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Research
Paper
WO-36

Growth Potential of the Skier Market in the National Forests

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U.S. Department of Agriculture, Forest Service.
1979. Growth potential of the skier market in the National Forests. USDA For. Serv. Res. Pap. WO-36, 31 p., illus.

Nationwide study of the skier market, based on 1978 telephone survey, includes regional descriptions of active, inactive, and potential skiers, both downhill and cross-country. Included are estimates of the size of these market classes and detailed descriptions of public images of and attitudes toward skiing, its cost, attractions, facilities, and market needs. The skier market's potential for short term growth is estimated, both regionally and nationally, and the perceived adequacy of the existing developed ski area resource is assessed in terms of its ability to attract, and hold, new participants.

Keywords: Outdoor recreation; ski industry; ski area management; skier populations

Library of Congress Card Number: 79-600085
February 1980

For sale by the Superintendent of Documents, U.S. Government Printing Office
Washington, D.C. 20402

PREFACE

Downhill and cross-country skiing are among the snow and ice activities that accounted for 11.2 million recreation visitor-days in the National Forests in 1977. Approximately one of every two major ski resorts is located wholly or partially within the National Forest System, and the USDA Forest Service, the largest public supplier of downhill skiing opportunities, has 30 percent of all the ski lifts in the Nation. If the concept of "vertical transport feet" is used to measure ski-lift capacity, the National Forests account for 54 percent of the national supply.

Additionally, public land managers and ski industry spokespeople estimate that the number of cross-country skiers has at least tripled in the last few years.

If the demand for skiing and other outdoor recreation opportunities continues to increase as projected, it will be necessary to expand the Nation's recreational resource. This will require sound planning to insure that this resource is managed on the basis of responsive allocation of resources and development of facilities. Inadequate planning and insufficient increases in supply could lead to the degradation of the resource and the recreation experiences it supports, and have an adverse effect on the Nation's economy.

Apart from the individual and social benefits of outdoor recreation, the production and consumption of recreational goods and services stimulate local economies with business revenues, employment, payrolls, and profits. In turn, the earnings of businesses and individuals are spent on other goods and services, creating tax revenues which in part, provide additional recreation services.

For more than a decade, Forest Service recreation resource planners and ski industry officials, including members of the National Ski Areas Association, have argued that current and reliable data on skier market trends are needed to formulate effective development policies for National Forests. An indepth study of the downhill skier market and its growth potential is an essential element in guiding development planning for this capital-intensive activity that requires a long term land use commitment.

This survey provides "benchmark" data on the size of the active, inactive, and potentially active segments of the skier market. Its purpose is not to predict future growth of the skier market but to assess the potential for that growth and to identify the factors that may inhibit it. The study also provides important data for management in its descriptions of the three market segments and the perceptions of skiers. Obviously, the correction of perceived problems will both strengthen the skier market and enhance the long term investment of Forest Service ski areas.

Further analysis of the data generated by this survey is underway; results will be published as separate research reports and include descriptions—by region—of very high potential skiers and very active skiers (those who ski more than 20 days per year). Also, a planned reassessment of the skier market in 5 years will provide reliable trend data on the three market segments for both downhill and cross-country skiing.

The survey data were collected and summarized by Opinion Research Corporation, Princeton, N.J. Survey design and data analysis were by Dr. Wilbur F. LaPage, Northeastern Forest Experiment Station, Durham, N.H.; and Stacy Standley, Sno-Engineering Co., Franconia, N.H., and Aspen, Colo. The study was suggested and reviewed by Dr. H. Fred Kaiser, Jr., of the Forest Service's Resources Program and Assessment staff, which provided the primary funding for this report. Additional technical and financial support were provided by Prof. Tommy Brown, Department of Natural Resources, Cornell University.

For more information about this survey or other studies in progress, please write: National Skier Market Survey, P.O. Box 640, Durham, N.H. 03824.

CONTENTS

THE SKIER MARKET

The skiing cycle

Skiing occupies relatively little time in the life of the average skier. Its popular image is that of a sport "for the young and the wealthy." All skiers pass through phases that include periods of noninvolvement, periods of more or less intense involvement, periods of temporary inactivity, and eventual permanent withdrawal from the skier market. These phases provide a realistic

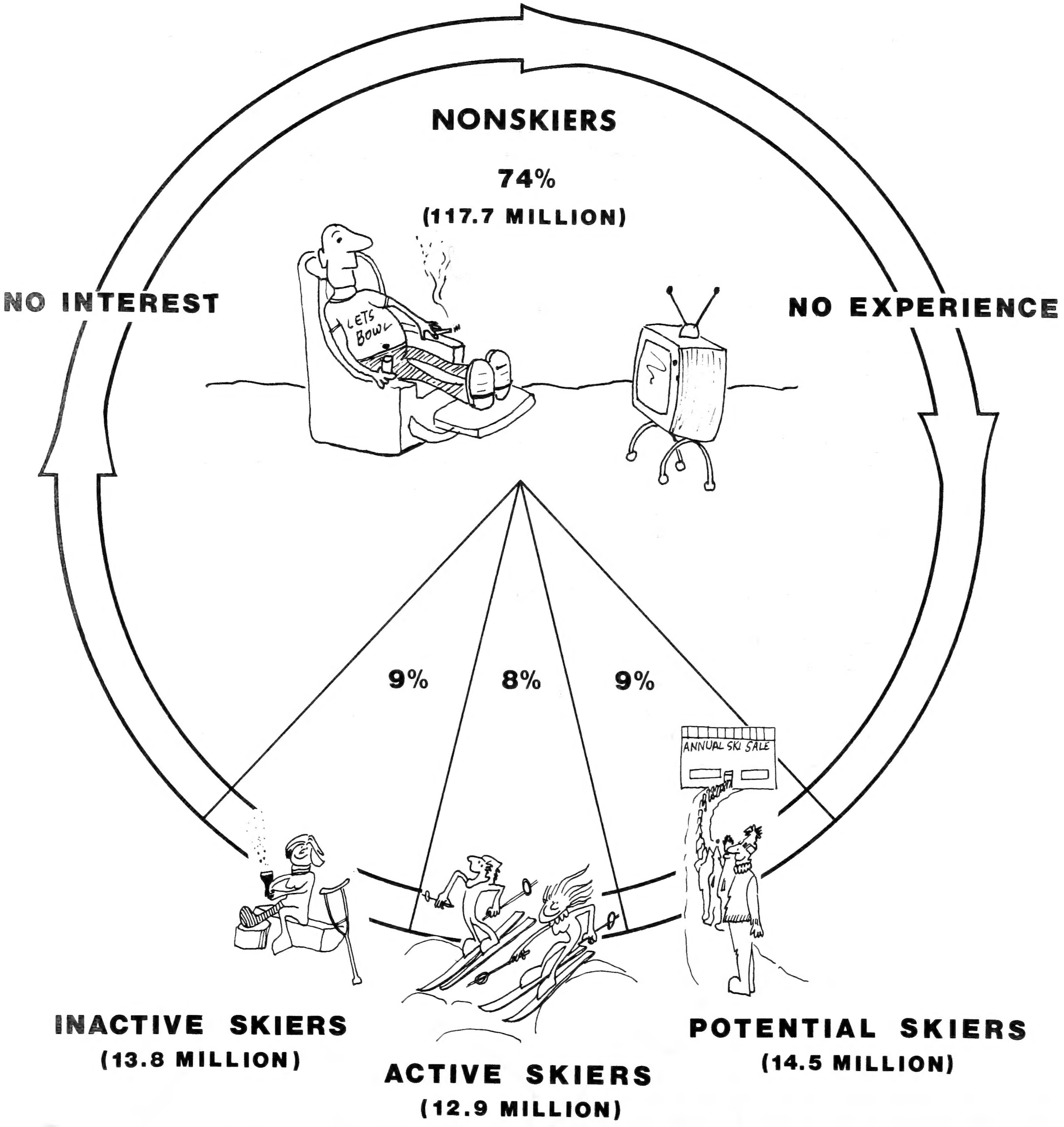

Figure 1.—*The skiing cycle is a model of skiing market growth based on patterns of participation and nonparticipation. There is a high probability that one-half of the skiers in both the potential and inactive market classes will have an impact on the active skier market in the future.*

model for studying the skiing market for planning and investment purposes; at any given time, the market can be visualized as having an active participant component, a potential participant component made up of persons who are highly likely to try skiing, and an inactive participant component made up of skiers who have temporarily stopped skiing (fig. 1).

The publishing and equipment merchandising sectors within the recreation industry have long recognized the importance of appealing to the nonparticipating segments of the market because purchases—particularly magazine purchases—provide an opportunity for nonparticipants to express a continuing interest in the activity until they have an opportunity to participate. An understanding of the nonparticipating segments of the skier market is equally important to managers of ski resorts. In many cases, the reason for temporary inactivity by skiers, as well as for the perceived barriers to participation, may be the failure of the industry to communicate with potential skiers. Continuing changes in conditions, rates, facilities, opportunities, and clientele are all potential sources of complexity, confusion, and misinformation that can delay entry or reentry into the skiing market.

The objectives of this study were to:

1. Examine the current skier market—and the potential additions to it—by determining the sizes of the major market classes that are most likely to have an impact on the industry in the near future. These classes include: those who now ski and are likely to continue to ski (*active skiers*); those who have never skied but are most likely to begin skiing in the near future (*high potential*); and those who have stopped skiing but are most likely to return to skiing in the near future (*temporarily inactive*).
2. Determine the images of skiing and the perceptual barriers to participation held by these three major classes.
3. Develop descriptive market facts about each of these classes.

