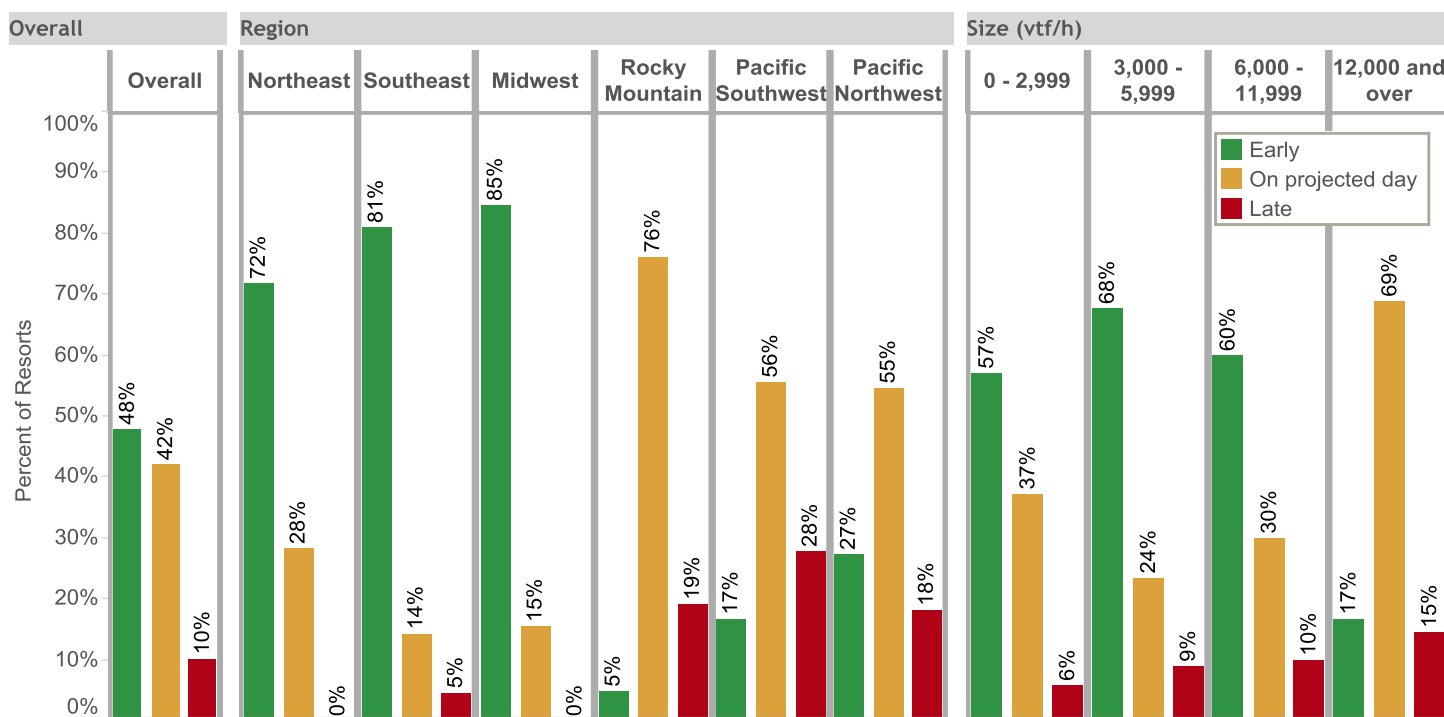
Actual vs. Projected Closing Date

Projected closing date can be compared to the actual closing date, to determine the degree to which resorts were able to close as scheduled or even prolong their late season operations, or, conversely, needed to cut their seasons short.

As illustrated in Figure 12 below, consistent with observations made earlier about challenging weather, more resorts closed early (48 percent) than late (10 percent) this season, with four in ten (42 percent) closing on their projected closing date. Midwest (85 percent), Southeast (81 percent), and Northeast (72 percent) ski areas were particularly likely to close early. Meanwhile, ski areas in the other three regions were most likely to close on time (55 to 76 percent closed on their projected closing date).

By ski area size, the three smaller groups of ski areas were more likely to close early (57 to 68 percent) rather than late (6 to 10 percent), while the majority of resorts in the largest cohort closed on their projected closing day (69 percent).

Figure 12
Percent of Resorts Closing Early, On Time, and Late (Relative to Projected Closing Day), 2015/16

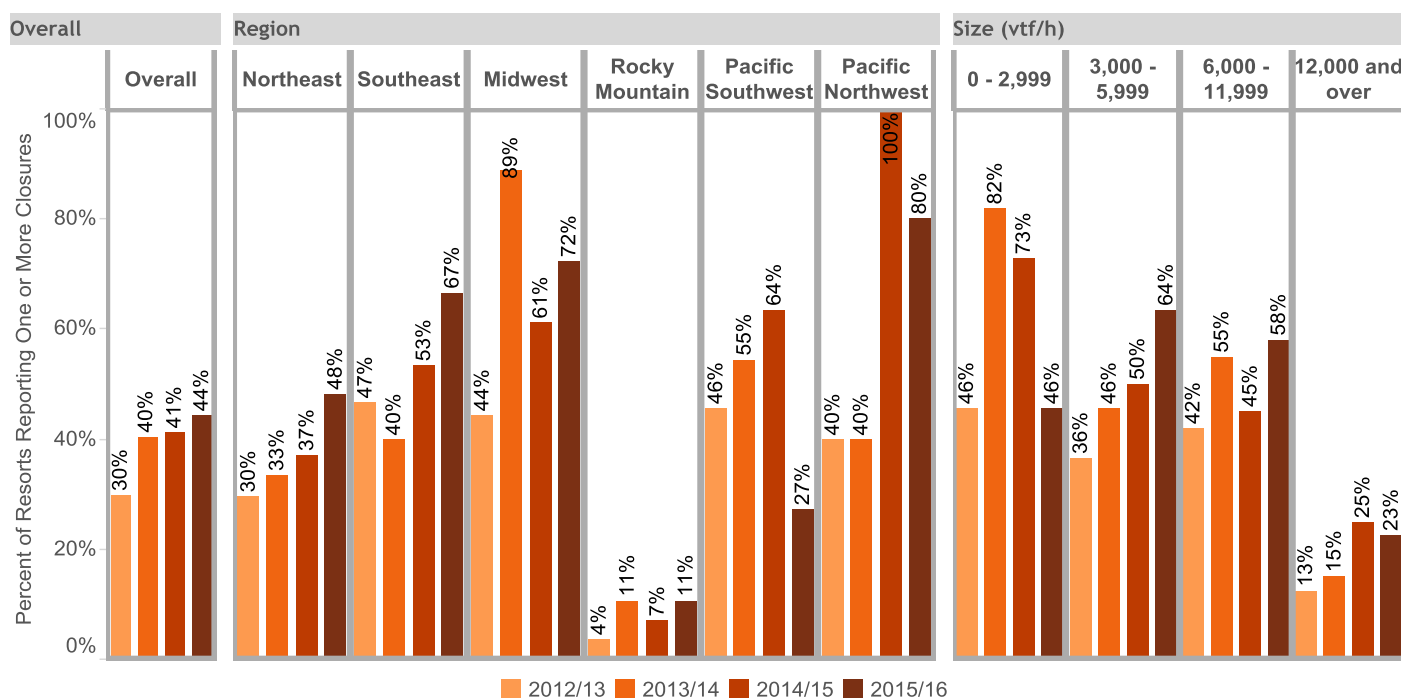


Unscheduled Midseason Closures

This season, 44 percent of responding areas reported one or more unscheduled midseason closures, up slightly from the past two winter seasons (41 percent and 40 percent in 2014/15 and 2013/14, respectively).

By region, resorts in the Pacific Northwest, Midwest, and Southeast were most likely to experience one or more midseason closures (80, 72, and 67 percent, respectively). Other regions, including the Northeast (48 percent), Pacific Southwest (27 percent), and Rocky Mountains (11 percent), were less likely to report unscheduled closures. The likelihood of closures generally decreased with ski area size, from 46 percent among the smallest resorts to 23 percent among the largest.

Figure 13
Incidence of unscheduled and/or unplanned midseason closures (Due to weather, mechanical, or other factors)
2012/13 to 2015/16

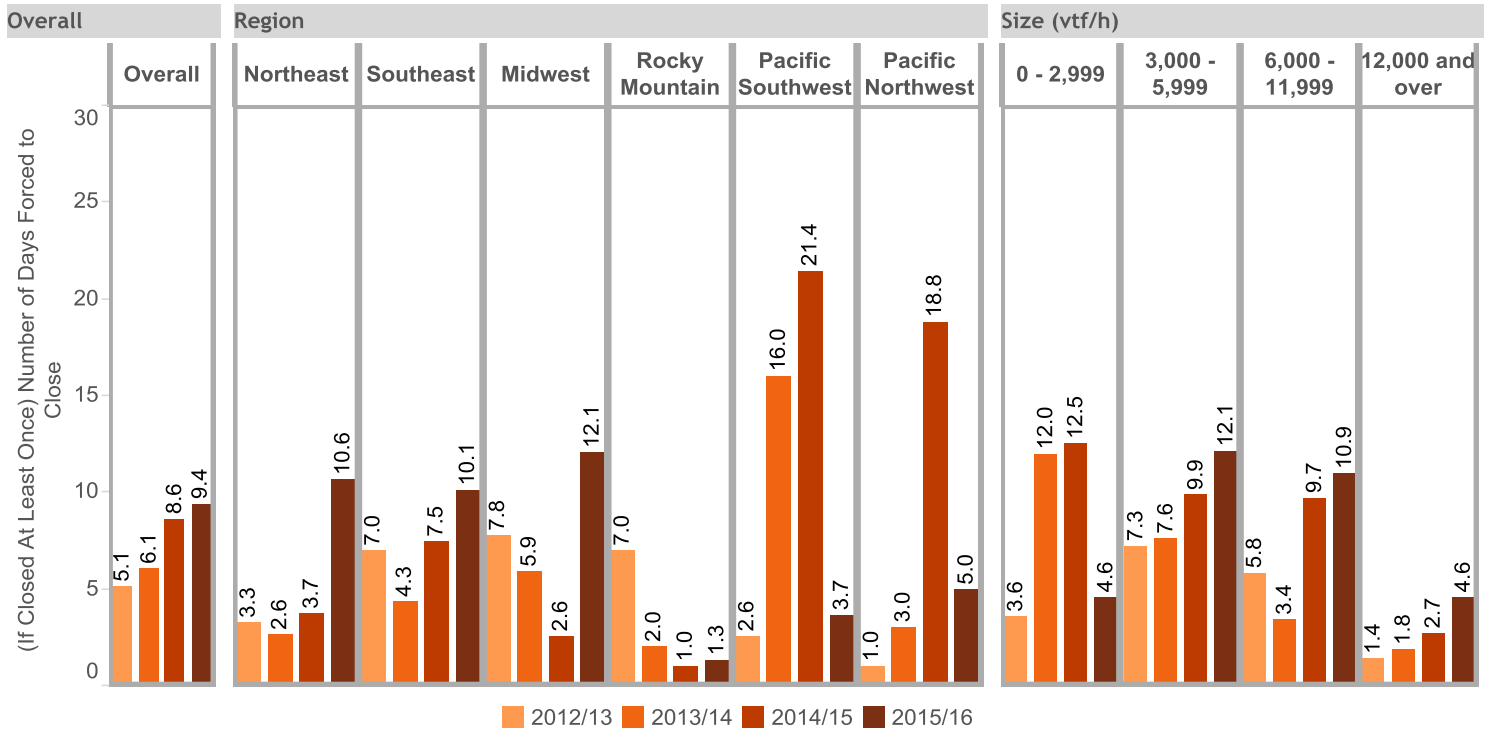


Among resorts reporting at least one unscheduled closure, the average cumulative duration of closures grew somewhat to 9.4 days per resort this season from 8.6 days last season. Average cumulative days of closure increased in the Midwest (12.1 days, up from 2.6 days in 2014/15), Southeast (10.1 days, up from 7.5 days), and Northeast (10.6 days, up from 3.7 days). On the other hand, declines in the total number of unscheduled days closed were recorded in the Pacific Northwest (5.0 days, down from 18.8 days) and Pacific Southwest (3.7 days, down from 21.4 days). The average cumulative duration of closures was relatively steady in the Rocky Mountains (1.3 days, up from 1.0 days).

