

801381



**School of Business and Economics
University of Minnesota, Duluth
Duluth, Minnesota 55812**

1 copy

LEGISLATIVE REFERENCE LIBRARY
STATE OF MINNESOTA

(2A)* DULUTH-SPIRIT MOUNTAIN SKIING
AND TOURISM STUDY

(5) DECEMBER, 1979 (7) 62 p.

(28) Volume II
DULUTH SKIING HOUSEHOLDS /

(29) by

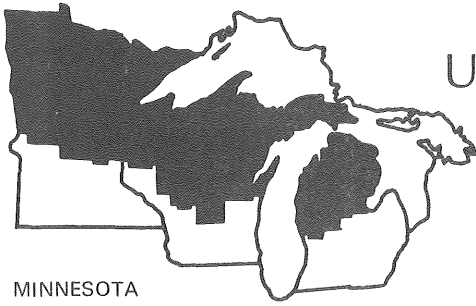
Richard O. Sielaff
Professor

Dept. of Business Administration,

Working Paper

LEGISLATIVE REFERENCE LIBRARY
STATE OF MINNESOTA

Bureau of Business and Economic Research



UPPER GREAT LAKES REGIONAL COMMISSION

601 FIRST FEDERAL SAVINGS BUILDING • DULUTH, MINNESOTA 55802 • 218/723-4949

MINNESOTA
ALBERT H. QUIE
GOVERNOR
BEN BOO
DIRECTOR

April 1, 1980

TO: Zona De Witt

FROM: Ernest S. Petersen

RE: Marketing Study for the Spirit Mountain Recreation
Area Authority

Enclosed please find one copy of the final report entitled
"Duluth-Spirit Mountain Skiing and Tourism Study", Volume II.
This report was completed through the University of Minnesota,
Duluth, contract total of \$6,731 and the contract period
was from 8/15/79 to 1/31/80.

Should you desire further information, please contact this
office.

ESP/cs

Enc.

SCHOOL OF BUSINESS AND ECONOMICS
UNIVERSITY OF MINNESOTA, DULUTH
BUREAU OF BUSINESS AND ECONOMIC RESEARCH
WORKING PAPER NUMBER 80-5

LEGISLATIVE REFERENCE LIBRARY
STATE OF MINNESOTA

Upper Great Lakes Regional Commission.

21*

DULUTH-SPIRIT MOUNTAIN SKIING
AND TOURISM STUDY

DECEMBER, 1979 9 62 p.

20 Volume II

DULUTH SKIING HOUSEHOLDS /

29 by

Richard O. Sielaff
Professor

Dept. of Business Administration,
School of Business and Economics
University of Minnesota, Duluth

5 (Consultant's report)

LEGISLATIVE REFERENCE LIBRARY
STATE OF MINNESOTA

Sponsor

This study was completed under a grant from the Upper Great Lakes Regional Commission to the University of Minnesota, Duluth. The grant was administered by the Bureau of Business and Economics Research, School of Business and Economics, University of Minnesota, Duluth.

recreation
tourist trade

TABLE OF CONTENTS

	Page
ANALYSIS	1
(1) Household Skiers	1
(2) Skiing Areas	1
(3) Spirit Mountain Rating	1
(4) Impact of Inflation, Gasoline Shortages, and Ski Resort Prices	2
(5) Household Income in Skiing Households	2
(6) Education in Skiing Households	2
(7) Occupations in Skiing Households	2
(8) Size of Skiing Households	2
(9) Age of Persons in Skiing Households	2
(10) Ages of Spirit Mountain Skiers	2
(11) One Day Only and Overnight Ski Trips	3
(12) Planning to Ski at Spirit Mountain During 1979-80 Season	3
(13) Ski Clubs	3
(14) Snow Conditions, Length of Runs, and Difficulty of Runs at Spirit Mountain	3
(15) Quality of Food, Quality of Food Service, and Kind of Food and Service	3
(16) Service, Comfort and Crowding at Spirit Mountain Chalet .	4
(17) Sources of Information About Spirit Mountain	4
(18) Price of a Tow or Lift Ticket	4
(19) Midweek Skiing Prices	4
(20) Lodging Prices	4
(21) Transportation to Ski Resorts	4

	Page
(22) Satisfaction With Duluth Hotel and Motel Accommodations	5
(23) Importance of Lodging on Spirit Mountain	5
(24) Principal Hotels or Motels and Restaurants Recommended	5
(25) Satisfaction With Food and Service at Duluth Restaurants	5
(26) Amount Spent on Last Ski Vacation	5
(27) Cross Country Skiing at Spirit Mountain	5
(28) Night Skiing at Spirit Mountain	5
(29) Preferred Food and Beverage at Spirit Mountain	5
(30) What Skiing Households Like Most About Spirit Mountain	6
(31) What Skiing Households Dislike Most About Spirit Mountain	6
(32) Favorite Ski Areas	6
(33) Conclusion	6