Market class size

To develop estimates of the sizes of the potential, active, and inactive skier markets, "screening" interviews were conducted by telephone with 2,191 persons from 7,106 households containing 15,446 adults (16 years of age and older). Each adult in these households was classified as having: (1) never skied and unlikely to

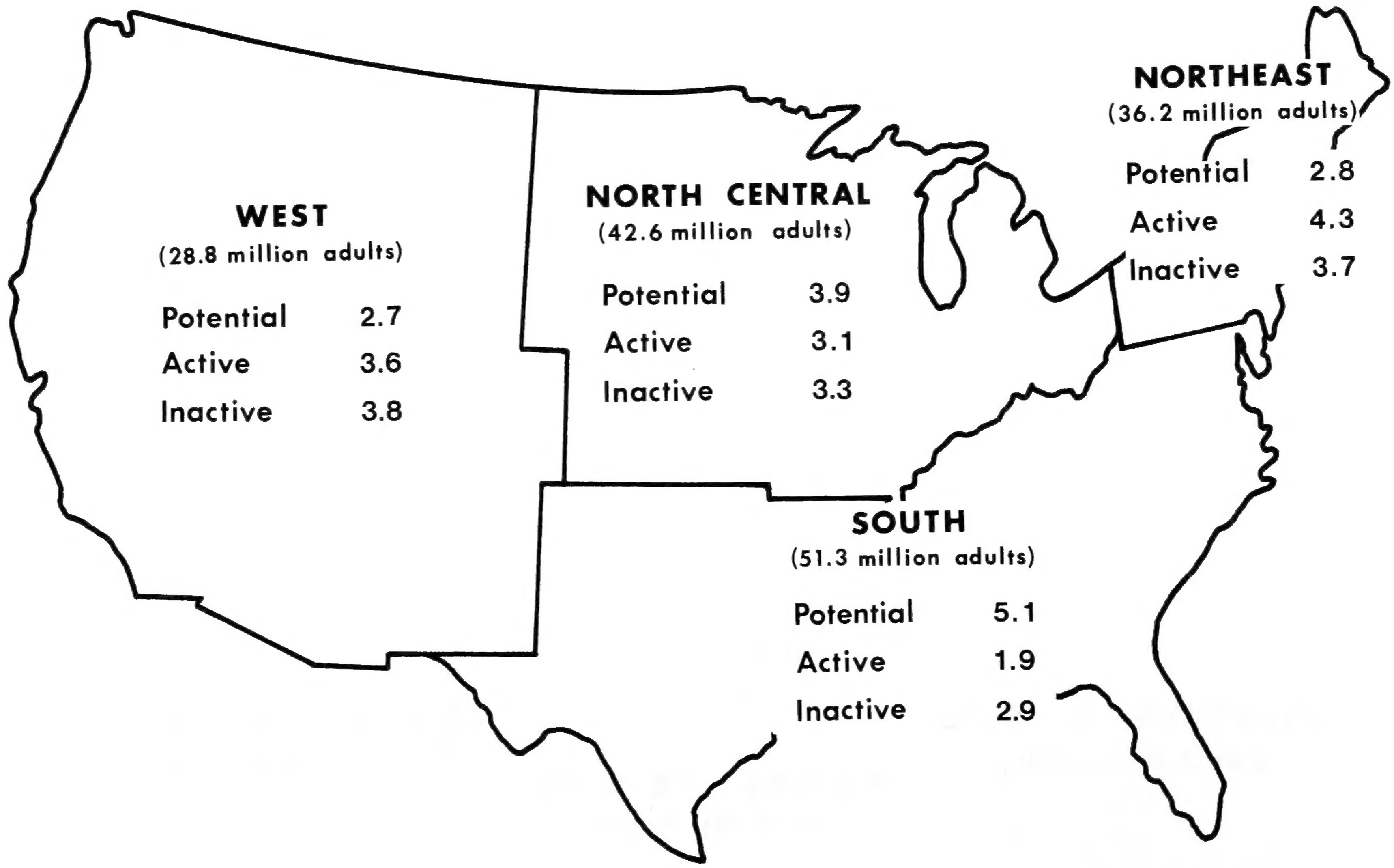

Figure 2.—*Distribution, by major census region, of the gross number of potential, active, and inactive skiers, both downhill and cross-country, in millions of adults (age 16 and older).*

try skiing in the near future (*nonskier*); (2) never skied but likely to try skiing in the next few years (*potential skier*); (3) skied in the past but not in the last season (*inactive skier*); and (4) skied since November 1977 (*active skier*).

Of the 7,106 households contacted, 10.8 percent contained at least one active skier, 14.3 percent had at least one potential skier, 14.4 percent had one or more inactive skiers, and 82.9 percent percent contained at least one adult who never skied and probably never will (table 1). The sample design is described in the appendix. Obviously, many households contained adults in more than one category as the total exceeds 122 percent; because of this overlap, *these household percentages are not an accurate representation of the actual population sizes of the skier market classes.*

By major region of the United States, the estimates of these skier market segments (table 2) reveal a nearly even regional distribution of inactive skiers and a substantial potential skier market in the Southern and North Central States (fig. 2).

Market class segments

The categories of "inactive skier" and "potential skier" can be further refined to assess their probable future impact on the market. Inactive skiers are categorized as:

TEMPORARILY INACTIVE—Skiers who did not ski during the current season but expect to ski during the 1978–79 season (49.9 percent of all inactives).

PERMANENTLY INACTIVE—Skiers who did not ski during the season and indicate that they will probably never ski again; or if they ski again will do so sometime after the 1978–79 season (50.1 percent).

Potential skiers are categorized as:

HIGH POTENTIAL—Nonskiers under 26 years of age (on the basis of current age classes of active skiers) who indicate an interest in skiing, that is, most likely to adopt skiing (49.8 percent of all potentials).

MODERATE POTENTIAL—Nonskiers 26 through 34 years of age who indicate an interest in skiing (20.1 percent).

LOW POTENTIAL—Nonskiers 35 years of age or older and who indicate an interest in skiing (30.1 percent).

The dichotomy between temporary and permanent inactivity, though arbitrary, is solidly supported by numerous significant differences in skier attitudes, patterns of past participation, and demographic and socioeconomic characteristics. For example, the median age of temporarily inactive skiers is 27, and they have skied (on the average) within the past 2 years. Permanently inactive skiers (on the average) have not skied in more than 5 years; their median age is 37. Consequently, the remainder of this report ignores the permanently inactive skiers because they are unlikely to have any significant impact on the market.

There were no significant differences among the proportions of high, moderate, and low potential skiers who have read skiing magazines and other articles on skiing, watched skiing competition on television during the previous year, and have friends who ski. Among the activities listed that they would like to take up over the next 2 years, only the low potential group differed significantly from the average of 43 percent who expressed an interest in downhill skiing. No significant differences were found in the reasons for never having taken up skiing among the three potential classes. In summary, our classification scheme does not appear to be reinforced by the data—neither is it refuted.

Because of the possible impact of high potential and temporarily inactive skiers on the skiing market, it is essential that we take an indepth look at the characteristics and perceptions of these skiers, and compare them with those of active skiers. In the sections that follow, we examine the past, present, and future of skiing through the eyes of three of these market segments: those having a high potential to adopt skiing; active skiers; and temporarily inactive skiers.

THE IMAGE OF SKIING

In assessing the image of skiing, three broad areas of people's perceptions of downhill skiing were examined:

1. General perceptions of skiing, using 14 descriptive phrases relating to its attraction and appeal.
2. Local-regional images of the adequacy of available developed ski facilities.
3. Perceived costs of skiing and their apparent impact on participation.

General perceptions

In examining people's general perceptions of skiing as an activity, conflicting reports on barriers to participation were common. For example, 4 out of 10 potential skiers said that they had not taken up skiing because they lacked the time; yet less than 10 percent perceived skiing as "too time consuming." Image "profiles" of the three major market classes are remarkably similar (table 3), as are the regional perceptions of skiing. There were significant differences in images among market classes on skiing's risks, crowdedness, and costs.

Potential skiers are more likely to perceive skiing as appealing "mainly to the young." And skiers in this class tend to be *slightly* more likely to see skiing as "dangerous" and "requiring skill." However, on the plus side, the high potential group is *much less* likely to have images of crowding and high costs. Perceptions of high cost and crowding increase dramatically from potential to active skiers!

Relatively few perceptual differences were found between men and women. Among potential skiers, women were significantly (90 percent level) more likely to see skiing as "dangerous," "expensive," and "hard work." However, these sex-related differences in image nearly disappear among active women skiers. Temporarily inactive women are more likely to be concerned with crowding and costs, but less concerned with accessibility and skill requirements than their male counterparts.

Local-regional images

In response to the question, "Do you feel that the developed ski facilities are adequate in your region?", similar patterns of response emerged among potential, active, and inactive skiers across all regions of the country (table 4). Potential skiers were least likely to perceive deficiencies in downhill facilities; however, the need for more and better downhill facilities was the most common recommendation in every region.

Facilities are least likely to be perceived as inadquate in the Northeast and the West, and most commonly reported in the South and North Central States, though reports from the South of inadequate facilities, and the complete absence of skiing facilities, were surprisingly low.

Assuming that the images of active skiers most nearly represent actual regional conditions, it would seem that potential skiers might benefit from better information on available skiing opportunities; but they may develop poorer images of downhill facilities as they become active. The similarity of perceptions of active and temporarily inactive skiers suggests the possibility of real barriers to returning to active status along with an increased movement from active to inactive if there is no improvement in skiing conditions.

Perceived costs

Skiing's most consistently negative image is its high cost. More than one out of every two potential skiers views the activity as "expensive." Active and inactive skiers are even more likely to agree that it is costly! In response to the question of whether the various costs incurred on a ski trip are "too high," "about right," or "too low," potential skiers were less likely to perceive lift tickets as overpriced than either active or inactive skiers. However, equipment rentals and ski-trip transportation were more likely to be considered by the potential skier as too costly (table 5). In none of the market classes did the perception that costs were "too low" exceed 2 percent.

Despite several significant regional variations, almost identical proportions (approximately one-third) of potential, active, and inactive skiers felt that ski lift tickets were priced "about right." Potential skiers are much less likely to perceive lift tickets as overpriced, and significantly more likely to be concerned about the costs of ski-trip transportation than active or inactive skiers.

Eighty-four percent of the inactive skiers "agreed" or "possibly agreed" that skiing is an expensive sport. Like the potential skiers, inactive skiers agree that skiing is expensive, but cost as a barrier to participation was not mentioned by a majority of inactive skiers. Collectively, other noncost factors seem more influential in the decision to postpone skiing. In general, southerners were the least cost conscious, while westerners and northeasterners were most aware of costs.

In summary, the impact of the perceived cost of skiing on participation varies by respondent group. Cost influences a higher proportion of active than inactive and potential skiers, and has, at least in the actives' judgment, reduced their level of desired participation. For the potential skiers, cost has deterred nearly one out of two from skiing, and cost seems a major barrier to returning to the skiing market for the same proportion of temporarily inactive skiers (table 6). Skiing *is* perceived as an expensive sport, and that perception apparently has had an impact on limiting the size of the market.

PATTERNS OF PARTICIPATION

Although our primary objective is to better understand the potential skier, the two experienced market classes—currently active and temporarily inactive skiers—provide the only realistic means of assessing possible skier behavior in the future.

Downhill versus cross-country

Nearly 90 percent of the United States skier population is made up of downhill skiers, plus those who ski both downhill and cross-country. Approximately 18 percent of all active skiers consider themselves both downhill and cross-country skiers, but they do not necessarily participate in both activities during any given year. (The actual incidence of participation in both types of skiing during the past year was not determined, so "active participation" in both downhill and cross-country skiing may be slightly overestimated.) About 13 percent of the active and 6 percent of the temporarily inactive skiers are exclusively cross-country skiers (table 7).