Resorts were invited to comment on the causes of midseason closures. The overwhelming majority of comments were related to weather conditions, and some common trends emerged when comments were broken down by region. Ski areas in the Northeast cited unseasonably warm temperatures and rain as the primary causes of their closures. Similarly, Southeast and Midwest resorts usually attributed closures to warm weather and rain, preventing snowmaking operations. Few Rocky Mountain or Pacific Southwest

resorts gave comments regarding closures, and those that did cited wind events or power outages. Finally, ski areas in the Pacific Northwest most frequently reported wind and road closures (due to avalanches).

Figure 14
 (If closed at least once) How many total days was your area forced to close this season?
 Average days closed, 2012/13 to 2015/16



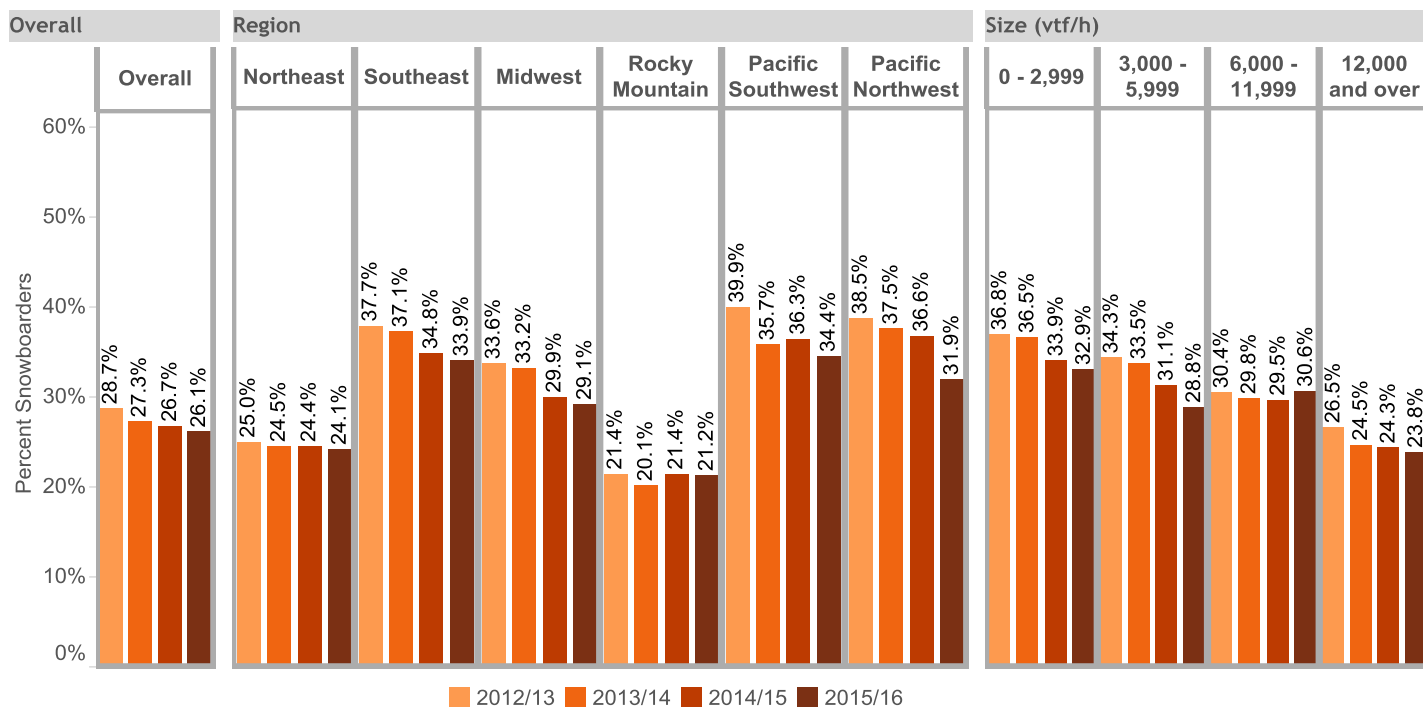
Snowboarding

Nationally, snowboarding participation held relatively steady at 26.1 percent of visits this season, down marginally from 26.7 percent in 2014/15. Minor declines in the proportion of snowboarding visits were observed in all six regions and in three of the four size groupings, suggesting a consistent, if slight, slowing of the contribution to total visits from snowboarders.

The Pacific Southwest has the highest rate of snowboarding participation of any region (34.4 percent of visits, down 1.9 percentage points from 2014/15), followed by the Southeast (33.9 percent, down 0.9 ppts), Pacific Northwest (31.9 percent, down 4.7 ppts), and Midwest (29.1 percent, down 0.8 ppts). More modest proportions of snowboarders were seen in the Northeast (24.1 percent, down 0.3 ppts) and Rocky Mountains (21.2 percent, down 0.2 ppts) regions.

By size, the smallest resorts continue to attract the highest proportion of snowboarders (32.9 percent, down 1.0 ppts), decreasing steadily by size to the largest resorts (23.8 percent, down 0.5 ppts). Gains in snowboarder visits were noted only in the larger mid-sized resort grouping (up 1.1 ppts to 30.6 percent of visits).

Figure 15
Snowboarders as a Percent of Total Visits
2012/13 - 2015/16



Day / Overnight Visitation

Overnight visitation continues to represent the majority of visits nationally, accounting for 52.1 percent of total visits, down slightly from 52.9 percent a year ago. Conversely, day visitation represents 47.9 percent of visits, up somewhat from 47.1 percent last season. The proportionate increase in day visitation and decrease in day visitation is also consistent with other patterns noted in this report, including a

proportionate increase in season pass visits (with decreases in paid tickets visits), as passholders are comparatively more likely to be day visitors. The pattern is also consistent with a decline in international visitors.

Increases in the proportion of visits from overnight skiers and riders were noted in two of the six geographic regions, including the Northeast (up 1.9 percentage points to 48.5 percent of visits) and Pacific Southwest (up 2.2 pts to 65.3 percent) regions; the latter region boasts the highest share of visits from overnight visitors.

Declines in the proportion of overnight visitation were most substantial in the Rocky Mountains (down 4.3 pts to 60.2 percent of total visits), and less pronounced in the Pacific Northwest (down 0.6 pts to 5.1 percent of total visits, the region with the smallest share of overnight visitors), Southeast (down 0.7 pts to 33.0 percent), and Midwest (down just 0.1 pts to 22.4 percent) regions.

By size, overnight visitation predominates at the largest resorts (60.8 percent, down 3.5 pts), and decreases to 19.9 percent of visits at the smaller mid-sized areas (though it jumps to 40.5 at the smallest resort cohort).

The share of visits attributable to day visitors grew by 0.8 percentage points to 47.9 percent. The region with the highest share of total visits from day visitors is the Pacific Northwest (94.9 percent), followed by the Midwest (77.6 percent) and Southeast (67.0 percent) regions, with lower levels in the Northeast (51.5 percent), Rocky Mountains (39.8 percent), and Pacific Southwest (34.7 percent).