TABLES

1 DULUTH-MINNESOTA MARKET NUMBER OF SKIING HOUSEHOLDS AND SKIERS IN RANDOM SAMPLE OF DULUTH SKIING HOUSEHOLDS	7
2 RATING OF SERVICE AND FACILITIES AT SPIRIT MOUNTAIN AS COMPARED WITH REGIONAL SKI RESORTS IN MINNESOTA, WISCONSIN, AND MICHIGAN	8
3 IMPACT OF INFLATION, GASOLINE SHORTAGES, AND SKI RESORT PRICES IN REDUCING SKIING TRIPS DURING THE NEXT SKI SEASON	9
4 TOTAL HOUSEHOLD INCOME OF SKI HOUSEHOLDS IN DULUTH, MINNESOTA	10
5 NUMBER OF PERSONS IN HOUSEHOLD IN SKIING HOUSEHOLDS IN DULUTH, MINNESOTA	11
6 NUMBER OF PERSONS WHO SKI IN SKIING HOUSEHOLDS IN DULUTH, MINNESOTA	12

TABLES (Continued)

Page

7	TYPE OF SKIING PREFERRED BY SURVEY RESPONDENTS	13
8	PERCENTAGE OF SKIING HOUSEHOLDS WITH BOYS 19 YEARS OR YOUNGER AND PERCENTAGE OF SKIING HOUSEHOLDS WITH BOY SKIERS 19 OR YOUNGER	14
9	PERCENTAGE OF SKIING HOUSEHOLDS WITH GIRLS 19 YEARS OR YOUNGER AND PERCENTAGE OF SKIING HOUSEHOLDS WITH GIRL SKIERS 19 OR YOUNGER	15
10	PERCENTAGE OF SKIING HOUSEHOLDS WITH MEN 20 TO 39 YEARS AND PERCENTAGE OF SKIING HOUSEHOLDS WITH MEN SKIERS 20 TO 39 YEARS	16
11	PERCENTAGE OF SKIING HOUSEHOLDS WITH WOMEN 20 TO 39 YEARS AND PERCENTAGE OF SKIING HOUSEHOLDS WITH WOMEN SKIERS 20 TO 39 YEARS	17
12	PERCENTAGE OF SKIING HOUSEHOLDS WITH MEN 40 YEARS AND OVER AND PERCENTAGE OF SKIING HOUSEHOLDS WITH MEN SKIERS 40 YEARS AND OVER	18
13	PERCENTAGE OF SKIING HOUSEHOLDS WITH WOMEN 40 YEARS AND OVER AND PERCENTAGE OF SKIING HOUSEHOLDS WITH WOMEN SKIERS 40 YEARS AND OVER	19
14	HOW MANY TIMES DID YOUR HOUSEHOLD GO FOR ONLY ONE DAY TO SKIING AREAS OUTSIDE THE DULUTH, MINNESOTA AREA DURING THE LAST SKI SEASON?	20
15	HOW MANY TIMES DID YOUR HOUSEHOLD GO FOR OVERNIGHT SKIING TRIPS TO SKIING AREAS OUTSIDE THE DULUTH, MINNESOTA AREA DURING THE LAST SEASON?	21
16	HOW MANY OF THE SKIERS IN EACH AGE GROUP IN YOUR HOUSEHOLD WENT SKIING AT SPIRIT MOUNTAIN IN DULUTH IN THE LAST SEASON?	22
17	HOW MANY PERSONS IN YOUR HOUSEHOLD ARE PLANNING TO SKI AT SPIRIT MOUNTAIN IN DULUTH DURING THE NEXT SEASON?	23
18	HOW MANY TIMES WILL YOUR HOUSEHOLD GO TO SPIRIT MOUNTAIN IN THE NEXT SKI SEASON?	24
19	HOW MANY PERSONS IN YOUR HOUSEHOLD WENT SKIING AT EACH OF THESE SKI AREAS IN THE LAST SKI SEASON?	25