Downhill skiers had a median of 4.3 years of participation. The regional differences ranged from 2.6 years in the South to 5.1 years in the Northeast (table 8). Similarly, 66 percent of all downhill skiers had skied less than 7 years; regionally, the percentage of skiers participating less than 7 years ranged from 58 percent in the Northeast to 71 percent in the South. Skiers in the Northeast tended to be the most active and enduring participants. As would be expected, Southern skiers generally have lower skill levels and participate the least.

Inactive skiers participated for 2 to 3 years before becoming inactive, and classified themselves as predominantly beginners and novices, except in the West where the median experience level is low intermediate (table 9). Dropping out tended to occur early in the skiing cycle while skiers were still relatively unskilled. Seventy-five percent of all inactive skiers participated for 6 years or less, suggesting that the industry is having difficulty keeping participants after successfully influencing them to take up skiing.

Ski vacations

Nearly one-third of all active downhill skiers took a ski vacation of at least 4 nights during the 1977–78 ski season. Over one-half (54 percent) of the Southern skiers took an extended ski trip, while only one-third of the skiers in the other three regions took trips. Seventy-four percent of all downhill skiers averaged at least one trip of less than 4 nights in each year over the last 5 years (table 10).

Skiers in the three snow regions did most of their skiing within their own region. In the Northeast and West, more than 90 percent of the skiers used their own region's facilities. Southern skiers, as would be expected, traveled out of their region most frequently, but still spent one-fifth of their skiing vacations in the South (table 11). The Northeast and West are net importers of visiting skiers while the South and North Central areas are net exporters. The regional distribution of projected visits by potential skiers in the next 2 years (1978–80) closely parallels that of currently active skiers (table 12).

The States most frequently mentioned as having been visited by skiers during 1976–78 and the potential skiers who expect to ski in those same States (in percent) are:

State	*Active 1976–78*	*Potential 1978–80*
Colorado	21	25
California	21	11
Vermont	15	5
New York	14	9
Pennsylvania	12	11
New Hampshire	9	3
Michigan	9	7
Wisconsin	8	5
Massachusetts	7	1
Washington	6	4
Minnesota	6	4

In summarizing skier visit activity (trips of more than 1 day in length) by region, the West accounted for 43 percent of all visits, the Northeast, 32 percent; the north-central region, 19 percent; and the South, 5 percent.

Sex ratios

Men and women downhill skiers tend to have similar characteristics in their skiing experiences. Both sexes had the same ratio of downhill to cross-country participants. They have skied in similar States, taken similar ski vacations in the past, and are distributed equally among regions.

Sex-related differences include ability levels; 62 percent of the women who responded were in the novice, beginner, and low intermediate levels versus 41 percent of the men at these same levels. Women skiers reported skiing fewer total days per season—41 percent stated they skied 6 days or less—compared with 31 percent of the men. At the other end of the scale, 11 percent of the women skied 29 days or more versus 16 percent for the men.

Although it would seem that men were the more active skiers, the median figures for men and women were only 1.7 days apart during the 1977–78 season; men skied a median of 9.9 days, and women 8.2 days. The median ski vacations were 1.6 trips for men and 1.3 trips for women. (During the 1977–78 season, active skiers reported significantly fewer skiing days than they averaged during each of the preceding 5 years.

However, this is probably due to recall bias and confusion in the way the question was interpreted.)

Among the inactive skiers, men and women each represent 50 percent of the population. Regionally, however, women significantly outnumbered men in the Northeast (58 percent to 42 percent); in the South, the reverse was true (55 percent for men versus 45 percent for women). When they were active, both men and women had participated 2 to 3 years and averaged 8 days of skiing per year.

Age classes

Four age classes were used in examining the effects of age on active skier behavior: 16 to 19 years, 20 to 29, 30 to 39, and 40 years and older. As might be expected, downhill skiers became more active in cross-country skiing as they grew older. Only 15 percent from the 16- to 19-year group participated in cross-country, while 27 percent from the 40 years and older group indicated that they participated in cross-country skiing.

Naturally, the length of participation in skiing increased as a function of age. The relative skill level of skiers tended to increase as a function of age, though the differences were small and were not significant.

Older skiers reported skiing a greater number of days per season (table 13); during the 1977–78 season, a greater proportion took a ski vacation of at least 4 nights.

Skiers 30 and older were more inclined to ski with the family, splitting their skiing frequency about equally between family and friends. Younger skiers usually skied with friends.

Cross-country skiers

Thirteen percent of the active skiers were exclusively cross-country participants; 21 percent of the downhill skiers also participated in cross-country skiing. Therefore, on a weighted basis, 18 percent of all active skiers participate in cross-country.

Cross-country skiers were found to be new to the activity; the median length of experience was 2.6 years for active and 2.5 years for inactive skiers. Their skill levels reflected their recent entry, 43 percent being novices or beginners, and another 29 percent being low intermediate skiers.

Regionally, the Northeast received 41 percent of the cross-country skier trips (more than 1 day in length) during the last 2 years, followed by the north-central region (36 percent), the West (30 percent), and the South (3 percent). The leading States in cross-country trips were:

State	*Percent*
Wisconsin	18
Vermont	16
California	12
Michigan	11
Minnesota	10
New York	10
Massachusetts	8
New Hampshire	7

The ski travel habits of the cross-country skier were not as extensive as those of the downhill skier. Only 14 percent took a ski vacation of 4 nights or more during the 1977–78 ski season. Over the last 5 years, 60 percent have taken one or more ski vacations of less than 4 nights each year—the median was two trips per year (table 14).

THE DEMOGRAPHICS OF SKIING

The social, economic, and demographic descriptions of high potential, active, and temporarily inactive skiers can provide important insights and potential marketing clues for reaching different segments of the skiing population. For example, the populous Northeast has, numerically, the most skiers; however, on a per capita basis, the West has the most active and temporarily inactive skiers. Also, on the basis of regional adult populations (16 years of age and older), the South has significantly fewer active and inactive skiers, but the largest "reservoir" of potential additions to the skiing market (table 15).

Mobility

Skiers were found to be highly mobile, 50 percent or more from each market class moving at least once in the last 5 years (table 16). Active skiers in the Northeast and South were significantly less mobile than their counterparts in the north-central region and the West. The inactives, in general, were more mobile than potentials and actives; and Western inactives were much more mobile than inactives from the other three regions. This suggests that residential mobility may be responsible for active skiers becoming temporarily inactive. Potential skiers were nearly as stable as active, but there were significant regional differences.

The types of communities in which skiers reside reflect expected regional differences (table 17); however, place of residence does not vary significantly among the three major market classes.

Sex ratios

Fifty-two percent of the downhill and inactive skiers were men; of potential skiers, 54 percent were women. Significantly more women expressed an interest in taking up skiing (table 18). Regionally, there were significant differences in the Northeast between actives and inactives, and in the north-central region and the South between potentials and actives. In the Northeast, South, and West, there were significant differences in sex ratios between potentials and inactives. Data from the U.S. Bureau of the Census indicate that there are more men in the 16- to 25-year class; so the greater number of potential women skiers is not explained by differences in population.

Marital status and age

Significantly more potential skiers were single, reflecting their lower median age (table 19).

The median age of high potential skiers (19.2 years) was lower than that for other market classes because of the definition of potential skier (those 16 to 25 years old who have expressed an interest in the sport). The median age of active downhill skiers was 26 years, and 27 for inactives. Age alone does not seem a factor in the decision of active skiers to become inactive (table 20).

Income and occupation

Potential skiers had a significantly lower median income ($15,000) than active and inactive skiers, again reflecting the lower age class of potential skiers. However, there were no consistent differences in household income between active and inactive skiers across regions ($20,000 for actives and $19,000 for inactives).

While incomes of potential, active, and inactive skiers do follow a logical pattern, on the average, income within the skiing cycle is most useful as a descriptive statistic of the total skier market. In contrast with the national average of about $14,000, the median income was $15,000 for potential skiers compared with $20,200 for active skiers and $19,200 for temporarily inactives (table 21).

The ranking by employment classification was similar for all three market classes, as well as among regions (table 22). Active and inactive skiers were twice as likely to be professionally or technically employed as potential skiers.

MARKETING IMPLICATIONS

The concept of a cycle in skiing implies that the skiing market itself is similarly dynamic as active skiers drop out and are replaced by potential skiers. The various forward and reverse rates of flow in the market cannot be estimated on the basis of this study alone. Until reliable estimates of trends in sizes of each market segment can be generated, it is necessary to make a number of assumptions about these segments and their implications for the skiing industry.

Possible additions to market

The most obvious implication of this study is the apparent existence of large numbers of possible additions to the ranks of active skiers from the high potential and temporarily inactive market segments. The extent to which the industry can encourage an accelerated movement into the active segment clearly is limited by many factors beyond its control.

Similar barriers to entry and reentry were perceived by the high potentials and temporarily inactives. For both segments, lack of time and lack of opportunity were the leading reasons. The cost of skiing was seen as limiting by nearly one out of two potential and inactive skiers. Clearly, time, opportunity, and costs are interrelated. New, more accessible ski developments that offer more opportunity and lower prices could partially counter these constraints.

Any realistic evaluation of these impacts must examine: (1) the adequacy of our estimates of the size of these market segments, and (2) the extent to which *real* barriers to increased participation have been identified by this study.

Reliability of estimates

The estimates of active downhill skiers or their frequency of participation, or both, seem on the high side when compared to the known number of downhill skiing opportunities in each region (table 23); this is probably due largely to a tendency to exaggerate when recalling and reporting participation This bias alone may result in an overestimate as high as 40 percent in annual skiing days (on the basis of responses to our question about past participation). Our estimate of skier days also is biased by the inclusion of some cross-country skiing activity reported as a unit by skiers who skied both downhill and cross-country in 1977–78. And the resulting figures on regional use of developed ski areas are somewhat overestimated because the available data on numbers of enterprises excludes rope tow operations.

The proportion of inactive skiers assumed to be only "temporarily inactive" was estimated at one out of every two on the basis of their intention to return to active status within the next two seasons. The estimated 6.9 million temporarily inactive skiers probably include the best prospects for market expansion—but those prospects are considerably fewer than 6.9 million if only the more limiting constraints to reentry are considered: lack of time (45 percent), lack of opportunity (23 percent), cost (45 percent), loss of interest (12 percent), and lack of ability because of health or age (10 percent). Further, 30 percent had not skied more recently than the 1975–76 season; this lapse of 3 years probably is close to the threshold of the permanent dropout from the market.

Further analysis of this data may yield insights as to the contingent nature of these factors, both individually and in combination. While these factors are not strictly additive, in combination they do indicate that upwards of 90 percent of the temporarily inactive skiers (those lacking interest, ability, time, and opportunity) are unlikely to have an immediate impact on the market unless these perceived constraints to reentry can be neutralized.