Figure 16
Day Visitors as a Percentage of Total Visitation: 2012/13 – 2015/16

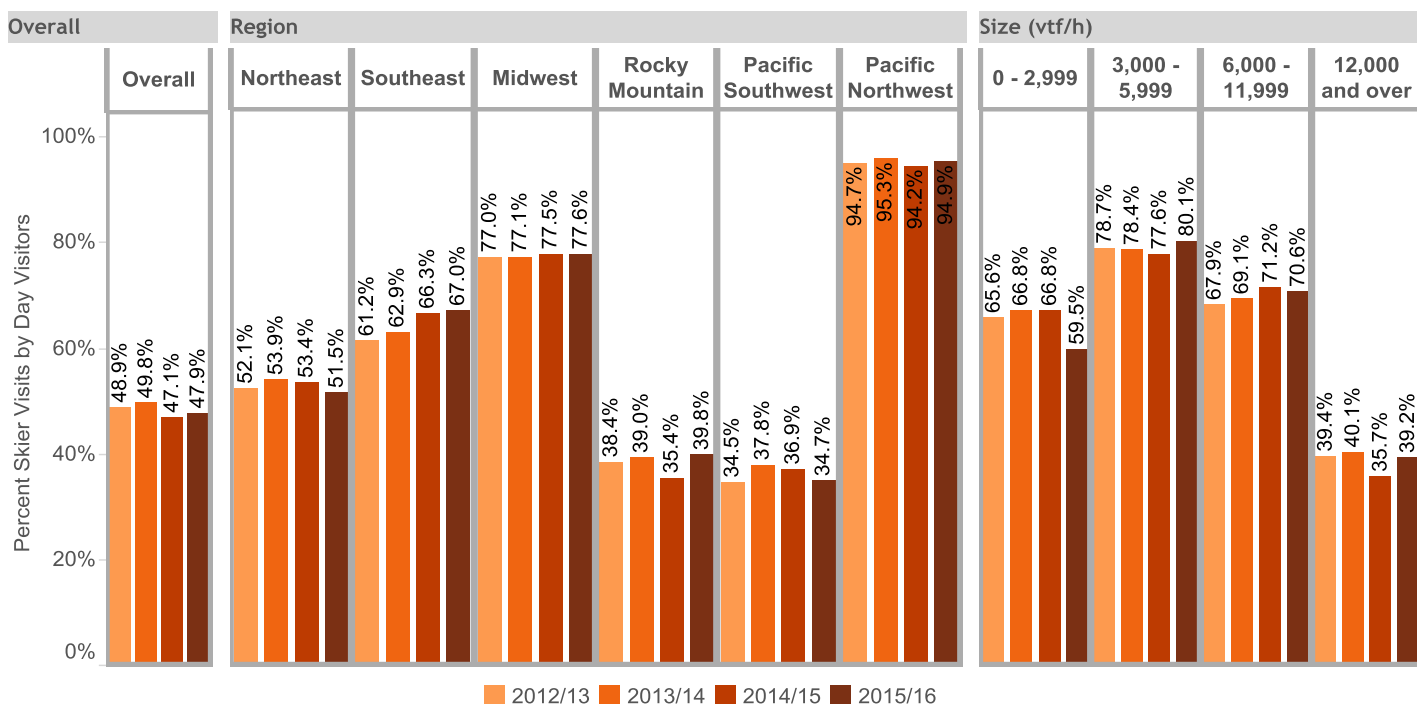
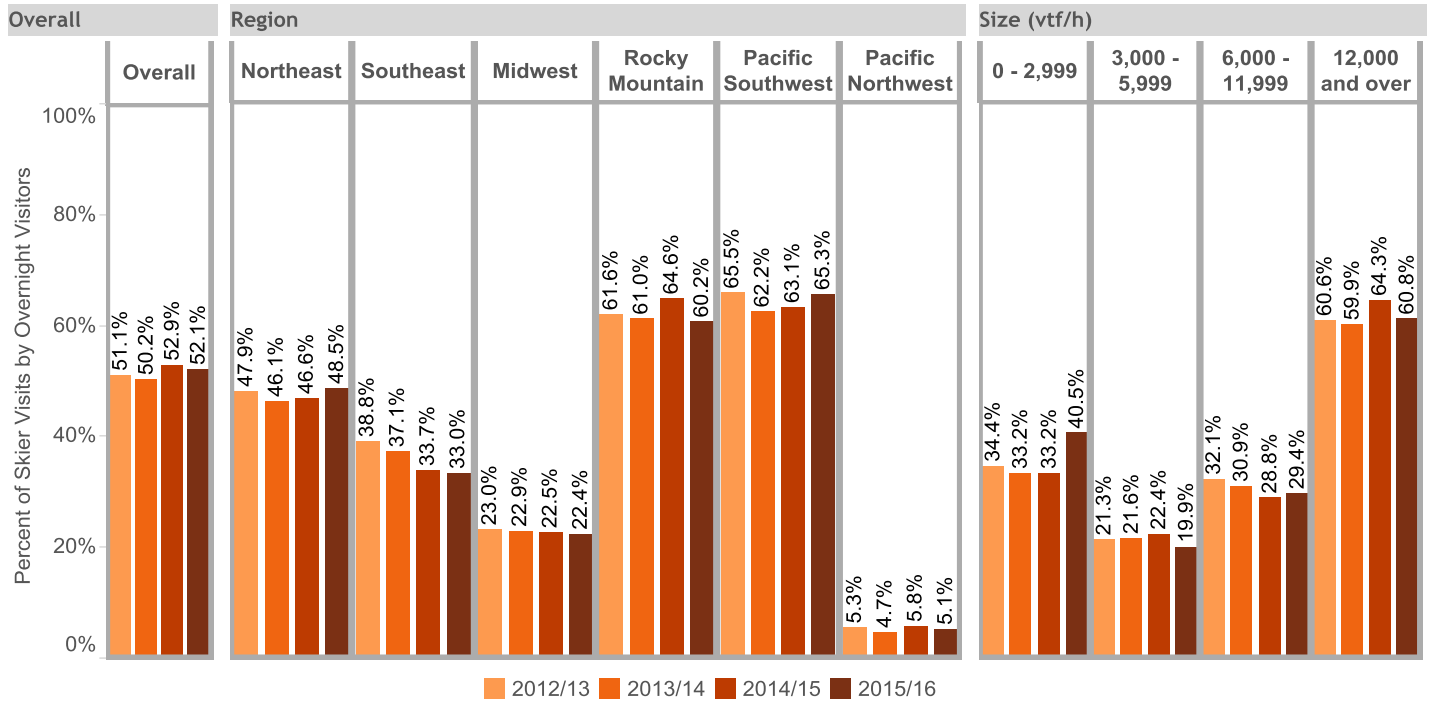


Figure 17
Overnight Visitors as a Percentage of Total Visitation: 2012/13 – 2015/16



Country of Origin

The share of total visitors from foreign countries shrank this season, to 5.5 percent of total national visits from 7.0 percent last season, down 1.5 percentage points. Canadian visitation was down to 2.2 percent of total visits (from 3.0 percent last winter), while other international visitation was also off at 3.3 percent of visits (down from 4.0 percent in 2014/15). Changes were relatively minor in most of the geographic regions, though a decline in the proportion of visits from Canadian customers was noted in the Northeast (down 2.1 percentage points to 7.3 percent of total visits) and a dip in Other International visits was recorded in the Rocky Mountain region (down 1.6 percentage points to 4.9 percent of total visits). See Figure 19 below for Canadian visitation percentages and Figure 20 for Other International figures.