TABLES (Continued)	Page
20 DID ANYONE IN YOUR HOUSEHOLD BELONG TO A SKI CLUB IN THE LAST SKI SEASON?	26
21 DID THAT SKI CLUB VISIT ANY OF THESE AREAS IN THE LAST SKI SEASON?	27
22 WHAT HAS YOUR HOUSEHOLD KNOWN OR HEARD ABOUT SNOW CONDITIONS, LENGTH OF RUNS, AND DEGREE OF DIFFICULTY OF RUNS AT SPIRIT MOUNTAIN?	28
23 WHAT HAS YOUR HOUSEHOLD KNOWN OR HEARD ABOUT QUALITY OF FOOD, QUALITY OF FOOD SERVICE, AND KIND OF FOOD AND SERVICE AFTER SKIING AT SPIRIT MOUNTAIN?	29
24 WHAT HAS YOUR HOUSEHOLD KNOW OR HEARD ABOUT SERVICE, COMFORT, AND CROWDING AT THE SPIRIT MOUNTAIN CHALET?	30
25 WHERE DID YOUR HOUSEHOLD FIRST HEAR ABOUT SPIRIT MOUNTAIN IN DULUTH?	31
26 HOW IMPORTANT IS THE PRICE OF A TOW OR LIFT TICKET IN DETERMINING WHERE YOU WILL SKI?	32
27 WOULD YOU CHANGE YOUR SKI TRIP FROM THE WEEKEND TO MIDWEEK IF THE PRICE OF THE LIFT TICKET WERE LOWER AT MIDWEEK?	33
28 HOW IMPORTANT IS THE PRICE OF YOUR LODGING IN THE COST OF YOUR SKI VACATION?	34
29 DURING THE LAST SKI SEASON HOW MANY OF YOUR SKI TRIPS WERE BY THESE MEANS OF TRANSPORTATION?	35
30 HOW SATISFIED WERE YOU OR YOUR FRIENDS WITH YOUR HOTEL OR MOTEL ACCOMMODATIONS IN DULUTH ON YOUR LAST VISIT?	36
31 HOW IMPORTANT IS IT TO VISITORS TO HAVE LODGING ON SPIRIT MOUNTAIN?	37
32 PRINCIPAL HOTELS OR MOTELS YOU WOULD RECOMMEND THE NEXT TIME YOU OR A FRIEND VISITS DULUTH	38
33 PRINCIPAL RESTAURANTS YOU WOULD RECOMMEND THE NEXT TIME YOU OR A FRIEND VISITS DULUTH	39
34 HOW SATISFIED WERE YOU WITH THE FOOD AND SERVICE ON YOUR LAST VISIT TO A DULUTH RESTAURANT?	40

TABLES (Continued)

Page

35	PLEASE ESTIMATE THE TOTAL AMOUNT WHICH YOUR HOUSEHOLD SPENT ON YOUR LAST SKI VACATION IN NORTHERN MINNESOTA, WISCONSIN, OR MICHIGAN (OUTSIDE DULUTH)	41
36	HOW MANY MEMBERS OF YOUR HOUSEHOLD WERE ON THAT SKI VACATION?	42
37	DO YOU THINK THAT THE AVAILABILITY OF CROSS COUNTRY SKIING AT SPIRIT MOUNTAIN:	43
38	DO YOU THINK THAT THE AVAILABILITY OF NIGHT SKIING AT SPIRIT MOUNTAIN:	44
39	WHAT TYPES OF FOOD AND BEVERAGE WOULD YOU LIKE AT SPIRIT MOUNTAIN?	45
40	WHAT DO YOU LIKE MOST ABOUT SPIRIT MOUNTAIN?	46
41	WHAT DO YOU DISLIKE MOST ABOUT SPIRIT MOUNTAIN?	47
42	WHAT ARE YOUR THREE FAVORITE SKI AREAS IN THE UPPER MIDWEST OUTSIDE OF THE TWIN CITIES?	48
43	WHY DID YOU SELECT YOUR FAVORITE SKI AREA?	49
44	OCCUPATION OF PRINCIPAL MALE AND FEMALE IN HOUSEHOLD .	50
45	EDUCATION OF PRINCIPAL MALE AND FEMALE IN HOUSEHOLD . .	51
46	AGE GROUP OF RESPONDENTS	52

APPENDIX

Questionnaire - DULUTH-SPIRIT MOUNTAIN TOURISM STUDY . . .	53- 60
Methodology	61

ANALYSIS

This is the second of two reports on the attitudes of skiing households toward skiing at Spirit Mountain and other ski areas. The first report involves skiing households in Minneapolis-St. Paul, and the second report involves skiing households in Duluth Minnesota. Each report is self-contained, and no statistical comparisons are made between the two areas. It is expected that such comparisons will be made in subsequent analyses.