A similar conditional analysis of the 7.3 million "high potential" skiers drastically reduces the size of that market segment considering the perceived limitations of: lack of time (43 percent), lack of opportunity (33 percent), and lack of interest (11 percent). Again, assuming these categories to be additive, a conservative estimate of 9 of every 10 high potential skiers face limitations of time, interest, and opportunity that will prevent them from entering the market in significant numbers.

CONCLUSIONS

Implications for planning and marketing

Until trends in market size can be determined by repeating this study at 5-year intervals, growth can only be assumed. However, it is clear that growth in each segment of the skier market is possible through:

- The activation of potential skiers.
- The reactivation of skier market dropouts.
- An increase in the rate of participation by active skiers.

For example, the current size of each of the first two market segments could be doubled by the addition of 7 million nonskiers with a high potential for adopting the activity, and another 7 million temporarily inactive skiers. Of course, this type of growth in downhill skiing will be limited by factors such as rising transportation costs and the number of developed facilities, but cross-country skiing, one of the fastest growing outdoor activities does not face these limitations. Until now, downhill and cross-country skiing have been viewed as mutually exclusive activities, or at least as substitutes for one another. However, they should be considered as mutually reinforcing throughout the entire skiing cycle. Interest in both doubles the potential for becoming involved in skiing, and halves the probability of dropping out. This dual interest might even extend the period of involvement, making skiing truly a "lifetime" sport.

The third type of possible growth, an increase in the rate of participation by active skiers, is highly probable in the immediate future for several reasons. First, the casual skier will drop out as transportation costs increase, thus reducing the average rate of participation. Second, the growth of cross-country skiing increases both the number of skiing days and the availability of the resource. Third, there is enormous potential for increasing participation through marketing.

Today, roughly 20 percent of the skiing population is responsible for nearly 50 percent of all skiing activity. Stated another way, nearly 80 percent of all skiers probably would ski more if there were incentives in the form of pricing, packaging, and delivery of ski area services.

Promoters of skiing are in the frustrating position of offering a recreational service that is high in popular appeal but also high in economic and demographic barriers to converting that appeal into participation. For example, our population estimates of potential skiers by age class indicate that skiing's appeal drops sharply after the age of 29 (table 24). And projected population statistics indicate that the industry can expect to draw new skiers from continually declining numbers of high potential skiers between the ages of 25 and 29 (fig. 3).

While this study does not provide indepth answers to questions about why skiing's image is consistent across all regions and market classes, at least three elements of that image deserve careful study from a marketing viewpoint. Foremost is the image of high cost. Compared to other activities that require large investments in equipment, skiing's total costs probably are competitive on an activity-day basis. In fact, in terms of development and operational costs and investment risks, skiing probably is one of outdoor recreation's best consumer bargains—and could be more effectively promoted as such.

Similar to the image of cost is that of "crowding." While approximately one of every three potential skiers views the activity as crowded, more than one of every two active and temporarily inactive skiers share that same concern.

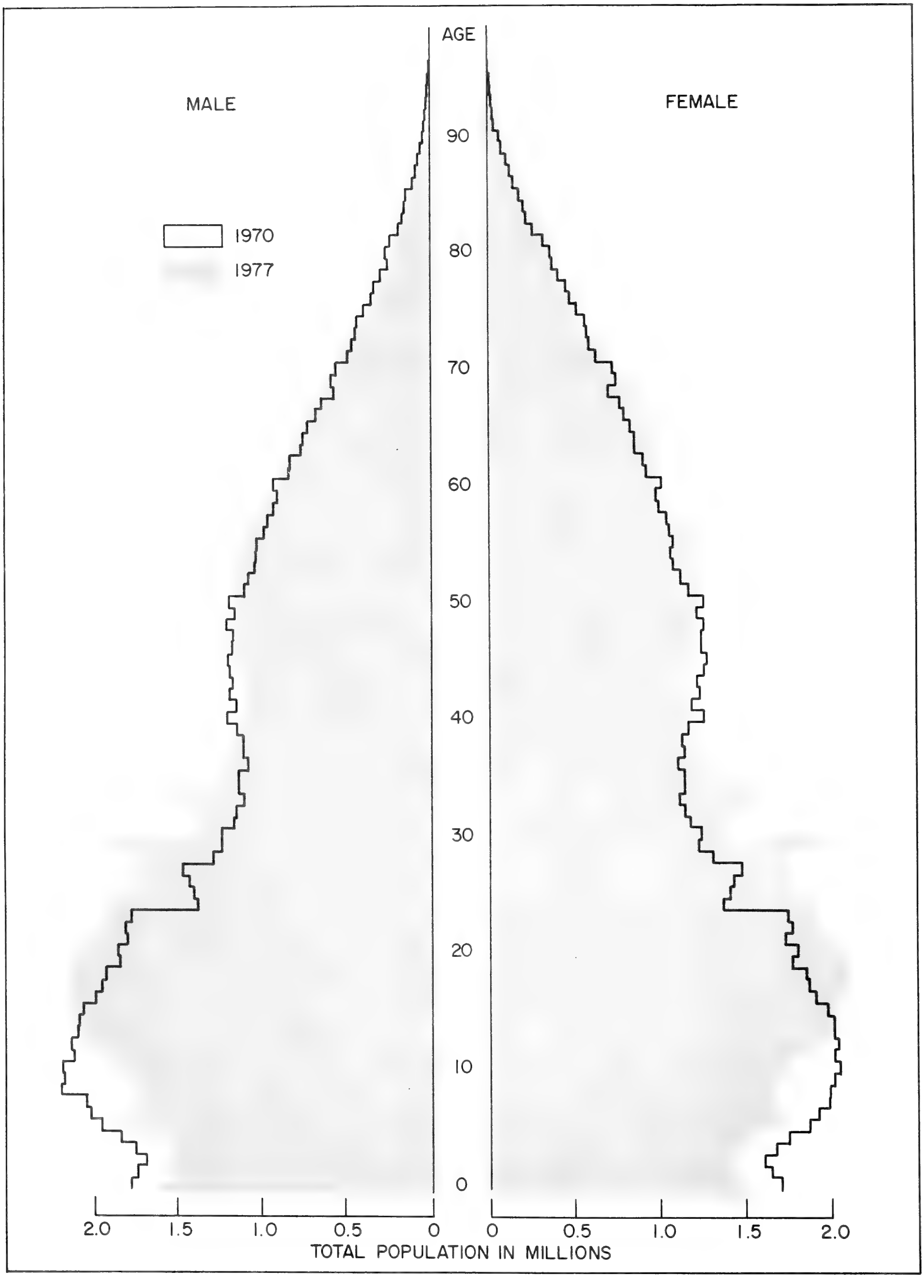

Figure 3.—*Distribution of the total United States population, by age and sex, April 1, 1970, and July 1, 1977.* (*Source: U.S. Dep. Commer. Bur. Census. Population estimates and projections. Curr. Popul. Rep. Ser. P-25, No. 721. April 1978*).

This means possible disappointment for the new skier, and a serious barrier to reactivating temporary dropouts. Midweek promotional discounts would be one way of dealing with cost and crowding simultaneously.

The image of "danger," a concern among many potential skiers, drops markedly among active and temporarily inactive skiers. This suggests that concerns about danger are exaggerated among those considering skiing.

If images of crowding, danger, and skill requirements are recognized as interrelated, a marketing attack on several fronts is possible. For example, concern about crowding should diminish through programs that emphasize skier courtesy and by expanding the reporting of ski conditions to include percent of capacity. Other programs would emphasize that skill levels are accounted for through careful area design, and, with the cooperation of equipment manufacturers, that the risk of injury has been minimized by advances in technology.

Industry concerns such as slowing the rate of flow through the skiing cycle—making skiing a lifetime sport—can be resolved only by the actions of individual ski area operators. Skiing *can* retain its youthful image without losing veteran skiers if area operators are alert and responsive to the changing perceptions of skiers, and if the industry provides accessible and satisfying skiing experiences commensurate with future market growth.

Implications for Research

The sport of skiing, both downhill and cross-country, needs public lands to expand, but the supply and availability of public lands are direct constraints on this demand. Of the major outdoor recreation activities, skiing probably has the fewest available alternate sites on private lands. This suggests the need for a "partnership" between ski area operators and those responsible for recreation development on lands administered by the Forest Service.

The fact that a team effort is required to produce quality skiing experiences also suggests the need for a jointly developed data base to guide decisionmakers. For example, attendance records at winter sports sites provide an important—but severely limited—view of the future of these sites. But in combination with data on trends in the size of the skier market, market differentiation, and the changing perceptions of skiers, these records would provide a clearer view of that future. However, this monitoring of market trends is expensive, so the costs should be shared among all beneficiaries.

Shared research also would avoid problems related to "whose data to believe," insure a better research product, and improve the likelihood of research results finding early application by managers. But before shared research by the ski industry and the Forest Service can become a reality, there must be an education campaign on the nature of this partnership.

APPENDIX

Sample design of national skier market survey

Overview.—The sampling plan detailed below allowed for the collection of approximately 7,000 telephone screening interviews with households in the contiguous States. The design can be characterized as a two-stage cluster sample in which primary selections are banks of 100 consecutive telephone numbers. This method reduces the number of nonproductive dialings (nonworking and business telephone numbers) considerably when compared to simple random digit dialing. More important, this design gives all household telephone numbers, both listed and unlisted, an equal probability of selection, without knowing beforehand the actual count of residential numbers in each cluster of 100 telephone numbers.

Details of the sample design.—The first step in the design was to construct a frame of primary sampling units (PSU's) using a computer tape made available by AT&T Long Lines Division. This tape contains all area code three-digit prefix (central office code) combinations currently in service. To these working combinations, all possible choices for the next two digites (00, 01, . . . , 99) were added on. These eight-digit numbers served as PSU's.

Using simple random sampling with replacement, a PSU was selected (e.g., 201-751-42). A two-digit random number was then generated, and attached to the selected eight digits to produce a complete 10-digit telephone number. This primary number was then dialed, and if it was determined to be a residence, the bank of 100 telephone numbers that was initially selected (e.g., 201-751-4200 to 201-751-4299) was retained in the sample, and a screening interview was attempted at that primary number. If the selected primary number was a nonresidential telephone number or a nonworking telephone number, the PSU was not selected. This procedure was repeated until 1,580 PSU's were selected.

Within each selected PSU, an additional two-digit random number was generated, and added on to the first eight digits of the telephone number. This telephone number was dialed, and if it was a residential number, a screening interview was attempted. This procedure was repeated until seven residential numbers were reached in each of the 1,580 selected banks of 100 telephone numbers. With a cluster size of seven, and an expected response rate of 63 percent, approximatly 6,970 completed screening interviews were expected. The interviewing process resulted in 7,106 completed screening interviews, for a 64.2 percent response rate.