Figure 18
U.S. Resident Visitation: 2012/13 – 2015/16

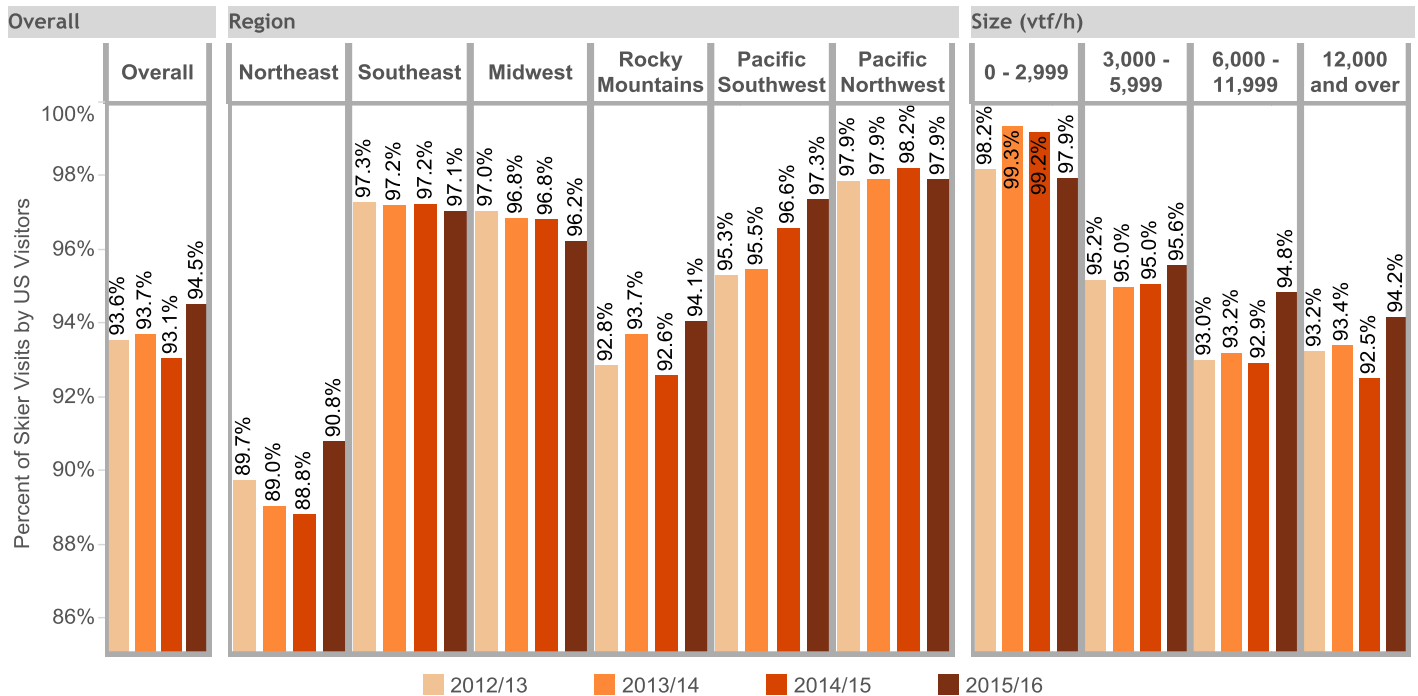


Figure 19
Canadian Visitation: 2012/13 – 2015/16

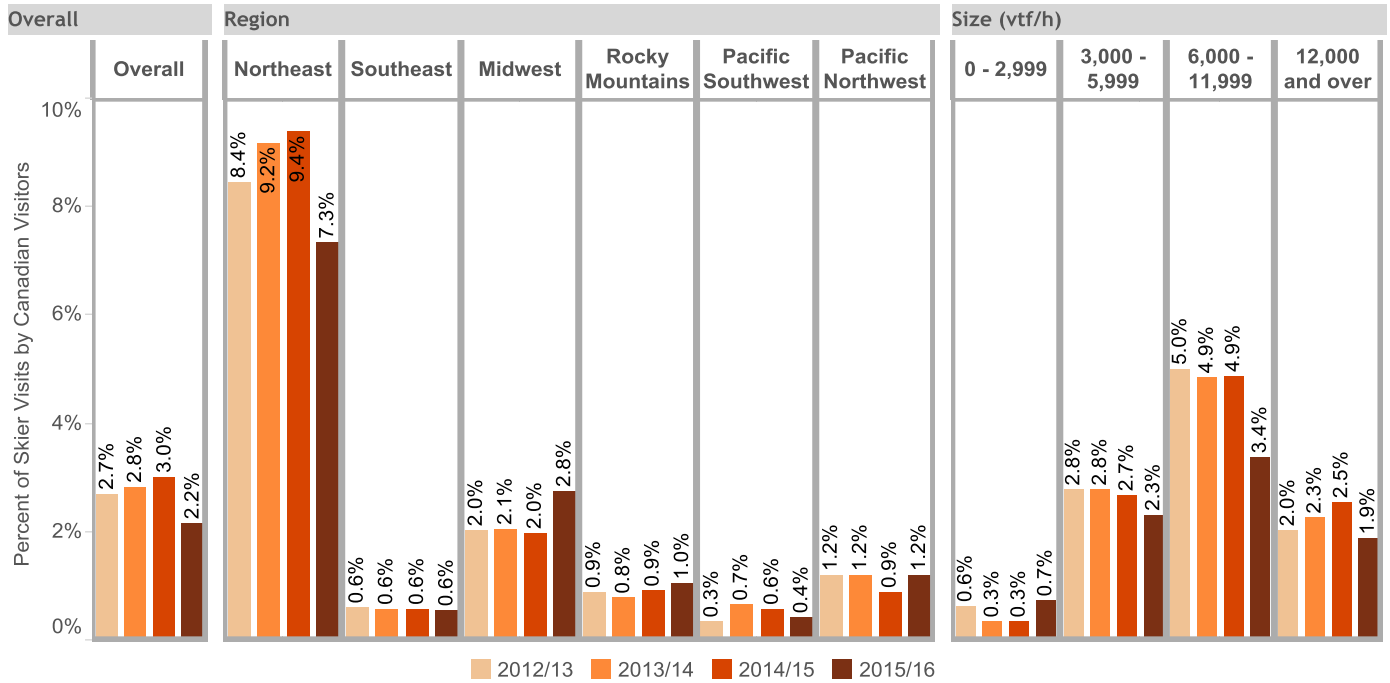
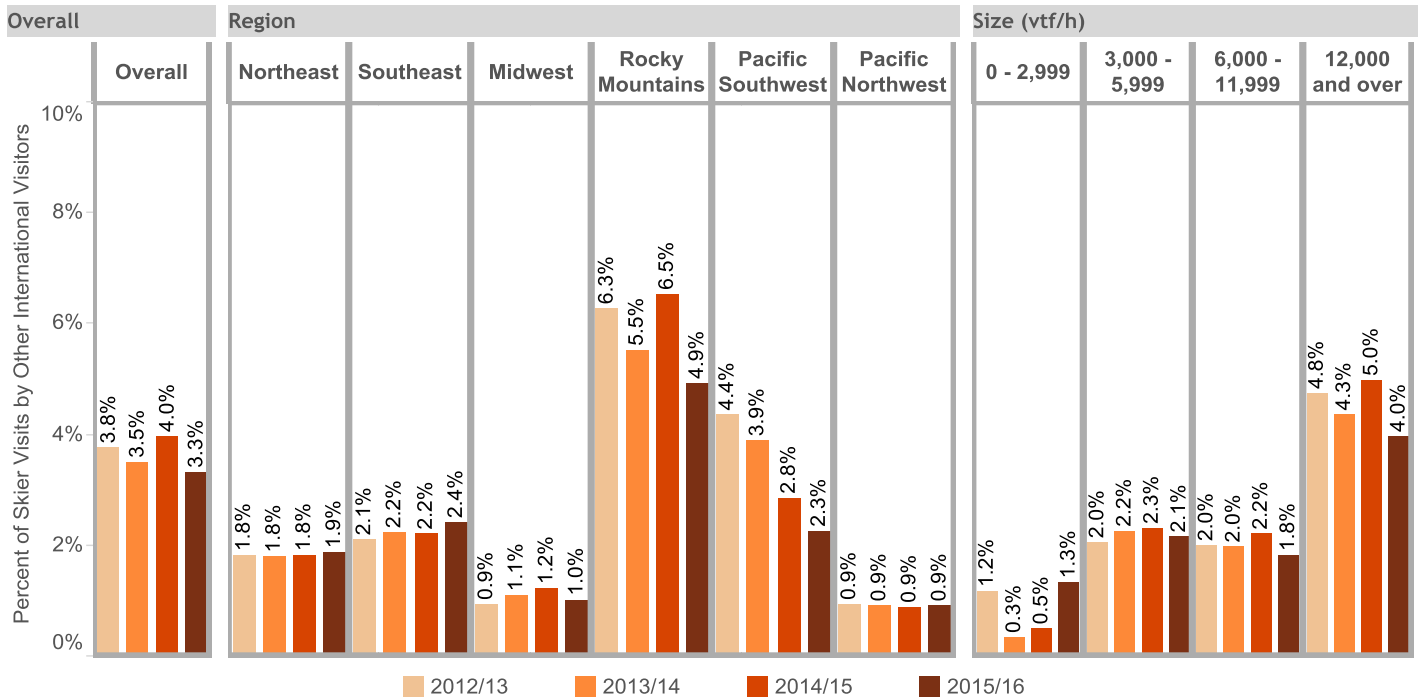


Figure 20
Other International Visitation: 2012/13 – 2015/16



Visits by Ticket Type

Resorts were asked to provide a breakdown of their downhill snowsports visits by ticket type, including paid tickets, season pass visits, off-duty employee visits, complimentary tickets, and other non-paid lift tickets. A separate question asked resorts to quantify “other” visits (i.e. visits not counted as downhill snowsports visits), including snowtubing, Nordic tickets, paid sightseeing visits, and any other visits.¹

Overall, the results indicate a proportionate increase in season pass visits this season compared to last (and the strongest in four seasons). Concurrently, the share of visits attributable to paid tickets visits was down. Off-duty employee visits shrank slightly, while complimentary ticket usage was stable. Other non-paid visits were up slightly on a year-over-year basis.

More specifically, as illustrated in Figure 21 to follow, on an overall national basis, paid visits declined, though are still the largest component, to 49.8 percent of visits from 52.5 percent last season, a slide of 2.7 percentage points. Paid ticket visitation was down in four of the six regions, most notably in the Northeast (down 3.9 percentage points) and Southeast (down 3.4 ppts), with a slight dip also seen in the Midwest (down 1.8 ppts) and Rocky Mountains (down 0.8 ppts). Increases in the share of paid tickets were reported in the Pacific Southwest (up 1.1 ppts) and Pacific Northwest (up 1.4 ppts).

Among the regions, the Midwest has the highest share of total visits from paid tickets (63.4 percent in 2015/16), followed closely by the Southeast (61.6 percent). Ski areas in the Pacific Southwest (52.4 percent), Northeast (51.3 percent), Rocky Mountain (46.0 percent), and Pacific Northwest (41.5 percent) regions have somewhat lower shares of total visits from paid tickets.

Season pass visits (Figure 22 to follow) gained in proportionate terms this season, accounting for 40.8 percent of total visits, up 3.0 percentage points from 37.8 percent in 2014/15. The share of total visits from season passes decreased in the Pacific Northwest (-5.4 ppts) and, to a lesser extent, in the Pacific Southwest (-0.4 ppts). Gains in the proportion of visits from season pass holders were recorded in the Northeast (+3.7 ppts), Southeast (+3.3 ppts), Rockies (up 2.1 ppts), and Midwest (+1.5 ppts).

The Pacific Northwest has the highest share of season pass visits among the regions (49.5 percent in 2015/16), followed by the Rocky Mountains (42.9 percent), Northeast (40.8 percent), and Pacific Southwest (40.7 percent). The Southeast and Midwest regions have the smallest share of visits from season passholders (31.2 and 30.9 percent, respectively).

Among other ticket categories, off-duty employee visits (Figure 23), a relatively small category of visits, fell to 3.2 percent of visits nationally from 3.8 percent in the prior season. Finally, the share of total visits from complimentary tickets was 5.3 percent of total visits, up marginally from 5.2 percent in 2014/15, while the share of other non-paid visits was up slightly to 0.9 percent of visits (vs. 0.6 percent the prior season) (Figure 24).

¹ For reference, the Kottke survey defines “downhill visit” as follows: “A downhill visit represents one person visiting a ski area for all or any part of a day or night for the purpose of skiing, snowboarding, or other downhill sliding. Skier visits include full-day, half-day, night, complimentary, adult, child, season pass and any other type of ticket that gives a skier the use of an area's facilities. Where single ride or coupon books are sold, visits for such tickets should be computed on an equivalent basis (i.e. x rides = 1 skier visit).” The survey’s “definition of terms” goes on to provide suggested ways of estimating season pass visits (if not scanned) and employee off-duty visits (if included by the resort in its skier visit tabulations). The survey form (question 1) also clarifies that snowtubing and other snowplay visits are to be excluded from the skier visit totals.