The first report on Minneapolis-St. Paul was based on a random sample of 204 skiing households, and the second report on Duluth was based on a random sample of 206 skiing households.

(1) Household Skiers

There were 206 skiing households in the sample with 425 skiers or 2.1 skiers per skiing household. This was slightly less per household than in Minneapolis-St. Paul (where the average was 2.5).

(2) Skiing Areas and Skiers

A total of 340 skiers (or 80.0%) had skied at Spirit Mountain during the 1978-1979 skiing season. Interestingly, a similar percentage (82.7%) of Minneapolis-St. Paul skiing households skied at Minneapolis-St. Paul ski resorts during the 1978-1979 skiing season. Table 1 provides detailed information.

(3) Spirit Mountain Rating Compared With Other Regional Resorts

Table 2 shows the Spirit Mountain rating compared with regional resorts on three subjects: ski runs, food and food service, and chalet. In general Spirit Mountain was rated the same or better by more than half of the households while about one-fourth did not answer.

(4) Impact of Inflation, Gasoline Shortages, and Ski Resort Prices

Inflation and ski resort prices were matters of concern for more than half of the skiing households, and prospective gasoline shortages were also important to somewhat less than half of the skiing households. Table 3 provides detailed information.

(5) Household Income In Skiing Households

About half of the skiing households had total incomes from \$20,000 to \$40,000, and about one-third had total incomes under \$20,000. Table 4 provides the information.

(6) Education In Skiing Households

A total of 66.1% of the principal males and 52.9% of the principal females in skiing households in Duluth had had some college education or a college degree. Table 45 provides details.

(7) Occupations In Skiing Households

A total of 38.4% of the principal males were in professional or managerial positions, and 31.1% of the principal females were homemakers. See Table 44.

(8) Size of Skiing Households

There were 791 persons in the 206 skiing households which was 3.8 persons per household. See Table 5.

(9) Age of Persons In Skiing Households

Tables 8 through 13 provide information on the ages of persons in skiing households.

(10) Ages of Spirit Mountain Skiers

Table 16 provides detailed information on Spirit Mountain skiers and their ages.

(11) One Day Only and Overnight Ski Trips Outside the Duluth Area

A total of 49% of the skiing households went for one-day skiing trips outside the Duluth area (Table 14). However, only 32% of the households went on overnight skiing trips outside the Duluth area (Table 15).

(12) Planning to Ski at Spirit Mountain - 1979-1980 Season

A total of 85.4% of the households planned to ski at Spirit Mountain in 1979-1980 (Table 17), and 31.5 % of the households planned to ski at Spirit Mountain 9 or more times (Table 18).

(13) Ski Clubs

Ski clubs were relatively unimportant with only 3.9% of the skiing households participating in ski clubs (Tables 20 and 21).

(14) Snow Conditions, Length of Runs, and Difficulty of Runs at Spirit Mountain

Very satisfactory or fairly satisfactory were the predominant ratings by Duluth skiing households on snow conditions (85.0%), length of runs (58.7%), and difficulty of runs (68.9%).

There were, however, 23.8% of the households which noted the length of runs as barely satisfactory or unsatisfactory. A total of 13.1% thought the difficulty of runs was barely satisfactory or unsatisfactory (Table 22).

(15) Quality of Food, Quality of Food Service, and Kind of Food and Service at Spirit Mountain

A total of 75.7% thought the food quality was very satisfactory or fairly satisfactory, and a total of 73.8% thought food service was very satisfactory or fairly satisfactory.

A total of 90.8% of skiing households had no opinion on the formality of food service (Table 23).

(16) Service, Comfort, and Crowding at Spirit Mountain Chalet

Chalet service received a very or fairly satisfactory rating by 76.2% of the skiing households.

Chalet comfort had a very or fairly satisfactory rating by 72.8% of the skiing households.

Chalet crowding had a very or fairly satisfactory rating by 32.5% of the skiing households, but 52.0% gave Chalet crowding a barely satisfactory or unsatisfactory rating (Table 24).

(17) Sources of Information About Spirit Mountain

The sources of information were in order: (1) advertising media 76.2%, (2) friends 17.5%, (3) news stories 5.3% (Table 25).

(18) Price of a Tow or Lift Ticket

The ratings on the price of a tow or lift ticket were: very important 30.1%, somewhat important 30.6%, rather unimportant 14.6%, and not at all important 19.4% (Table 26).

(19) Midweek Skiing Prices

A total of 69.9% of the skiing households said they would change to midweek skiing if the price of the midweek lift ticket were lower (Table 27).