Respondent selection procedure.—When contact was made with a responsible person in the household, all persons in that household 16 years of age and older were listed from oldest to youngest. Each person was then classified by this person as an inactive, active, or potential skier, or as someone who had never skied and was not likely to ever ski. If a household contained one or more potential skiers, one person was selected using a respondent selection table for a followup interview. If the household contained no potential skiers, but one or more inactive skiers, one person was selected using a respondent selection table for a followup interview. If the household contained no potential or inactive skiers, but one or more active skiers, one person was selected using a respondent selection table for a followup interview. If there were no potential, inactive, or active skiers in the household, the interview was terminated. Two callbacks were made to all eligible telephone numbers in an attempt to complete a followup interview.

This skier selection procedure was instituted to maximize the number of followup interviews with potential skiers. The distribution of the completed interviews over the three skier groups is as follows:

Type of skier	*Number of followup interviews*
Potential	960
Inactive	655
Active	576
Total	2,191

The sample design is self-weighting, because households were selected with equal probabilities; however, the chance of selecting a potential, inactive, or active skier was inversely proportional to the number of skiers in each group (for example, with two potential skiers in a household, each has a one out of two chance of being selected). The data indicate that 95 percent of the potential skier households contain only one or two potential skiers; 98 percent of the inactive skier households contain only one or two inactive skiers; and 88 percent of the active skier households contain only one or two active skiers. This very high concentration within a small range of sizes led us to use unweighted estimates and maintain the simplicity of a self-weighting sample, because differences between weighted and unweighted estimates would be imperceptible or negligible.

Statistical Interpretation

Reliability of survey percentages.—Results of any sample are subject to sampling variation. The magnitude of the variation is measurable and is affected by the number of interviews and the level of the percentages expressing the results.

The possible sample variation that applies to percentage results reported from the Opinion Research Corporation sample is shown in the following table. The chances are 95 in 100 that a survey result does not vary, plus or minus, by more than the indicated number of percentage points from the result that would be obtained if interviews were conducted with all persons in the universe represented by the sample.

Size of sample on which survey result is based	Approximate sampling tolerances applicable to percentages at or near these levels				
	10 or 90	20 or 80	30 or 70	40 or 60	50
			Percent		
7,106	1	1	1	1	1
6,000	1	1	1	1	1
5,000	1	1	1	2	2
4,000	1	1	2	2	2
3,000	1	2	2	2	2
2,000	2	2	2	2	3
1,000	2	3	3	3	4
960	2	3	3	4	4
900	2	3	3	4	4
800	2	3	4	4	4
700	3	3	4	4	4
655	3	3	4	4	4
600	3	4	4	4	5
576	3	4	4	5	5
500	3	4	5	5	5
400	3	4	5	5	6
300	4	5	6	6	6
200	5	6	7	8	8
100	7	9	10	11	11

Sampling tolerances when comparing two samples.—Tolerances are also involved in comparing results from different parts of any one sample. A difference, in other words, must be of at least a certain size to be considered statistically significant. The following is a guide to the sampling tolerances applicable to such comparisons.

Size of samples being compared		Differences required for significance at or near these percentage levels:				
		10 or 90	20 or 80	30 or 70	40 or 60	50
N_1	N_2			*Percent*		
6,000	6,000	1	2	2	2	2
	5,000	1	2	2	2	2
	4,000	1	2	2	2	2
	3,000	1	2	2	2	2
	2,000	2	2	3	3	3
	1,000	2	3	3	4	4
	500	3	4	5	5	5
5,000	5,000	2	2	2	2	3
	4,000	2	2	2	3	3
	3,000	2	2	3	3	3
	2,500	2	3	3	3	3
	2,000	2	3	3	3	3
	1,000	3	3	4	4	4
	500	4	5	5	5	5
4,000	4,000	2	2	2	3	3
	3,000	2	2	3	3	3
	2,500	2	2	3	3	3
	2,000	2	2	3	3	3
	1,000	3	3	4	4	5
	500	4	5	5	5	5
3,000	3,000	2	3	3	3	3
	2,500	2	3	3	3	4
	2,000	2	3	3	3	4
	1,500	2	3	3	4	4
	1,000	3	4	4	4	5
	500	4	5	5	5	5
2,500	2,500	2	3	3	4	4
	2,000	2	3	4	4	4
	1,500	3	3	4	4	4
	1,000	3	4	4	5	5
	500	4	5	5	5	5
2,000	2,000	2	3	4	4	4
	1,500	2	3	4	4	4
	1,000	3	4	4	5	5
	500	4	5	5	5	5
	250	5	6	7	7	7
1,500	1,500	3	4	4	4	4
	1,000	3	4	5	5	5
	500	4	5	5	5	5
	250	5	6	7	7	7
1,000	1,000	3	4	5	5	5
	500	4	5	5	6	6
	250	5	6	7	7	8
500	500	5	5	6	7	7
	400	5	6	7	7	7
	300	5	6	7	8	8
	200	5	7	8	9	9
	100	7	10	11	12	12
400	400	5	6	7	7	8
	300	5	6	8	8	8
	200	5	7	9	9	10
	100	7	10	12	12	13
300	300	5	7	8	9	9
	200	6	8	9	10	10
	100	7	10	12	13	13
	50	10	14	16	16	17
200	200	6	9	10	11	11
	100	8	11	13	14	14
	50	11	14	16	17	17
100	100	9	13	15	16	16
	50	12	16	17	19	19
50	50	14	18	20	22	23

Definitions

Potential skier—Individual who has never skied, but who (in the opinion of a responsible household member) might try it in the next few years.

High potential—Nonskier under 26 years of age who has expressed an interest in skiing.

Moderate potential—Nonskier 26 to 34 years old who has expressed an interest in skiing.

Low potential—Nonskier 35 years of age or older who has expressed an interest in skiing.

Active skier—Individual who has skied since November 1977.

Downhill skier—Individual who has skied since November 1977 and who considers himself a downhill skier. Some members of this group also have skied cross-country.

Inactive skier—Individual who has skied in the past, but not since November 1977.

Temporary inactive—Skier who did not go skiing during the current season (1977–78) but expects to ski during the 1978–79 season.

Permanent inactive—Skier who indicates that he probably will never ski again, or if he does, will do so after the 1978–79 season.

Data summary—potential skiers

	Potential skier categories:		
	High	*Moderate*	*Low*
		Percent	
1. Do you have any interest at all in downhill skiing, cross-country skiing, both, or neither?			
Yes, downhill	48	52	19
Yes, cross-country	17	22	12
Yes, both	35	26	8
2. Have you done any of the following in the last year—looked at a ski magazine, read an article about skiing, or watched skiing on TV?			
Yes	95	94	90
3. Have any members of your family ever skied?			
Yes	41	38	42
4. Have any of your close friends ever skied?			
Yes	87	89	73
5. Why have you never taken up skiing?			
Lack of interest	5	6	7
Too old	0	1	1
No time available	37	38	36
Children restricting time	—[1]	5	1
Have less money/less income	9	8	4
Inconvenient	6	7	7
Have other sports interests	4	3	3
Marital status	—[1]	2	1
Have other non-sports interests	—[1]	1	1
Ski areas too crowded	0	1	—[1]
Skiing is too expensive	13	19	11
Physical/health reasons	2	3	4
Too dangerous	5	5	4
No place to ski	26	13	20
Dislike cold weather	1	2	1
No opportunity	5	5	4
No snow	2	2	1
6. Would you say that the cost of skiing *has* or *has not* kept you from trying it?			
Has	46	50	35
7. Do you feel that the developed ski facilities are adequate in your region?			
No, not adequate	25	25	30
8. What would you like to see added or improved?			
More/better downhill facilities	8	5	6
More/better cross-country	2	2	1
More/better snow making	2	2	2
More challenging slopes	1	1	1
Improved transportation to ski areas	2	2	1
More/better overnight facilities	1	1	1
Have no ski facilities in my region	7	7	10

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[1] Some, but less than 1 percent.

	Potential skier categories:		
	High	*Moderate*	*Low*
		Percent	
9. From what you have heard or read, is it your impression that the costs of skiing are too high, about right, or too low?			
Ski lift tickets (too high)	35	34	32
Ski equipment rentals (too high)	37	34	30
Ski equipment purchase (too high)	54	49	43
Ski lessons (too high)	18	15	16
Ski trip transportation (too high)	21	13	18
Ski area lodging (too high)	36	37	30
10. I'm going to mention a descriptive phrase or word which may or may not describe downhill skiing to you. Just tell me if you agree, possibly agree, or disagree with the statement.			
Interesting (agree)	90	91	86
An unfriendly, snobbish activity (agree)	3	4	6
Dangerous (agree)	39	41	46
A crowded activity (agree)	33	35	33
An expensive activity (agree)	54	57	58
An activity that requires skill (agree)	87	90	89
Hard work (agree)	53	52	58
A cold, uncomfortable activity (agree)	11	11	10
A socially enjoyable activity (agree)	94	90	90
Mainly attractive to a young crowd (agree)	54	44	47
Too time consuming (agree)	8	11	13
A good family activity (agree)	85	82	89
Readily accessible (agree)	49	49	53
An activity that requires good physical fitness (agree)	85	89	89
11. Which, if any, of the following items do you have in your household?			
Camping or recreational vehicle equipment	63	57	50
Tennis racquet or racquets	77	73	75
Golf clubs	31	31	35
Boat of any kind	24	20	27
Off-road vehicle, snowmobile	13	7	7
A home tennis court	4	3	4
A home swimming pool	14	12	12
A vacation home	10	7	11
A yacht	1	1	1
Skis	17	14	19
12. Are there any outdoor recreation activities that you have not participated in that you would like to participate in during the next 2 years? Which ones?			
Bicycling	2	6	2
Boating	4	5	3
Camping	3	8	5
Canoeing	2	4	1
Fishing	1	3	3
Golf	3	3	7
Hiking	4	5	3
Hunting	1	1	1
Horseback riding	4	5	2
Ice skating	4	3	2
Jogging	2	2	2
Sailing	3	3	1
Snow skiing—cross-country	28	29	24
Snow skiing—downhill	45	47	36
Swimming	4	5	5
Snowmobiling	3	4	2
Water skiing	17	13	11
Tennis	13	13	16
13. If you decide to take up skiing, in what state or states would you be			