Figure 21
Percent of Visits Attributable to Paid Tickets, 2012/13 – 2015/16

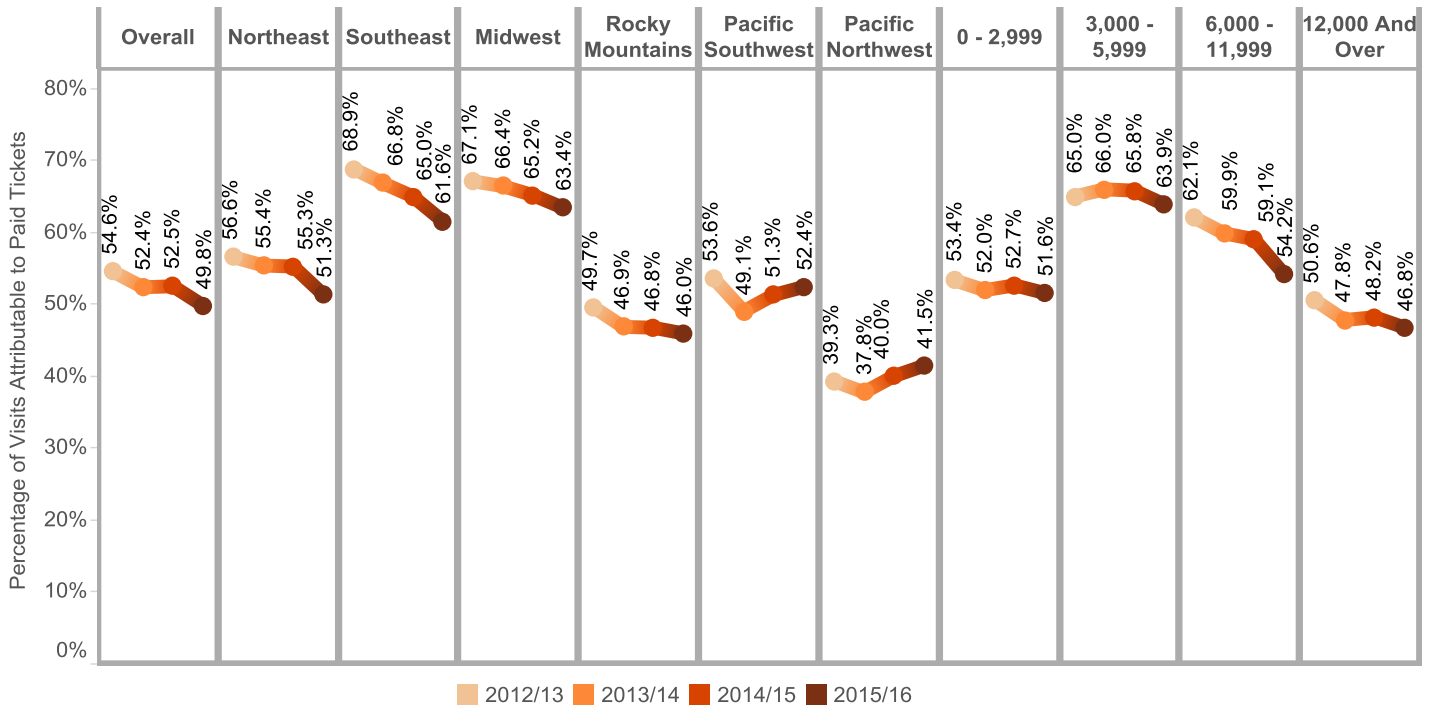


Figure 22
Percent of Visits Attributable to Season Pass Usage, 2012/13 – 2015/16

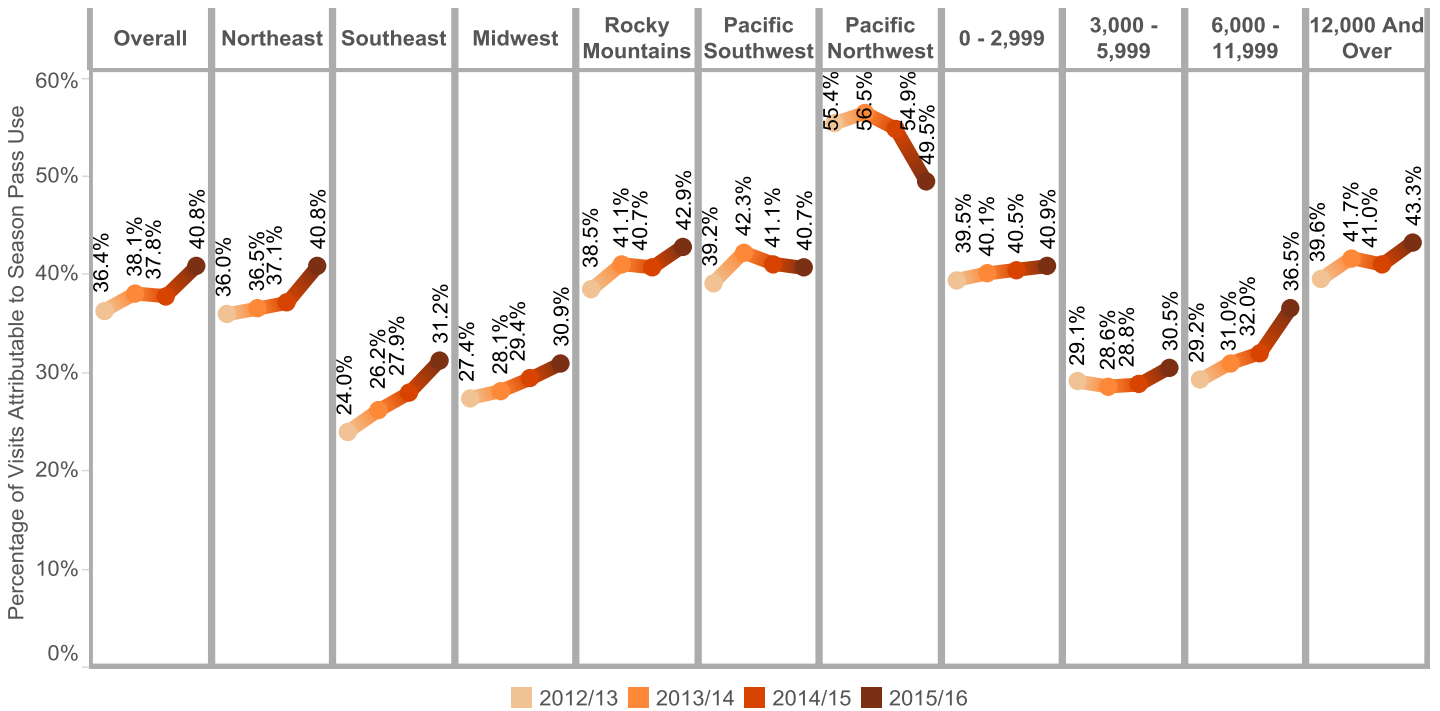


Figure 23
Percent of Visits Attributable to Off-Duty Employee Visits, 2012/13 – 2015/16

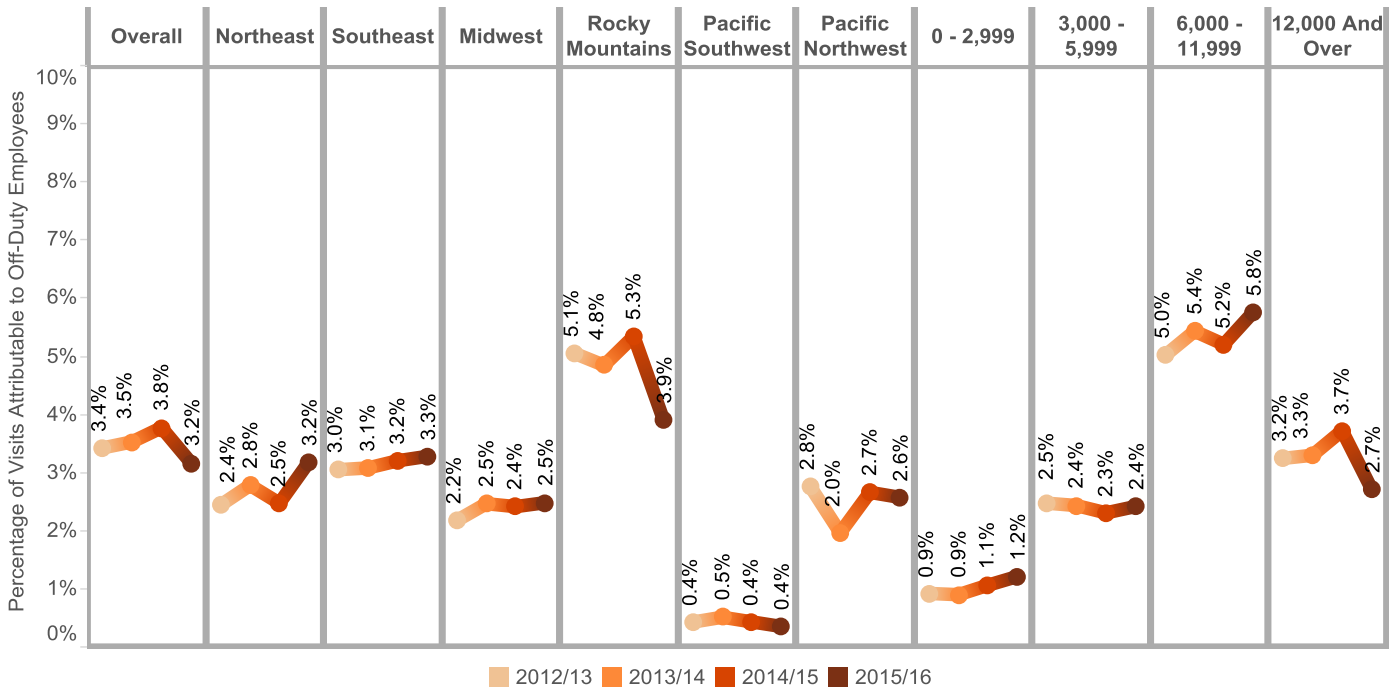
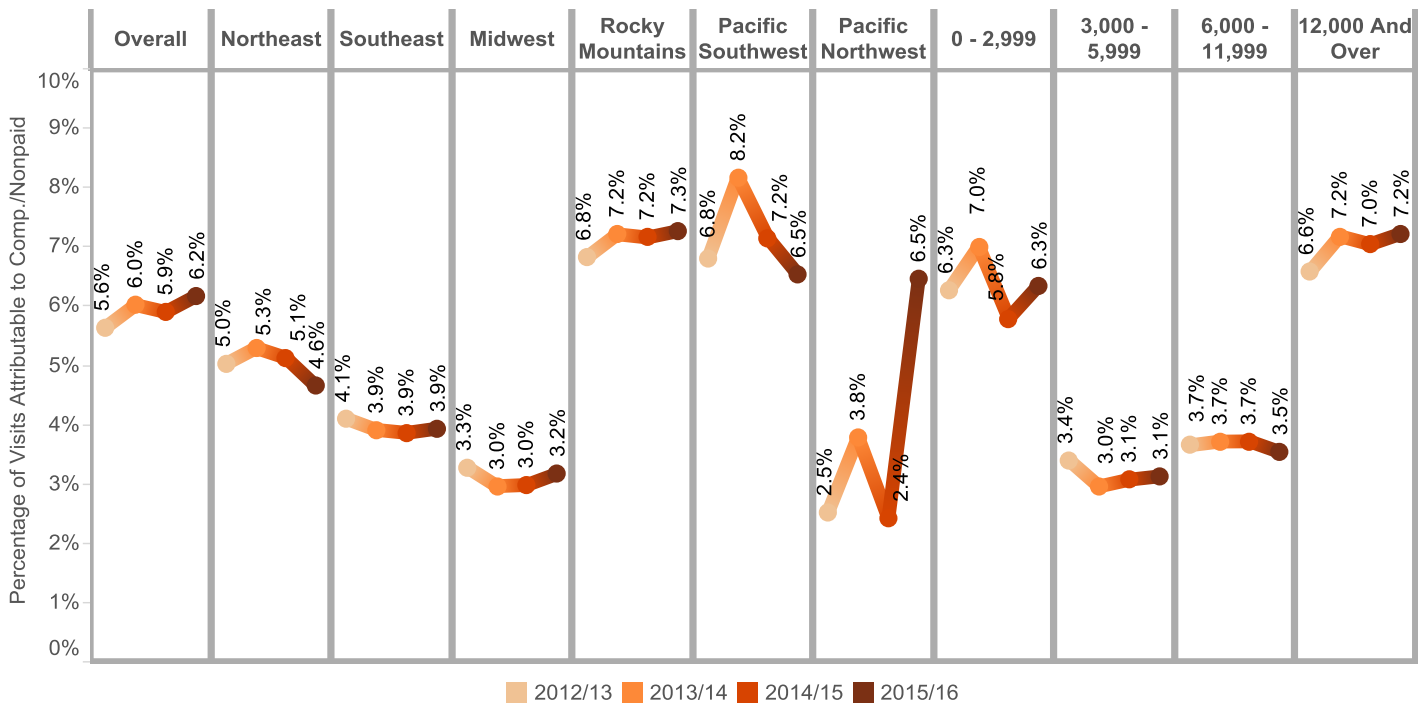


Figure 24
Percent of Visits Attributable to Complimentary and Other Non-Paid Tickets, 2012/13 – 2015/16



Season Passes Sold

The average number of season passes sold per ski area declined slightly by 0.5 percent from 2014/15, to an average of 6,594 passes sold per area. Pass unit sales increased most significantly in the Pacific Northwest (up 13.9 percent to an average of 10,157 passes sold per ski area), followed by the Pacific Southwest (up 6.2 percent to 9,181 passes).

Average pass sales per ski area were down in the other four regions. Unit sales were down slightly in the Rocky Mountain region (down 0.8 percent to 10,852 passes), followed by the Northeast (down 3.9 percent to 5,242), Midwest (down 4.5 percent to 2,868), and Southeast (down 10.0 percent to 4,179). By size of the ski area, season pass unit sales were mixed, with increases noted in the small (up 10.0 percent to 2,557 units sold) and larger mid-sized groups (up 6.8 percent to 4,332 units sold), and declines in the other two size cohorts.