(20) Lodging Prices

The ratings on the importance of ski lodging prices were: very important 45.1%, somewhat important 20.9%, rather unimportant 7.3%, not at all important 12.6% (Table 28).

(21) Transportation to Ski Resorts

A total of 95.1% of ski trips were made by automobile, 8.8% were by bus, .5% by railroad, and 3.9% by air transportation (Table 29).

(22) Satisfaction With Duluth Hotel and Motel Accommodations

A total of 43.6% of the skiing households rated hotels very or somewhat satisfactory, but 48.1% expressed no opinion (Table 30).

(23) Importance of Lodging on Spirit Mountain

While Duluth skiing households were not likely to use housing at Spirit Mountain, they did express opinions on the subject: very important 41.7%, somewhat important 20.4%, not important 24.3%, no answer 13.6% (Table 31).

(24) Principal Hotels or Motels and Restaurants Recommended

Tables 32 and 33 provide detailed information on these subjects.

(25) Satisfaction With Food and Service at Duluth Restaurants

Table 34 indicates a high level of satisfaction with food and service at Duluth restaurants.

(26) Amount Spent on Last Ski Vacation

Table 35 provides information on the amount spent on the last ski vacation. Less than \$200 is the predominant amount.

(27) Cross Country Skiing at Spirit Mountain

The percentages on this subject were almost identical with those in Minneapolis. A total of 39.3% said cross country skiing encouraged more skiing there, and 52.4% said it had no effect on skiing plans (Table 37).

(28) Night Skiing at Spirit Mountain

Table 38 indicates that 70.4% of the skiing households believed night skiing encouraged more skiing there.

(29) Preferred Food and Beverage at Spirit Mountain

A total of 31.6% preferred quick standup service, and 38.8% preferred inexpensive table service. A minority preferred full

service with or without entertainment (Table 39).

(30) What Skiing Households Like Most About Spirit Mountain

The most important factors or reasons were (1) short driving distance 40.8% (2) scenery 28.6%, and (3) attractive ski runs 11.7% (Table 40).

(31) What Skiing Households Dislike Most About Spirit Mountain

The most important factors or reasons were: (1) crowding 21.8%, (2) inadequate parking 8.7%, (3) inadequate ski runs 6.8%, and (4) waiting for the lift 3.4% (Table 41).

(32) Favorite Ski Areas

Table 42 shows the favorite ski resorts. Lutzen, Spirit Mountain, Indian Head, Telemark, Sugar Hills, and Powder Horn were the most popular.

It should be noted however that the number of out-of-city ski trips was somewhat limited (Table 42).

Attractive ski runs, reasonable driving distance, and scenery were important reasons for selecting a favorite ski resort. (Table 43).

(33) Conclusion

Spirit Mountain has a generally favorable reputation among Duluth skiing households. This conclusion is similar to that found among Minneapolis-St. Paul skiing households.

However, some directions are indicated for Spirit Mountain including improvements in ski runs and ski lifts, reduction of crowding, improvement in parking, and maintenance of the attractive features of Spirit Mountain.

TABLE 1

DULUTH, MINNESOTA MARKET NUMBER OF
SKIING HOUSEHOLDS AND SKIERS
IN RANDOM SAMPLE OF
DULUTH SKIING
HOUSEHOLDS

December, 1979

	<u>Number</u>	<u>Percentage of Duluth Skiers</u>
Total Skiing Households	206	100.0%
Total Skiers in Skiing Households	425	100.0%
Total Who Skied at Spirit Mountain	340	80.0%
Total Who Skied at Minneapolis- St. Paul Resorts	41	9.6%
Total Who Skied at Northern Minnesota Resorts Other Than Spirit Mountain	132	31.0%
Total Who Skied at Northern Wisconsin and Michigan Resorts	93	21.9%
Total Who Skied at Colorado or Western Resorts	50	11.7%

TABLE 2

RATING OF SERVICE AND FACILITIES AT SPIRIT MOUNTAIN
AS COMPARED WITH OTHER REGIONAL SKI
RESORTS IN MINNESOTA, WISCONSIN,
AND MICHIGAN

(Rating Made by a Random Sample of Duluth, Minnesota Skiing Households)

December, 1979

<u>Facility</u>	<u>Same</u>	<u>Better</u>	<u>Worse</u>	<u>No Answer or Don't Know</u>	<u>Total</u>
Ski Runs	45.6 (94)	16.5 (34)	14.6 (30)	23.3 (48)	100.0 (206)
Food and Food Service	46.6 (96)	13.1 (27)	11.2 (23)	29.1 (60)	100.0 (206)
Chalet	41.7 (86)	28.2 (58)	10.7 (22)	19.4 (40)	100.0 (206)

Questions Asked:

39. Has your household known or heard that at Spirit Mountain in Duluth the ski runs are about the same, better, or worse than those in Northern Wisconsin, Michigan, and Minnesota?
43. Has your household known or heard that the food and food service at Spirit Mountain is about the same, better, or worse than the food at other ski resorts in Northern Wisconsin, Michigan, and Minnesota?
47. Has your household known or heard that the chalet at Spirit Mountain in Duluth is about as attractive as, or more or less attractive than the chalets at other ski resorts in Northern Wisconsin, Michigan, and Minnesota?