	Potential skier categories:		
	High	Moderate	Low
		Percent	
most likely to ski? (summary)			
Northeast	24	22	24
North Central	20	21	16
South	13	13	11
West	44	47	43
14. What is your age?			
16–19	59	0	18
20–29	41	54	25
30–39	0	46	23
40 years or over	0	0	33
15. What is your marital status?			
Single	81	22	29
Married	17	67	61
16. Is your wife employed? (asked of married men)			
Yes	4	11	10
17. Are you employed outside the home? (asked of married women)			
Yes	6	23	22
18. How many children do you have? (asked of all but single people)			
None	8	10	10
One or two	11	51	35
Three or four	—[1]	16	19
Five or more	0	1	7
19. What is the occupation of the person in your household who is the main source of income for your household?			
Professional and technical	18	17	24
Managers, administrators	13	17	14
Sales workers	7	10	6
Clerical workers	6	8	7
Craftsmen	16	12	13
Operatives	9	6	7
Laborers, except farm	9	7	10
Farmers and farm managers	4	1	2
Farm laborers and farm foremen	—[1]	1	—[1]
Service workers, except private household	7	6	7
Private household workers	—[1]	0	—[1]
Homemakers	1	1	—[1]
Students	4	2	2
Retired	2	1	2
Unemployed	2	1	1
20. How many times have you moved in the last 5 years?			
None	43	23	49
1–2	34	53	34
3–4	15	16	12
5 or more	8	7	5
21. Which of these best describes the type of area you live in?			
A large metropolitan area—1 million or more	12	17	15
A small metropolitan area—50,000 to under 1 million	22	17	16
An urban area	11	9	8
A suburban area	25	33	29
A rural area	29	24	32
22. Please tell me which of the following income categories most closely describes the total family income in 1977, before taxes, including wages and all other income.			
Under $7,000	7	5	7
$ 7,000 to $10,000	13	7	9
$10,001 to $15,000	13	7	9
$15,001 to $20,000	15	18	18
$20,000 to $25,000	10	15	14
$25,001 to $35,000	9	12	10
$35,001 to $50,000	4	4	6
$50,001 to $75,000	3	1	2
Over $75,000	—[1]	2	0
23. In school, what is the highest grade you have completed?			
Elementary	—[1]	—[1]	0
Junior high	3	0	3
High School	67	39	53
College	27	50	35
Graduate School	2	11	9
24. Sex of respondent			
Male	46	41	37

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[1] Some, but less than 1 percent.

Data summary—active skiers

	Active skier categories:		
	Total downhill	*Cross-country only*	*Total active*
		Percent	
1. Do you downhill ski, cross-country ski, or do both kinds of skiing?			
Downhill only	79	0	69
Cross-country only	0	100	13
Both	21	0	18
2. How many years have you been skiing?			
Less than 1	9	8	—[2]
1	14	15	—[2]
2–3	21	45	—[2]
4–6	22	23	—[2]
7–9	8	3	—[2]
10–12	11	1	—[2]
13–15	5	3	—[2]
More than 15	10	1	—[2]
3. Which one of the following words best describes you as a skier?			
Novice	7	16	—[2]
Beginner	16	27	—[2]
Low intermediate	28	29	—[2]
High intermediate	31	25	—[2]
Advanced	14	3	—[2]
Expert	3	0	—[2]
4. In what states have you skied in the last 2 years? (summary)			
Northeast	37	41	38
North Central	22	36	24
South	6	3	5
West	49	30	47
5. Have you skied outside the U.S. in the last 2 years?			
No	93	99	94
6. Did you take a ski vacation of at least 4 nights away from home this past season?			
Yes	37	14	34
7. Including ski vacations, weekend trips, and day ski trips, how many days did you ski this past season?			
3 or less	19	25	20
4–6	17	18	17
7–10	20	16	20
11–14	8	10	8
15–21	15	12	14
22–28	6	6	6
29 or more	14	12	13
8. On the average, how many ski vacations of at least 4 nights each have you taken each year over the last 5 years?			
None	39	71	43
One	22	7	20
Two	13	12	13
Three	9	1	8
Four	4	1	4
Five	3	2	3
Over five	8	4	7
9. On the average, how many ski trips of less than 4 nights duration have you taken each year for the last 5 years?			
None	23	40	25
One	12	14	12
Two	11	7	11
Three	8	7	8
Four	6	8	6
5–8	13	7	12
9–12	7	5	7
13–20	7	8	7
21 and over	10	4	9
10. Including ski trips of all lengths, about how many total days have you spent skiing each year over the last 5 years?			
3 or less	13	13	13
4–6	11	22	13
7–10	14	14	14
11–14	6	7	7
15–21	18	11	17
22–28	7	3	6
29 or more	24	29	24
11. Do you ski about the same number of days each year, or has your			

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[2] No data.

	Active skier categories:		
	Total downhill	*Cross-country only*	*Total active*
	Percent		
participation in skiing been increasing or decreasing during the past few years?			
Same	28	24	28
Increasing	41	51	42
Decreasing	21	15	20
Varies	7	7	7
12. Do you expect to do more, or less, skiing in the next 2 years?			
More	75	85	76
Less	8	3	8
About the same	15	8	14
13. Why do you expect to do more skiing in the next 2 years? (asked of those who expect to ski more)			
More time available	15	23	16
Have more money/ increase in income	9	3	9
Rent or purchase a home in ski area	1	0	1
Health will improve	2	7	3
Friends will be taking up skiing	2	0	2
Expect to join a ski club	1	1	1
Changed marital status	—[1]	0	—[1]
Ski area more accessible	7	4	6
No children to take care of	3	1	2
Enjoy skiing	41	53	42
14. Why do you expect to do less skiing in the next 2 years? (asked of those who expect to ski less)			
Losing interest	1	0	1
Getting too old	—[1]	1	1
Less time available	3	1	2
Children restricting time	1	1	1
Have less money/ less income	1	0	1
Sold/will sell second home	0	0	0
Have other sports interests	—[1]	0	—[1]
Changed marital status	—[1]	0	—[1]
Have other nonsports interests	0	0	0
Ski areas too crowded	1	0	1
Skiing is too expensive	1	0	1
Physical/health reasons	—[1]	0	—[1]
Too dangerous	—[1]	0	—[1]
No place to ski	1	0	1
Dislike cold weather	—[1]	0	—[1]
15. From what you have experienced, is it your impression that the costs of skiing are too high, about right, or too low?			
Ski lift tickets (too high)	61	44	59
Ski equipment rentals (too high)	23	16	22
Ski equipment purchase (too high)	53	29	50
Ski lessons (too high)	17	10	16
Ski trip transportation (too high)	14	8	13
Ski area lodging (too high)	40	32	38
16. Would you say that the cost of skiing has, or has not, kept you from skiing as much as you would like to?			
Has	55	40	53
17. Do you usually ski alone or with others?			
With others	92	85	91
18. Would that be with one other person, your family, your friends, a ski club, or what? (asked of those who ski with others)			
One other person	11	18	12
Family	32	26	31
Friends	66	49	64

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[1] Some, but less than 1 percent.

	Active skier categories:		
	Total down-hill	Cross-country only	Total active
	Percent		
Ski club	6	4	6
19. Do you feel that the developed facilities are adequate in your region?			
No, not adequate	31	22	30
20. What would you like to see added or improved?			
More/better downhill facilities	16	5	14
More/better cross-country	4	12	5
More/better snow making	3	0	2
More challenging slopes	5	1	5
Improved transportation to ski areas	1	1	1
More/better overnight facilities	3	1	3
21. I'm going to mention a descriptive phrase or word which may or may not describe downhill skiing to you. Just tell me if you agree, possibly agree, or disagree with the statement.			
Interesting (agree)	91	66	88
An unfriendly, snobbish activity (agree)	3	15	5
Dangerous (agree)	25	46	28
A crowded activity (agree)	61	60	60
An expensive activity (agree)	73	66	72
An activity that requires skill (agree)	82	85	82
Hard work (agree)	49	44	48
A cold, uncomfortable activity (agree)	6	11	7
A socially enjoyable activity (agree)	96	81	94
Mainly attractive to a young crowd (agree)	40	37	40
Too time consuming (agree)	6	10	7
A good family activity (agree)	92	71	90
Readily accessible (agree)	58	59	58
An activity that requires good physical fitness (agree)	83	74	81
22. What is your age?			
16–19	20	13	19
20–29	46	45	46
30–39	42	26	44
40 years or over	12	16	12
23. What is your marital status?			
Single	53	47	52
Married	42	49	43
24. Is your wife employed? (asked of married men)			
Yes	9	10	9
25. Are you employed outside the home? (asked of married women)			
Yes	14	15	14
26. How many children do you have? (asked of all but single people)			
None	13	19	14
One or two	20	22	20
Three or four	11	11	11
Five or more	3	1	2
27. What is the occupation of the person in your household who is the main source of income for your household?			
Professional and technical	39	44	40
Managers, administrators	16	14	16
Sales workers	11	10	10
Clerical workers	5	0	4
Craftsmen	8	8	8
Operatives	4	6	4
Laborers, except farm	4	0	3
Farmers and farm managers	1	1	1
Farm laborers and farm foremen	1	1	1

	Active skier categories:		
	Total downhill	Cross-country only	Total active
	Percent		
Service workers, except private household	3	4	3
Private household workers	0	0	0
Homemakers	0	0	0
Students	3	4	3
Retired	2	4	2
Unemployed	1	1	1
28. How many times have you moved in the last 5 years?			
None	42	27	40
1–2	32	34	32
3–4	17	22	18
5 or more	9	15	10
29. Which of these best describes the type of area you live in?			
A large metropolitan area—1 million or more	17	15	17
A small metropolitan area—50,000 to under 1 million	20	16	19
An urban area	9	11	9
A suburban area	33	21	32
A rural area	21	37	23
30. Please tell me which of the following income categories most closely describes the total family income in 1977, before taxes, including wages and all other income.			
Under $7,000	5	7	5
$ 7,000 to $10,000	5	11	6
$10,001 to $15,000	13	26	15
$15,001 to $20,000	19	19	19
$20,001 to $25,000	16	18	15
$25,001 to $35,000	14	12	14
$35,001 to $50,000	7	3	7
$50,001 to $75,000	4	0	3
Over $75,000	3	1	2
31. In school, what is the highest grade you have completed?			
Elementary	0	0	0
Junior high	—[1]	0	—[1]
High School	34	26	33
College	47	49	47
Graduate school	18	25	19
32. Sex of respondent			
Male	52	47	51

Data summary—inactive skiers

	Inactive skier categories:		
	Temporary	Permanent	Total inactive
	Percent		
1. About how many years has it been since you last went snow skiing?			
Under 1 year	9	1	5
1 year	30	6	18
2 years	31	9	20
3 years	9	11	10
4 years	5	8	7
5 years	4	6	5
More than 5 years	11	58	34
2. Why haven't you skied since then?			
Lost interest	8	20	14
Too old	1	4	2
Less time available	39	24	31
Children restricting time	6	5	5
Have less money/less income	9	4	7
Sold/will sell second home	0	—[1]	—[1]
Have other sports interests	2	2	2
Marital status	2	2	2
Have other nonsports interests	2	2	2
Ski areas too crowded	1	1	1
Skiing is too expensive	10	9	9
Physical/health reasons	9	9	9
Too dangerous	2	6	4
No place to ski	15	21	18
Dislike cold weather	2	5	3

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[1] Some, but less than 1 percent.