Table 2
Season Pass Visits, Season Pass Sales, and Average Visits per Pass: 2015/16 vs. 2014/15

	Average Season Pass Visits			Average Season Passes Sold			Average Visits per Pass		
	2015/16	2014/15	% Chg	2015/16	2014/15	% Chg	2015/16	2014/15	% Chg
Overall	77,905	76,212	2.2%	6,594	6,627	-0.5%	11.8	11.5	2.7%
Northeast	65,717	83,282	-21.1%	5,242	5,455	-3.9%	12.5	15.3	-17.9%
Southeast	42,737	54,489	-21.6%	4,179	4,644	-10.0%	10.2	11.7	-12.8%
Midwest	28,354	32,858	-13.7%	2,868	3,003	-4.5%	9.9	10.9	-9.6%
Rocky Mountain	136,203	124,927	9.0%	10,852	10,942	-0.8%	12.6	11.4	9.9%
Pacific Southwest	131,915	88,984	48.2%	9,181	8,642	6.2%	14.4	10.3	39.5%
Pacific Northwest	89,230	50,819	75.6%	10,157	8,916	13.9%	8.8	5.7	54.1%
0 - 2,999 vtf/h	20,493	19,935	2.8%	2,557	2,325	10.0%	8.0	8.6	-6.5%
3,000 - 5,999 vtf/h	30,431	35,881	-15.2%	3,351	3,626	-7.6%	9.1	9.9	-8.2%
6,000 - 11,999 vtf/h	60,633	61,563	-1.5%	4,627	4,332	6.8%	13.1	14.2	-7.8%
12,000+ vtf/h	168,959	158,044	6.9%	13,669	13,988	-2.3%	12.4	11.3	9.4%

Results based on responses from 120 resorts providing two seasons of data.

The average number of visits per passholder was up slightly to 11.8 days this season from 11.5 days last season, an increase of 2.7 percent. Variability in days per passholder were seen regionally, with the three Eastern regions experiencing a decline in the average number of days per passholder, and the metric growing in the three Western regions.

The average number of skiing/riding days per passholder was highest in the Pacific Southwest (14.4 days, up from 10.3 days in 2014/15), followed by the Rocky Mountains (12.6 days, up from 11.4 days) and Northeast (12.5 days, down from 15.3 days). Somewhat lower number of days per passholder were noted in the Southeast (10.2 days, down from 11.7 days), Midwest (9.9 days, down from 10.9 days), and Pacific Northwest (8.8 days, up from 5.7 days) regions.

Ticket Price and Yield

Average adult weekend ticket prices (as weighted by resort skier visits) increased 9.5 percent this season to \$109.08 (Figure 25 to follow), up from \$99.46. Ticket prices increased in five of the six geographic regions and in all four size categories.

Higher ticket prices were recorded in the Rocky Mountains (up 6.8 percent to \$128.92) and Pacific Southwest (up 5.9 percent to \$113.95). More moderate price increases occurred in the Southeast (up 4.5 percent to \$75.38), Midwest (up 4.0 percent to \$62.35), and Northeast (up 3.5 percent to \$82.43) regions. The Pacific Northwest region was the only one to post a decline in average adult ticket price (down 6.9 percent to \$70.37).

As illustrated in Figure 26 to follow, average ticket yields (i.e. the ratio of total ticket/pass revenue to total downhill snowsports visits) rose 11.2 percent nationally this past winter to \$51.56, likely aided in part by fewer visits per passholder. Large gains were recorded in the Pacific Southwest (up 15.1 percent to \$63.87) and Rocky Mountain (up 8.7 percent to \$59.35) regions. Smaller increases were notched in the Midwest (up 2.6 percent to \$27.44), Southeast (up 1.6 percent to \$43.42), and Northeast (up 0.1 percent to \$35.03). The overall increases in ticket yield and yield ratio should prove to be helpful for ski area revenues and finances, to be documented in the forthcoming NSAA *Economic Analysis of US Ski Areas*.

As illustrated in Figure 27 to follow, the ticket yield ratio (i.e. the ratio of ticket yield to adult weekend ticket price) increased nationally this season to 47.3 percent from 46.6 percent last season, as gains in ticket yield (up 11.2 percent) outpaced increases in ticket price (up 9.7 percent). This result reverses a downward trend seen for ticket yield ratio over the past several seasons.

Yield ratios were down in the three Eastern regions – the Northeast (down 1.4 percentage points to 42.5 percent), Southeast (down 1.6 ppts to 57.6 percent), and Midwest (down 0.6 ppts to 44.0 percent). However, the yield ratio rose in the three Western regions – the Rocky Mountain (up 0.8 ppts to 46.0 percent), Pacific Southwest (up 4.5 ppts to 56.1 percent), and Pacific Northwest (up 0.9 ppts to 46.8 percent).

Ticket yield ratios are highest in the Southeast (57.6 percent) and the Pacific Southwest (56.1 percent), followed by the Pacific Northwest (46.8 percent), Rocky Mountains (46.0 percent), Midwest (44.0 percent), and Northeast (42.5 percent).