TABLE 3

IMPACT OF INFLATION, GASOLINE SHORTAGES, AND SKI RESORT PRICES
IN REDUCING SKIING TRIPS DURING THE NEXT SKI SEASON
(Rating Made By A Random Sample of Duluth, Minnesota Skiing Households)

December, 1979

	<u>Very Likely</u>	<u>Don't Know</u>	<u>Unlikely</u>	<u>No Answer</u>	<u>Total</u>
Inflation	53.4 (110)	5.8 (12)	39.3 (81)	1.5 (3)	100.0 (206)
Gasoline Shortage	41.7 (86)	1.9 (4)	55.3 (114)	1.1 (2)	100.0 (206)
Ski Resort Prices	62.6 (129)	3.4 (7)	31.6 (65)	2.4 (5)	100.0 (206)

Question Asked:

How likely would the following be to reduce the number of your household skiing trips during the next ski season?

52. Inflation resulting in reduced family income?

53. Gasoline shortages?

54. Increased prices at ski resorts?

TABLE 4

TOTAL HOUSEHOLD INCOME
OF SKI HOUSEHOLDS IN
DULUTH, MINNESOTA

December, 1979

<u>Amount</u>	<u>Number of Skiing Households in Sample</u>	<u>Percentage of Skiing House- holds in Sample</u>
Under \$20,000	73	35.4
\$20,000 to \$40,000	103	50.0
\$40,000 or More	9	4.4
No Answer	<u>21</u>	<u>10.2</u>
TOTALS	<u>206</u>	<u>100.0</u>

TABLE 5
NUMBER OF PERSONS IN HOUSEHOLD
IN SKIING HOUSEHOLDS IN
DULUTH, MINNESOTA

December, 1979

<u>Number in Household</u>	<u>Number of Skiing Households In Sample</u>	<u>Percentage of Skiing Households in Sample</u>
1	16	7.8
2	49	23.8
3	49	23.8
4	52	25.2
5	24	11.7
6	11	5.3
7	4	1.9
8	1	.5
9 or more	<u>0</u>	<u>0</u>
TOTALS	<u>206</u>	<u>100.0</u>

TABLE 6

NUMBER OF PERSONS WHO SKI
IN SKIING HOUSEHOLDS
IN DULUTH, MINNESOTA

December, 1979

<u>Number of Persons Who Ski</u>	<u>Number of Skiing Households In Sample</u>	<u>Percentage of Skiing Households in Sample</u>
1	83	40.3
2	68	33.0
3	29	14.1
4	13	6.3
5	11	5.3
6	<u>2</u>	<u>1.0</u>
TOTALS	<u>206</u>	<u>100.0</u>

TABLE 7

TYPE OF SKIING PREFERRED
BY SURVEY RESPONDENTS

December, 1979

<u>Type of Skiing Preferred</u>	<u>Number of Skiing Households In Sample</u>	<u>Percentage of Skiing Households in Sample</u>
Downhill	94	45.6
Cross Country	58	28.2
No Answer	<u>54</u>	<u>26.2</u>
TOTALS	<u>206</u>	<u>100.0</u>

TABLE 8

PERCENTAGE AND NUMBER OF SKIING HOUSEHOLDS WITH
BOYS 19 YEARS OR YOUNGER AND PERCENTAGE
AND NUMBER OF SKIING HOUSEHOLDS WITH
BOY SKIERS 19 OR YOUNGER
DULUTH, MINNESOTA

December, 1979

<u>Number of Boys 19 Years or Younger</u>	<u>Percentage and Number of Skiing Households With Boys 19 or Younger</u>	<u>Percentage and Number of Skiing Households With Boy Skiers 19 or Younger</u>
0	59.6 (123)	68.0 (140)
1	24.8 (51)	23.7 (49)
2	11.2 (23)	6.8 (14)
3	2.9 (6)	1.0 (2)
4	1.0 (2)	.5 (1)
No Answer	.5 (1)	--
	<hr/>	<hr/>
TOTALS	100.0 (206)	100.0 (206)
	<hr/> <hr/>	<hr/> <hr/>