	Inactive skier categories:		
	Temporary	Permanent	Total inactive
		Percent	
3. Are you a downhill skier, cross-country skier, or have you done both kinds of skiing?			
Downhill	80	81	80
Cross-country	6	6	6
Both	14	13	14
4. About how many years have you participated in skiing?			
(asked of those who ski downhill)			
Less than 1	13	18	15
1	12	10	11
2–3	28	27	27
4–6	22	19	21
7–9	6	2	4
10–12	6	6	6
13–15	3	2	2
More than 15	6	10	8
(asked of those who ski cross-country)			
Less than 1	2	2	2
1	4	2	3
2–3	8	7	7
4–6	3	2	2
7–9	—[1]	1	—[1]
10–12	1	2	2
13–15	—[1]	—[1]	—[1]
More than 15	1	2	2
5. When you were a more active skier, about how many total days per season (November to April) did you ski?			
3 or less days	28	29	28
4–10	32	24	28
11–21	21	21	21
22 or more	18	23	21
6. Which one of the following descriptions best describes you as a skier? (asked of those who ski downhill)			
Novice	18	29	24
Beginner	31	26	29
Low intermediate	28	26	27
High intermediate	13	10	11
Advanced	5	2	3
Expert	—[1]	1	—[1]
(asked of those who ski cross-country)			
Novice	5	5	5
Beginner	4	3	4
Low intermediate	7	5	6
High intermediate	3	3	3
Advanced	1	1	1
Expert	0	1	—[1]
7. When you went skiing, did you usually ski alone or with others?			
With others	94	92	93
8. Would that be with one other person, your family, your friends, a ski club, or what?			
One other person	10	9	9
Family	26	26	26
Friends	65	62	64
Ski club	11	7	9
9. When will you probably go skiing again? Would you say this season, next season, never, or when?			
This season	17	0	8
Next season	83	0	41
Never	0	56	28
10. Do you feel that the developed ski facilities are adequate in your region?			
No, not adequate	27	26	27
11. What would you like to see added or improved?			
More/better downhill facilities	11	8	9
More/better cross-country	2	2	2
More/better snow making	3	3	3
More challenging slopes	2	1	1
Improved transportation to ski areas	2	2	2
More/better overnight facilities	1	1	1
12. From what you have heard or experienced,			

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[1] Some, but less than 1 percent.

	Inactive skier categories:		
	Temporary	Permanent	Total inactive
		Percent	
is it your impression that the costs of skiing are too high, about right, or too low?			
Ski lift tickets (too high)	57	49	53
Ski equipment rentals (too high)	34	30	32
Ski equipment purchase (too high)	49	47	49
Ski lessons (too high)	18	14	16
Ski trip transportation (too high)	12	15	14
Ski area lodging (too high)	38	33	36
13. I'm going to mention a descriptive phrase or word which may or may not describe downhill skiing to you. Just tell me if you agree, possibly agree, or disagree with the statement.			
Interesting (agree)	89	84	86
An unfriendly, snobbish activity (agree)	4	5	4
Dangerous (agree)	34	37	36
A crowded activity (agree)	53	49	51
An expensive activity (agree)	70	67	68
An activity that requires skill (agree)	81	87	84
Hard work (agree)	46	54	50
A cold, uncomfortable activity	8	14	11
A socially enjoyable activity (agree)	92	85	88
Mainly attractive to a young crowd (agree)	40	43	41
Too time consuming (agree)	8	20	14
A good family activity (agree)	90	84	87
Readily accessible (agree)	54	46	50
An activity that requires good physical fitness (agree)	84	89	86
14. Would you say that the cost of skiing has, or has not, kept you from skiing?			
Has	45	32	39
15. What is your age?			
16–19	14	4	9
20–29	46	25	35
30–39	28	27	28
40 years or over	12	44	28
16. What is your marital status?			
Single	42	21	31
Married	50	70	60
17. Is your wife employed? (asked of married men)			
Yes	12	15	13
18. Are you employed outside the home? (asked of married women)			
Yes	13	14	13
19. How many children do you have? (asked of all but single people)			
None	12	12	12
One or two	31	38	35
Three or four	11	22	17
Five or more	2	6	4
20. What is the occupation of the person in your household who is the main source of income for your household?			
Professional and technical	34	33	34
Managers, administrators	14	16	15
Sales workers	11	7	9
Clerical workers	6	3	5
Craftsmen	7	12	9
Operatives	6	3	5
Laborers, except farm	6	5	5
Farmers and farm managers	2	3	3

	Inactive skier categories:		
	Temporary	Permanent	Total inactive
	Percent		
Farm laborers and farm foremen	0	1	—[1]
Service workers, except private household	6	2	4
Private household workers	1	0	—[1]
Homemakers	—[1]	—[1]	—[1]
Students	3	3	3
Retired	1	8	4
Unemployed	1	2	1
21. How many times have you moved in the last 5 years?			
None	31	44	37
1–2	42	38	40
3–4	20	12	16
5 or more	7	6	7
22. Which of these best describes the type of area you live in?			
A large metropolitan area—1 million or more	20	16	18
A small metropolitan area—50,000 to under 1 million	21	22	21
An urban area	5	6	5
A suburban area	29	27	28
A rural area	25	28	27
23. Please tell me which of the following income categories most closely describes the total family income in 1977, before taxes, including wages and all other income.			
Under $7,000	4	6	5
$ 7,000 to $10,000	12	8	10
$10,001 to $15,000	14	16	15
$15,001 to $20,000	17	16	17
$20,001 to $25,000	14	12	13
$25,001 to $35,000	15	14	14
$35,001 to $50,000	7	7	7
$50,001 to $75,000	3	3	3
Over $75,000	2	4	3
24. In school, what is the highest grade you have completed?			
Elementary	0	0	0
Junior high	1	1	1
High school	39	38	39
College	47	38	43
Graduate school	13	21	16
25. Sex of respondent			
Male	50	51	50

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[1] Some, but less than 1 percent.

INDEX TO TABLES

Table 1.—*Characteristics of national skier market sample of adults age 16 and older (1978 estimates of market size based on 7,106 households)*

Item	Potential skier	Active skier	Inactive skier	Nonskier	Total
Percent of households with one or more [1]	14.3	10.8	14.4	82.9	122.4
Number of households with one or more [1]	1,013	769	1,026	5,894	8,702
Number of completed interviews per market category [2]	960	576	655	0	2,191
Actual number of adults in skier market class	1,416	1,254	1,352	11,424	15,446
Mean number of adults per household in skier market class	1.4	1.6	1.3	[3]1.9	[3]2.1
Estimated percent of adults in each market class	9.2	8.1	8.7	74.0	100
Estimated size of market class (millions)	14.5	12.9	13.8	117.7	158.9

[1] Note: The percentages exceed 100 percent of the numbers of households total 8,702 because a single household can fall into more than one market category. In households containing potential skiers, 67 percent had one skier, 28 percent had two, and 5 percent had three or more; the average was 1.4. In active skiing households, 55 percent had one skier, 33 percent had two, and 12 percent had three or more; the average was 1.6. In inactive skiing households, 72 percent had one skier, 25 percent had two, and 3 percent had three or more; the average was 1.3.

[2] First priority for interview was any potential skier; second, inactive; third, active. Only one interview per household was required; therefore, percent completion is based on number of households (rather than number of adults) in each market category.

[3] Contains all adults whereas columns 1 through 3 contain only adults who ski, have skied, may ski, or have never skied.

Table 2.—*Estimated size of skier market segments, in millions of adults (age 16 and older), by region*

Market class	Northeast	North Central	South	West	United States
			Percent		
Potential skier					
High	1.3	2.2	2.7	1.2	7.3
Moderate	.6	.8	.8	.6	2.9
Low	.9	.9	1.6	.9	4.3
Inactive skier					
Temporary	1.9	1.9	1.3	1.9	6.9
Permanent	1.8	1.4	1.6	1.9	6.9
Active skier	4.3	3.1	1.9	3.6	12.9

Table 3.—*Perceptions of downhill skiing reported by high potential, active downhill, and temporarily inactive skiers, by region*

	High potential					Active downhill					Temporarily inactive				
Downhill skiing is:	North-east	North Central	South	West	United States	North-east	North Central	South	West	United States	North-east	North Central	South	West	United States
	Percent														
Interesting	89	90	91	90	90	87	92	91	92	91	90	90	87	90	89
Snobbish	2	5	4	1	3	6	2	0	2	3	4	2	6	3	4
Dangerous	47	29	40	48	39	32	21	27	21	25	37	35	33	32	34
Crowded	40	30	33	33	33	63	58	55	63	61	41	58	52	57	53
Expensive	59	50	56	53	54	78	65	59	80	73	69	63	73	73	70
Skill demanding	92	85	88	85	87	78	80	80	85	82	78	77	90	80	81
Hard work	51	55	55	49	53	45	46	52	52	49	45	45	58	41	46
Cold - uncomfortable	10	11	14	8	11	6	6	7	5	6	12	5	6	8	8
Socially enjoyable	99	92	94	93	94	95	97	97	96	96	95	88	93	93	92
Mainly for young	56	53	59	45	54	47	35	46	36	40	37	46	45	34	40
Too time consuming	6	8	6	12	8	3	7	6	8	6	9	7	10	8	8
Family activity	87	87	83	84	85	92	92	93	92	92	86	83	97	94	90
Readily accessible	67	48	42	49	49	66	55	37	62	58	60	51	40	62	54
Fitness demanding	85	84	86	87	85	81	79	83	87	83	77	78	93	87	84
Sample size (No.)	78	145	162	93	578	145	123	71	164	503	78	82	67	100	327

Table 4.—*Inadequacies of developed ski facilities as perceived by high potential, active downhill, and temporarily inactive skiers, by region*

Region and sample size	Facilities inadequate	Facilities not available	More/better downhill facilities [1]	More/better cross-country facilities	More/better support facilities [2]
	Percent				
			High potential		
Northeast (78)	12	1	6	0	0
North Central (145)	28	4	14	3	3
South (162)	37	14	13	1	7
West (93)	13	3	6	3	4
United States	25	7	12	2	4
			Active downhill		
Northeast (145)	25	1	24	1	2
North Central (126)	33	1	28	10	3
South (71)	45	8	25	1	6
West (164)	28	1	26	3	9
United States	31	2	27	4	5
			Temporarily inactive		
Northeast (78)	22	1	22	1	6
North Central (82)	34	4	23	4	1
South (67)	34	10	13	0	2
West (100)	21	2	19	1	2
United States	27	4	18	2	3

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[1] Includes perceived need for more/better snow making, more challenging slopes, and the need to eliminate crowding.