Figure 25
Average Adult Weekend Ticket Price, 2012/13 - 2015/16

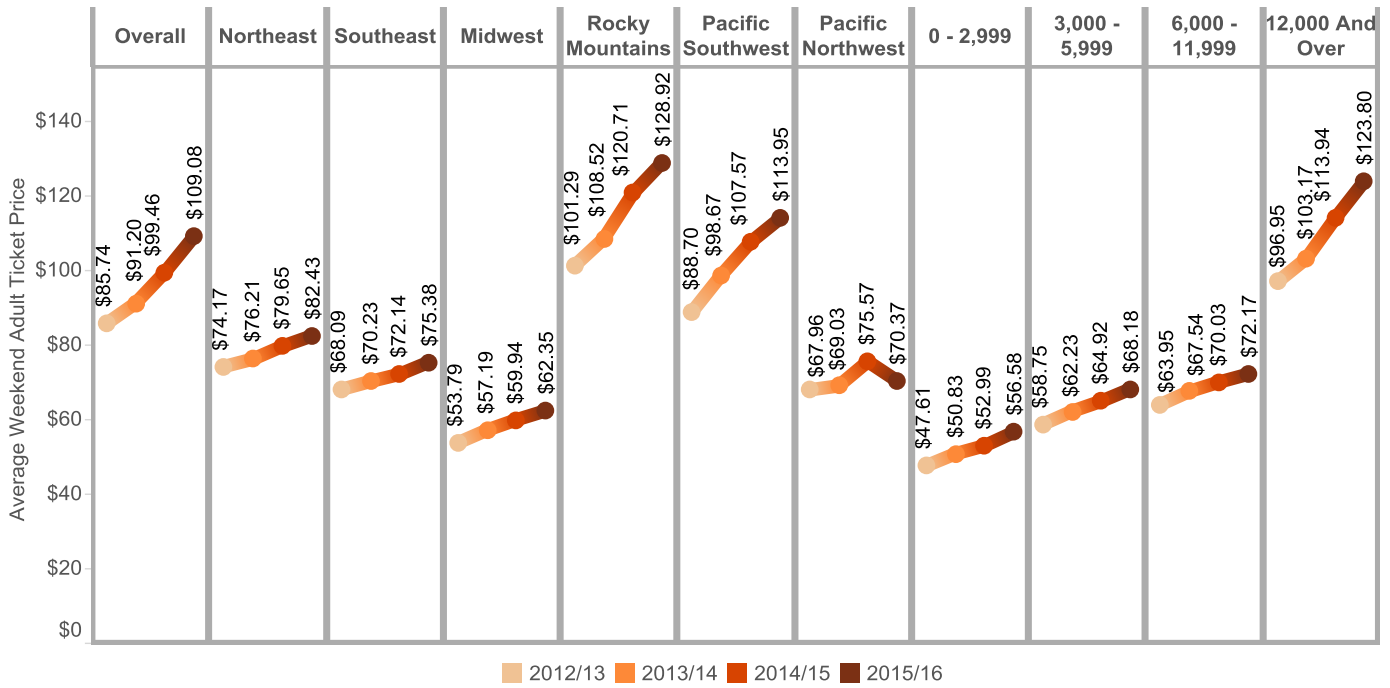


Figure 26
Average Ticket Yield, 2012/13 - 2015/16

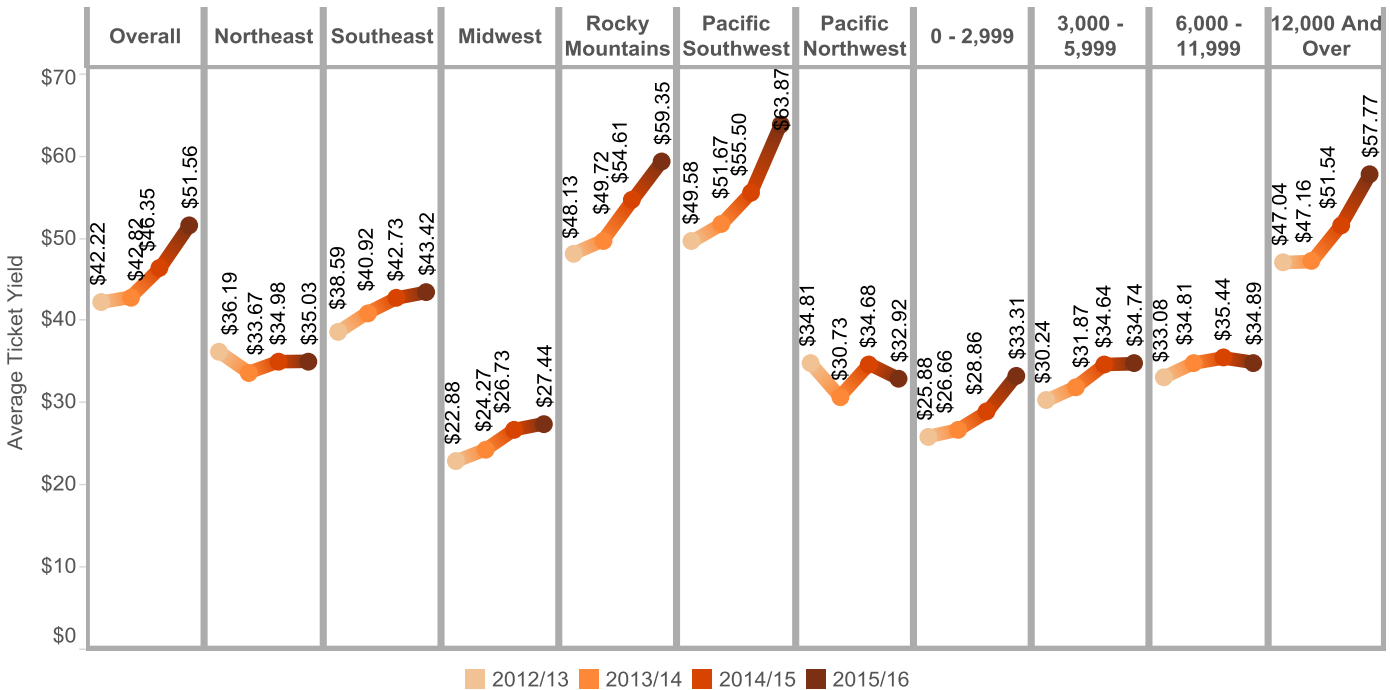
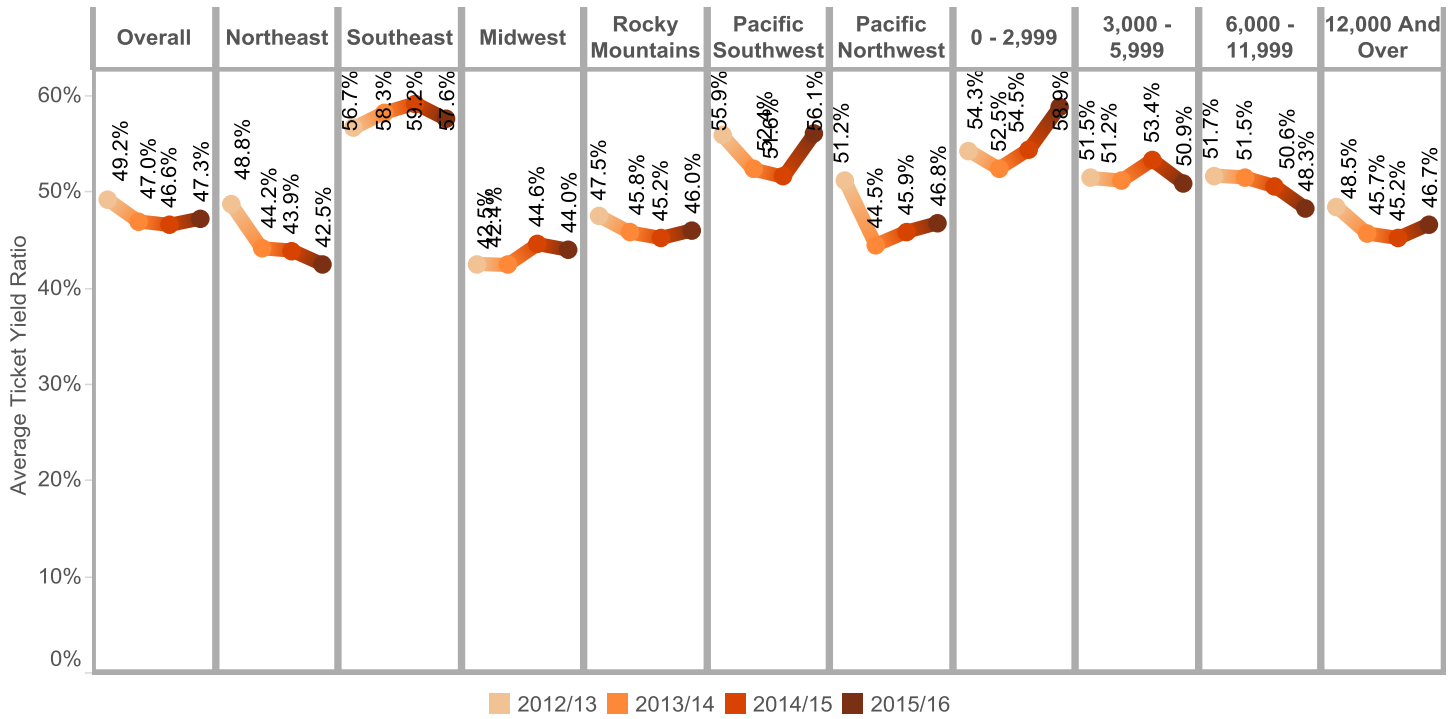


Figure 27
Average Ticket Yield Ratio, 2012/13 - 2015/16



Lessons

Table 3 below illustrates the average number of lessons given by ski areas in the past two seasons. The issue of lesson participation, particularly at the entry level, has been an area of focus for the industry, especially as a key element of the strategy for attracting newcomers to snowsports and converting first-timers into committed, long-term participants. Snowsports visitation models demonstrate that long-term, sustainable growth in the industry will be strongly tied to improving the retention of entry level skiers, in large measure through improved and upgraded lesson programs.

A total of 126 areas provided data on total lesson volumes for both 2015/16 and 2014/15. At these resorts, the total number of lessons given was down 2.1 percent (to an average of 19,665 lessons per area), while total visits at this same resort sample increased by 2.1 percent. As a result, the lesson participation rate (or share of visits which included a lesson) dropped to 7.4 percent in 2015/16 from 7.7 percent the season prior. Maintaining or increasing the lesson penetration ratio will be important in the long-term growth of snowsports (though this section presents data for all lessons, not just beginner lessons).

Absolute lesson volumes were down in the three Eastern geographic regions, with the greatest decreases in the Southeast (down 34.0 percent to 13,510 lessons per area), Northeast (down 22.7 percent to 14,453 lessons), and Midwest (down 16.2 percent to 6,548 lessons). Conversely, the three Western regions taught more lessons, led by the Pacific Northwest (up 104.8 percent to 11,853 lessons), Pacific Southwest (up 40.1 percent to 19,415 lessons), and Rocky Mountains (up 7.8 percent to 35,299 lessons).

Table 3
Average Lessons Given and Average Lessons:Visits Ratio, by Region and Size, 2015/16 vs. 2014/15

Resort Region & Size	Average Lessons Given			Average Visits per Responding Resort			Lessons : Visits Ratio			Number of Resorts
	2015/16	2014/15	% Change	2015/16	2014/15	% Change	2015/16	2014/15	% Change	
Overall	19,665	20,078	-2.1%	266,924	261,480	2.1%	7.4%	7.7%	-4.1%	126
Northeast	14,453	18,689	-22.7%	173,438	242,556	-28.5%	8.3%	7.7%	8.1%	30
Southeast	13,510	20,468	-34.0%	122,151	176,296	-30.7%	11.1%	11.6%	-4.7%	19
Midwest	6,548	7,814	-16.2%	92,734	112,266	-17.4%	7.1%	7.0%	1.4%	17
Rocky Mountains	35,299	32,759	7.8%	496,195	452,041	9.8%	7.1%	7.2%	-1.8%	36
Pacific Southwest	19,415	13,859	40.1%	331,388	212,036	56.3%	5.9%	6.5%	-10.4%	16
Pacific Northwest	11,853	5,786	104.8%	170,840	93,209	83.3%	6.9%	6.2%	11.8%	8
0 - 2,999 vtf/h	5,151	4,543	13.4%	51,760	43,600	18.7%	10.0%	10.4%	-4.5%	16
3,000 - 5,999 vtf/h	10,004	13,138	-23.9%	99,909	118,817	-15.9%	10.0%	11.1%	-9.4%	31
6,000 - 11,999 vtf/h	13,338	14,777	-9.7%	161,009	171,102	-5.9%	8.3%	8.6%	-4.1%	36
12,000 and over vtf/h	37,328	35,298	5.8%	556,064	521,069	6.7%	6.7%	6.8%	-0.9%	43

Results based on responses from 126 resorts providing two seasons of data.

Capital Expenditures

Resorts were asked to summarize capital expenditures over the past two seasons plus the projected expenditures for the upcoming season (2016/17), within the general categories of new and upgraded lifts, other on-mountain facilities/support, real estate, and summer/fall-specific facilities and support. It should be noted that not all responding ski areas provided information regarding capital improvements (125 areas represented in the three-year timeframe).

Altogether, total expenditures on capital improvements by survey respondents increased by 19 percent from 2014/15 (\$243.7 million) to 2015/16 (\$290.1 million); capital expenditures are preliminarily projected to dip to \$273.5 million (down 6 percent) in 2016/17.

By category, spending on other on-mountain facilities/support, the largest category of capital spending, is declining, falling from \$156.3 million in 2014/15 to \$136.3 million in 2015/16, and is expected to continue to decline to \$102.8 million in 2016/17.

Spending on lifts has been fairly steady over the three-year period; the figure was up slightly from \$40.7 million in 2014/15 to \$41.5 million in 2015/16, and is projected to slip back to \$40.2 million in 2016/17.

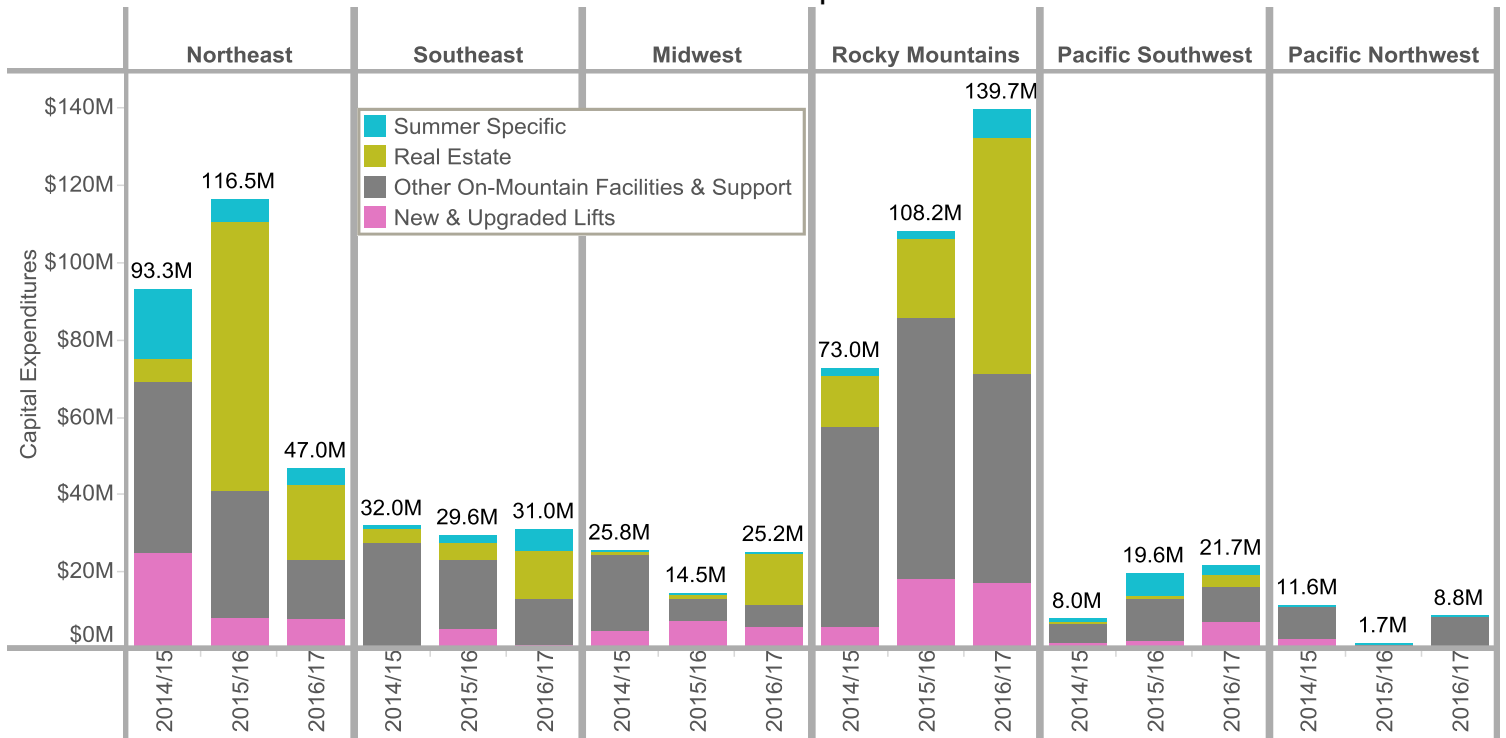
Expenditures on real estate have been on an upswing, rising from \$24.0 million in 2014/15 to \$96.5 million in 2015/16, with a projected rise to \$110 million in 2016/17.