TABLE 9

PERCENTAGE AND NUMBER OF SKIING HOUSEHOLDS WITH
 GIRLS 19 YEARS OR YOUNGER AND PERCENTAGE
 AND NUMBER OF SKIING HOUSEHOLDS WITH
 GIRL SKIERS 19 OR YOUNGER
 DULUTH, MINNESOTA

December, 1979

<u>Number of Girls 19 or Younger</u>	<u>Percentage and Number of Skiing Households With Girls 19 or Younger</u>	<u>Percentage and Number of Skiing Households With Girl Skiers 19 or Younger</u>
0	64.0 (132)	78.1 (161)
1	24.3 (50)	17.5 (36)
2	9.7 (20)	4.4 (9)
3	1.5 (3)	-- --
No Answer	.5 (1)	-- --
	<hr/>	<hr/>
TOTALS*	100.0 (206)	100.0 (206)

TABLE 10

PERCENTAGE AND NUMBER OF SKIING HOUSEHOLDS WITH MEN
20 TO 39 YEARS AND PERCENTAGE AND NUMBER OF
SKIING HOUSEHOLDS WITH MEN SKIERS
20 TO 39 YEARS
DULUTH, MINNESOTA

December, 1979

<u>Number of Men 20 to 39 Years</u>	<u>Percentage and Number of Skiing Households With Men 20 to 39 Years</u>	<u>Percentage of Skiing Households With Men Skiers 20 to 39 Years</u>
0	38.8 (80)	47.6 (98)
1	53.4 (110)	48.5 (100)
2	6.8 (14)	2.9 (6)
3	.5 (1)	.5 (1)
4	-- --	-- --
5	-- . --	-- --
6	.5 (1)	.5 (1)
	<hr/>	<hr/>
TOTALS	100.0 (206)	100.0 (206)
	<hr/> <hr/>	<hr/> <hr/>

TABLE 11

PERCENTAGE AND NUMBER OF SKIING HOUSEHOLDS WITH WOMEN
 20 TO 39 YEARS AND PERCENTAGE AND NUMBER OF
 SKIING HOUSEHOLDS WITH WOMEN SKIERS
 20 TO 39 YEARS
 DULUTH, MINNESOTA

December, 1979

<u>Number of Women 20 to 39 Years</u>	<u>Percentage of Skiing Households With Women 20 to 39 Years</u>	<u>Percentage of Skiing Households With Women Skiers 20 to 39 Years</u>
0	35.4 (73)	49.0 (101)
1	58.3 (120)	47.6 (98)
2	3.4 (7)	2.4 (5)
3	1.9 (4)	.5 (1)
4	1.0 (2)	.5 (1)
	<hr/>	<hr/>
TOTALS	100.0 (206)	100.0 (206)
	<hr/> <hr/>	<hr/> <hr/>

TABLE 12

PERCENTAGE AND NUMBER OF SKIING HOUSEHOLDS WITH MEN
 40 YEARS AND OVER AND PERCENTAGE AND NUMBER OF
 SKIING HOUSEHOLDS WITH MEN SKIERS
 40 YEARS AND OVER
 DULUTH, MINNESOTA

December, 1979

<u>Number of Men 40 Years and Over</u>	<u>Percentage and Number of Skiing Households With Men 40 Years and Over</u>	<u>Percentage and Number of Skiing Households With Men Skiers 40 Years and Over</u>
0	58.7 (121)	85.4 (176)
1	40.8 (84)	14.1 (29)
No Answer	.5 (1)	.5 (1)
	<hr/>	<hr/>
TOTALS	100.0 (206)	100.0 (206)
	<hr/> <hr/>	<hr/> <hr/>

TABLE 13

PERCENTAGE AND NUMBER OF SKIING HOUSEHOLDS WITH WOMEN
40 YEARS AND OVER AND PERCENTAGE AND NUMBER OF
SKIING HOUSEHOLDS WITH WOMEN SKIERS
40 YEARS AND OVER
DULUTH, MINNESOTA

December, 1979

<u>Number of Women 40 Years and Over</u>	<u>Percentage and Number of Skiing Households With Women 40 Years and Over</u>	<u>Percentage and Number of Skiing Households With Women Skiers 40 Years and Over</u>
0	62.1 (128)	88.8 (183)
1	35.9 (74)	10.7 (22)
2	1.5 (3)	-- --
No Answer	.5 (1)	.5 (1)
	<hr/>	<hr/>
TOTALS	100.0 (206) <hr/> <hr/>	100.0 (206) <hr/> <hr/>