[2] Includes perceived need for more/better overnight facilities, improved transportation to ski areas, and ski instruction.

Table 5.—*Ski-related costs perceived as "too high" by high potential, active downhill, and temporarily inactive skiers, by region*

Region	Costs "too high" for:					
	Ski lift tickets	Equipment rental	Equipment purchase	Ski lessons	Ski trip transportation	Ski area management
	Percent					
			High potential			
Northeast	42	42	69	24	15	27
North Central	28	42	55	19	19	38
South	28	30	46	15	29	39
West	54	34	56	16	16	38
United States	35	37	54	18	21	36
			Active downhill			
Northeast	67	27	61	17	10	40
North Central	57	27	50	15	11	36
South	52	24	39	20	15	35
West	63	17	54	18	19	43
United States	61	23	53	17	14	40
			Temporarily inactive			
Northeast	63	46	49	26	13	28
North Central	49	32	48	12	12	35
South	45	43	49	19	12	40
West	66	19	52	15	13	46
United States	57	34	49	18	12	38

Table 6. —*Impact of costs on participation by skiers of major market classes*

Market class	Cost has deterred participation		
	Yes	No	Don't know
	Percent		
Active skier	55	44	1
Potential skier	46	47	7
Inactive skier	45	53	2

Table 7.—*Regional distribution of active and temporarily inactive skiers in the cross-country and downhill skier markets, in millions of participants*

Region	Cross-country only	Cross-country and downhill	Total cross-country	Downhill only	Downhill and cross-country	Total downhill	Total
Northeast				*Percent*			
Active	0.7	0.9	1.6	2.7	0.9	3.6	**4.3**
Temporarily inactive	0.1	0.3	0.4	1.5	0.3	1.8	**1.9**
North Central							
Active	0.5	0.7	0.4	1.8	0.7	2.5	**3.1**
Temporarily inactive	0.1	0.3	0.2	1.5	0.3	1.8	**1.9**
South							
Active	0.1	0.1	0.2	1.7	0.1	1.8	**1.9**
Temporarily inactive	0.1	0.1	0.2	1.1	0.1	1.2	**1.3**
West							
Active	0.3	0.6	0.9	2.7	0.6	3.3	**3.6**
Temporarily inactive	0.1	0.3	0.4	1.4	0.3	1.7	**1.8**
United States							
Active	1.6	2.3	3.9	8.9	2.3	11.2	**12.9**
Temporarily inactive	0.4	1.0	1.4	5.5	1.0	6.5	**6.9**

Table 8.—*Characteristics of active downhill skiers, by region*

Characteristic	Northeast	North Central	South	West	United States
Median number of years of participation	5.1	4.6	2.6	4.5	4.3
Median skill level [1]	low intermediate	low intermediate	low intermediate	high intermediate	low intermediate
Percent novice and beginner	22	30	31	17	23
Median annual number of ski vacations of 4 nights in last 5 years	1.2	1.2	1.6	1.6	1.4
Median annual number of ski vacations of less than 4 nights in last 5 years	3.3	2.5	1.8	4.6	3.3
Median number of days skied in 1977-78	13	9	6	9	9
Median number of days skied last 5 years	19.2	12.4	8.5	15.3	15.9

[1] Based on six levels: novice, beginner, low intermediate, high intermediate, advanced, and expert.

Table 9.—*Characteristics of inactive skiers, by region*

Characteristic	Northeast	North Central	South	West	United States
Percent who were downhill or downhill and cross-country skiers	95	95	93	94	94
Median number of years since last skied	1.3	1.4	1.6	1.3	1.3
Median skill level	beginner	beginner	beginner	low intermediate	beginner
Median number of days skied when active	8	7	6	10	8
Percent who expect to reenter market in 1979	14	27	7	18	17

Table 10.—*Frequency of ski vacations per year for active downhill skiers, by region*

Region	Ski vacation of at least 4 nigths		Ski vacation of less than 4 nights	
	Yes	No	Yes	No
	Percent			
Northeast	33	67	[1] 69	24
North Central	31	69	[1] 67	31
South	54	46	69	31
West	38	62	[1] 85	13
United States	37	63	[1] 74	23

[1] Does not equal 100 percent due to inclusion of "Don't recall" responses.

Table 11.—*Distribution of ski visits by active downhill skiers among regions, 1976–78*

Skiers	Who visited ski areas in the:			
	Northeast	North Central	South	West
	Percent			
Northeast	91	1	1	7
North Central	8	68	1	22
South	32	6	21	39
West	6	1	0	93

Table 12.—*Estimated regional distribution of projected visits by potential skiers in the next 2 years* [1]

Projected visits by potential skiers from:	To ski areas in the:			
	Northeast	North Central	South	West
	Percent			
Northeast	90	0	1	9
North Central	10	52	0	38
South	21	7	38	34
West	1	2	2	95

[1] Based on those States most frequently mentioned as likely to be visited.

Table 13.—*Frequency of skiing by active skiers, 1977–78, by age class*

Age class	Median number of days skied	Percent who took a ski vacation
16-19	9	34
20-29	8	38
30-39	10	31
40+	11	48

Table 14.—*Comparison of patterns of participation for downhill and cross-country skiers*

Characteristic	Cross-country	Downhill
Median number of years skied	2.6	5.3
Median skill level	low intermediate	low intermediate
Median number of days skied 1977-78	8	9
Percent who took a ski trip of more than 1 day, 1977-78	14	37
Median annual number of ski trips of less than 4 nights in last 5 years	2	3

Table 15.—*Skiers of major market classes as a proportion of regional and United States population*

Region	High potential	Active	Temporarily inactive
		Percent	
Northeast	3.6	11.8	5.2
North Central	5.1	7.3	4.4
South	5.2	3.7	2.5
West	4.1	12.4	6.5
United States	4.6	8.1	4.4

Table 16.—*Skiers of major market classes who have not made a household move in the last 5 years, by region*

Region	High potential	Active	Temporarily inactive
		Percent	
Northeast	50	49	39
North Central	49	34	32
South	40	51	31
West	32	36	23
United States	43	42	31

Table 17.—*Place of residence of skiers of major market classes, by region* [1]

Region	Metropolitan				
	Large Metro	Small Metro	Urban	Suburban	Rural
			Percent		
			Potential		
Northeast	14	18	8	27	33
North Central	7	19	9	26	39
South	9	21	15	27	27
West	21	32	12	19	15
United States	12	22	11	25	29
			Active		
Northeast	12	12	7	39	30
North Central	15	20	13	28	24
South	17	18	10	37	18
West	23	27	7	32	11
United States	17	20	9	33	21
			Inactive		
Northeast	13	14	1	37	35
North Central	27	15	8	26	24
South	17	25	5	28	25
West	24	28	5	25	18
United States	20	21	5	29	25

[1] Large metropolitan area: population of 1 million or greater; small metropolitan area: population of 50,000 to 999,999; urban area: city with population under 50,000.

Table 18.—*Sex ratios for skiers from major market classes, by region*

Region	Potential		Active		Inactive	
	Male	Female	Male	Female	Male	Female
			Percent			
Northeast	51	49	52	48	42	58
North Central	45	55	54	46	50	50
South	46	54	54	46	55	45
West	44	56	49	51	51	49
United States	46	54	52	48	50	50

Table 19.—*Marital status of skiers of major market classes*

Market class	Married	Single
	Percent	
Potential	17	81
Male	14	84
Female	20	78
Active	42	53
Male	38	58
Female	46	46
Inactive	50	42
Male	48	48
Female	51	37

Table 20.—*Median age of skiers of major market classes, by region*

Market class	Northeast	North Central	South	West
Potential	19.5	18.8	19.3	19.5
Active	27.1	26.0	26.1	25.1
Inactive	27.1	28.0	26.8	27.4

Table 21.—*Median income of skiers of major market classes, by region*

Market class	Northeast	North Central	South	West	United States
			Dollars		
Potential	14,800	14,700	16,400	14,400	15,000
Active	20,300	19,600	20,300	20,300	20,200
Inactive	17,200	19,100	22,600	16,700	19,200

Table 22.—*Occupation of skiers of major market classes*

Occupation	Potential		Active		Inactive	
	Percent	Ranking	Percent	Ranking	Percent	Ranking
Professional/ Technical worker	18	1	39	1	34	1
Manager/Administrator	13	3	16	2	14	2
Salesman	7	5	11	3	11	3
Craftsman	16	2	8	4	7	4
Clerical worker	6	6	5	5	6	5
Operative	9	4	4	6	6	5
Nonfarm laborer	9	4	4	6	6	5
Service worker	7	5	3	8	6	5
Retiree	2	—[1]	2	9	1	—[1]
Total[2]	87		92		91	

[1] No data.

[2] Homemakers, students, unemployed, and "other" totaled 7 percent for potentials, 6 percent for actives, and 5 percent for temporarily inactive skiers.

Table 23.—*Distribution of skier days, by region, and implied average daily use of developed ski facilities, 1977–78*

Region	Active adult skiers	Median participation	Activity generated	Activity received[1]	Activity per day[2]	Number of developed ski areas[3]	Average number of visits per day/area
	(million)	*(days)*	*(million days)*				
Northeast	3.6	12	43	45	454,000	288	1,580
North Central	2.5	8	20	15	148,000	201	740
South	1.8	5	9	3	25,000	27	930
West	3.3	9	30	39	323,000	200	1,620
United States	11.2	9	102	102	950,000	716	1,218

[1] Redistributed on the basis of Table 11.

[2] Based on average length of seasons: 100 days in Northeast and North Central, 120 days in West, 80 in South.

[3] Ski areas with at least one chairlift; the total would exceed 900 by including ropetow operations, but the overall capacity increase would be minimal.

Table 24.—*Skier status by age (based on population estimates)*

Age	Estimated number of individuals	No interest and never skied	Potential	Active	Inactive
		Percent			
16–17	8,403,000	47.3	28.8	17.5	6.4
18–19	8,221,000	54.0	23.8	15.4	6.8
20–24	19,261,000	56.3	16.4	16.3	11.0
25–29	17,336,000	60.7	13.7	12.9	12.7
30–39	27,311,000	71.1	8.2	8.5	12.2
40–49	22,586,000	82.3	4.9	3.9	8.9
50–59	22,903,000	88.4	1.9	3.4	6.3
60+	32,855,000	94.3	0.5	0.6	4.6

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