Finally, spending on summer/fall-specific on-mountain facilities and support declined from \$22.7 million in 2014/15 to \$15.8 million in 2015/16, but is expected to rebound to \$20.4 million in 2016/17.

Based on cumulative past and planned spending over the three-year period (2014/15 – 2016/17), the largest share of investment over the period is earmarked for on-mountain facilities/support (49 percent), followed by real estate (29 percent), new and upgraded lifts (15 percent), and summer/fall-specific activities (7 percent).

By region, the greatest cumulative three-year investments are projected to occur in the Rocky Mountains (\$320.9 million), followed by the Northeast (\$256.9 million). Significantly less capital expenditure is seen in the Southeast (\$92.7 million), Midwest (\$65.5 million), Pacific Southwest (\$49.2 million), and Pacific Northwest (\$22.1 million). It should be cautioned that a small number of large projects can heavily impact the numbers, and that not all ski resort capital improvement projects are represented in the data (because of non-response to the survey and to the capital improvements question).

Figure 28
Sum of Capital Expenditures by Region*
Actual 2014/15 and 2015/16 / Proposed 2016/17



*Results based on responses from 125 resorts providing data in all three seasons

Appendix A: Actual Reported Downhill Snowsports Visits

Utilizing only actual reported downhill snowsports visits from areas which provided data for both this season and last, results generally parallel the overall projected visits presented above. The 171 responding areas with two seasons of data show a visitation increase of 0.6 percent. Finally, for a broader historical perspective, Table A-2 to follow summarizes actual results from the 157 resorts which actually reported visits for each of the past four seasons.

Table A-1
Downhill Snowsports Visits by Region—Survey Respondents Only: 2015/16 vs. 2014/15 (Two Season Comparison)

	Survey Respondents 2015/16	Survey Respondents 2014/15	15/16 vs. 14/15 % change	Number of Survey Responses
Northeast	6,774,255	9,493,992	-28.6%	42
Southeast	2,965,086	4,319,476	-31.4%	22
Midwest	2,215,406	2,666,752	-16.9%	27
Rocky Mountain	19,841,259	18,447,536	7.6%	50
Pacific Southwest	6,227,526	4,085,426	52.4%	19
Pacific Northwest	2,181,995	970,454	124.8%	12
Total	40,205,527	39,983,636	0.6%	172

Note: Table reflects downhill snowsports visits by resorts reporting data for both 2015/16 and 2014/15.

Table A-2
Downhill Snowsports Visits by Region—Survey Respondents Only: 2012/13 – 2015/16 (Four Season Comparison)

	Survey Respondents 2015/16	Survey Respondents 2014/15	15/16 vs. 14/15 % Change	Survey Respondents 2013/14	15/16 vs. 13/14 % Change	Survey Respondents 2012/13	15/16 vs. 12/13 % Change	Number of Survey Responses
Northeast	6,715,903	9,422,464	-28.7%	9,243,664	-27.3%	9,250,698	-27.4%	39
Southeast	2,685,083	3,890,780	-31.0%	3,900,826	-31.2%	3,395,044	-20.9%	18
Midwest	2,098,526	2,527,640	-17.0%	2,688,701	-22.0%	2,579,596	-18.6%	24
Rocky Mountain	19,792,110	18,418,645	7.5%	18,639,270	6.2%	17,368,132	14.0%	48
Pacific Southwest	6,046,169	3,972,177	52.2%	4,259,736	41.9%	5,616,129	7.7%	17
Pacific Northwest	2,181,995	970,454	124.8%	1,892,448	15.3%	2,265,280	-3.7%	12
Total	39,519,786	39,202,160	0.8%	40,624,645	-2.7%	40,474,879	-2.4%	158

Note: Table reflects downhill snowsports visits by resorts reporting visit data for all four seasons (2012/13 through 2015/16).

The difference in the results between actual reported visits from the respondent sample (Tables A-1 and A-2 above) and projected total visits (Table 1 in the body of the report) is a function of the modeling process which is used to estimate the downhill snowsports visits of non-responding resorts, taking into account the size and location of such resorts. Non-responding resorts, for which projected visits are extrapolated, are predominantly small to mid-sized resorts. The differences between actual responses and projected results is aided by the high proportion of actual reported total visits, approximately 40.2 million (or 74.6 percent) of total projected visits, which are accounted for by the responding resorts participating over the past two seasons. This reduces the incremental visits which are based upon projections generated by the model (25.4 percent).

Appendix B: Resorts Represented by Region and State 2015/16 (172 ski areas)

NORTHEAST (42)	MA Jiminy Peak Mountain Resort	NH Gunstock Mountain Resort	NY Gore Mountain	VT Killington Resort
	MA Ski Butternut	NH King Pine Ski Area	NY Holiday Valley Resort	VT Mount Snow Resort
	MA Wachusett Mountain Ski Area	NH Loon Mountain Recreation Corp.	NY HoliMont Ski Area	VT Okemo Mountain Resort
	ME Camden Snow Bowl	NH Mount Sunapee Resort	NY Maple Ski Ridge	VT Pico Mountain
	ME Mt. Abram Resort	NH Pats Peak	NY Peek 'n Peak Resort	VT Q Burke Mountain Resort LLC
	ME Sugarloaf	NH Shawnee Peak Ski Area	NY Swain Resort	VT Smugglers' Notch Resort
	ME Sunday River Resort	NH Waterville Valley Resort	NY Whiteface Mountain	VT Stowe Mountain Resort
	NH Attitash Mountain Resort	NH Wildcat Mountain	NY Windham Mountain Resort	VT Stratton
	NH Bretton Woods Ski Area	NY Belleayre Mountain	VT Bolton Valley	VT Sugarbush Resort
	NH Cranmore Mountain Resort	NY Bristol Mountain Resort	VT Bromley Mountain Resort	
NH Crotched Mountain Ski & Ride	NY Four Seasons Ski Center	VT Jay Peak Resort		
SOUTHEAST (22)	MD Wisp Resort	PA Elk Mountain Ski Resort, Inc.	PA Seven Springs Mountain Resort	VA Massanutten Resort
	NC Sugar Mountain Ski Area	PA Hidden Valley Resort	PA Shawnee Mountain Ski Area	VA Wintergreen Resort
	NJ Mountain Creek Resort	PA Jack Frost Mountain	PA Ski Big Bear	WV Snowshoe
	PA Bear Creek Mountain Resort	PA Liberty Mountain Resort	PA Ski Sawmill Family Resort	WV Winterplace Ski Resort
	PA Blue Mountain Resort	PA Montage Mountain	PA Whitetail Resort	
	PA Camelback Resort	PA Roundtop Mountain Resort	VA Bryce Resort	
MIDWEST (27)	IL Chestnut Mountain Resort	MI Mount Bohemia	MI Shanty Creek Resorts	MN Wild Mountain
	IN Perfect North Slopes	MI Mt. Brighton Ski Area	MN Afton Alps Ski Area	OH Snow Trails
	MI Boyne Highlands Resort	MI Mt. Holiday Ski & Recreation Area	MN Giants Ridge Recreation Area	SD Great Bear Ski Valley
	MI Boyne Mountain Resort	MI Mt. Holly Ski Resort, Inc.	MN Hyland Hills Ski Area	WI Alpine Valley Resort
	MI Caberfae Peaks Ski Resort	MI Mt. Zion	MN Lutsen Mountains	WI Cascade Mountain
	MI Crystal Mountain	MI Nub's Nob Ski Area	MN Mt. Ski Gull	WI Granite Peak at Rib Mountain State Park
	MI Indianhead Operations LLC	MI Porcupine Mountain Ski Area	MN Welch Village Ski Area, Inc.	
ROCKY MOUNTAIN (60)	CO Aspen Highlands	CO Ski Cooper	ID Tamarack Resort	NM Taos Ski Valley, Inc.
	CO Aspen Mountain	CO Ski Granby Ranch	MT Bridger Bowl Ski Area	UT Alta Ski Area
	CO Beaver Creek Resort	CO Snowmass	MT Discovery Ski Area	UT Brian Head Resort
	CO Breckenridge Ski Resort	CO Steamboat Ski & Resort	MT Montana Snowbowl	UT Brighton Ski Resort
	CO Buttermilk	CO Telluride Ski & Golf Resort	MT Red Lodge Mountain Resort	UT Deer Valley Resort Company
	CO Copper Mountain Resort	CO Vail Mountain	MT Showdown Montana	UT Park City
	CO Crested Butte Mountain Resort	CO Winter Park Resort	MT Whitefish Mountain Resort	UT Snowbasin Resort Co.
	CO Keystone Resort	CO Wolf Creek Ski Area	NM Angel Fire Resort	UT Snowbird Ski & Summer Resort
	CO Loveland Ski Area	ID Bald Mountain Ski Area	NM Pajarito Mountain Ski Area	UT Solitude Mountain Resort
	CO Monarch Mountain	ID Bogus Basin Recreation Area	NM Red River Ski & Summer Area	WY Grand Targhee Resort
	CO Powderhorn Resort	ID Schweitzer Mountain Resort	NM Sandia Peak Ski Area	WY Jackson Hole Mountain Resort
	CO Purgatory Resort	ID Silver Mountain Resort	NM Ski Apache Resort	
	CO Sipapu Ski & Summer Resort	ID Sun Valley Resort	NM Ski Santa Fe	
	PACIFIC SOUTHWEST (19)	AZ Arizona Snowbowl	CA Granlibakken Tahoe	CA Mountain High Resort
AZ Sunrise Park Resort		CA Homewood Mountain Resort	CA Northstar California	NV Diamond Peak Ski Resort
CA Bear Mountain Resort		CA June Mountain	CA Snow Summit Mountain Resort	NV Heavenly Mountain Resort
CA Boreal Mountain Resort		CA Kirkwood Mountain Resort	CA Soda Springs Ski Area	NV Mt. Rose - Ski Tahoe
CA China Peak Mountain Resort		CA Mammoth	CA Squaw Valley / Alpine Meadows	
PACIFIC NORTHWEST (12)	AK Eaglecrest Ski Area	OR Mt. Hood Meadows	WA Ski Bluewood	
	OR Anthony Lakes	OR Timberline Lodge & Ski Area	WA Stevens Pass	
	OR Cooper Spur Mountain Resort	WA Crystal Mountain, Inc.	WA The Summit At Snoqualmie	
	OR Mt. Ashland	WA Loup Loup Ski Bowl	WA White Pass Ski Area	