TABLE 14

HOW MANY TIMES DID YOUR HOUSEHOLD GO FOR
 ONLY ONE DAY TO SKIING AREAS
 OUTSIDE THE DULUTH AREA
 THE LAST SKI SEASON?
 DULUTH, MINNESOTA

December, 1979

<u>Number of Times</u>	<u>Percentage and Number of Skiing Households Which Skied One Day Only</u>	
0	51.0	(105)
1	15.5	(32)
2	9.7	(20)
3	6.8	(14)
4	3.4	(7)
5	3.9	(8)
6	2.4	(5)
7	.5	(1)
8	.5	(1)
9 or More	6.3	(13)
	<hr/>	<hr/>
TOTALS	100.0	(206)
	<hr/>	<hr/>

TABLE 15

HOW MANY TIMES DID YOUR HOUSEHOLD GO FOR OVERNIGHT
SKIING TRIPS TO SKIING AREAS OUTSIDE THE
DULUTH AREA DURING THE LAST SEASON?
DULUTH, MINNESOTA

December, 1979

<u>Number of Times</u>	<u>Percentage and Number of Skiing Households Which Skied Overnight</u>	
0	68.0	(140)
1	15.5	(32)
2	8.7	(18)
3	2.9	(6)
4	2.4	(5)
5	.5	(1)
6	1.5	(3)
7	--	--
8	--	--
9 or more	.5	(1)
	<hr/>	<hr/>
TOTALS	100.0	(206)
	<hr/>	<hr/>

TABLE 16

HOW MANY SKIERS IN EACH AGE GROUP IN YOUR HOUSEHOLD
WENT SKIING AT SPIRIT MOUNTAIN IN DULUTH
IN THE LAST SEASON?
DULUTH, MINNESOTA

December, 1979

Age Groups	Number of Households										Total
	0	1	2	3	4	5	6	7	8	9	
Boys 19 years or younger											
Percent	74.7	17.0	6.3	1.5	.5						100.0
Number	154	35	13	3	1						206
Girls 19 years or younger											
Percent	83.5	12.1	3.9	--	.5						100.0
Number	172	25	8		1						206
Men 20 to 39 Years											
Percent	59.2	36.4	2.9	.5	.5		.5				100.0
Number	121	75	6	1	1		1				206
Women 20 to 39 Years											
Percent	63.5	33.0	1.5	.5	.5			.5	.5		100.0
Number	131	68	3	1	1			1	1		206
Men 40 and Over											
Percent	91.7	8.3									100.0
Number	189	17									206
Women 40 and Over											
Percent	93.7	5.8		.5							100.0
Number	193	12		1							206

Summary: There were 340 persons who had skied one or more times at Spirit Mountain during the last season (1978-1979). The total number of skiers in the 206 households was 425.

TABLE 17

HOW MANY PERSONS IN YOUR HOUSEHOLD ARE
 PLANNING TO SKI AT SPIRIT MOUNTAIN
 IN DULUTH DURING THE NEXT SEASON?
 DULUTH, MINNESOTA

December, 1979

<u>Number of Persons Planning to Ski at Spirit Mountain Next Season (1979-1980)</u>	<u>Percentage and Number of Households Planning to Ski at Spirit Mountain Next Season</u>	
0	14.6	(30)
1	36.3	(75)
2	27.2	(56)
3	11.7	(24)
4	4.9	(10)
5	2.9	(6)
6	1.9	(4)
9	.5	(1)
	<hr/>	<hr/>
TOTALS	100.0	(206)
	<hr/>	<hr/>

TABLE 18

HOW MANY TIMES WILL YOUR HOUSEHOLD GO TO
SPIRIT MOUNTAIN IN THE NEXT SKI SEASON?
DULUTH, MINNESOTA

December, 1979

<u>Number of Times Will Go to Spirit Mountain</u>	<u>Percentage and Number of Households Which Will Go to Spirit Mountain Next Season</u>
0	17.0 (35)
1	3.9 (8)
2	8.7 (18)
3	11.1 (23)
4	7.8 (16)
5	9.7 (20)
6	4.9 (10)
7	3.9 (8)
8	1.5 (3)
9 or more	31.5 (65)
	<hr/>
TOTALS	100.0 (206)
	<hr/> <hr/>

TABLE 19

HOW MANY PERSONS IN YOUR HOUSEHOLD WENT
SKIING AT EACH OF THESE SKI AREAS
IN THE LAST SKI SEASON
DULUTH, MINNESOTA

December, 1979

<u>Number of Persons</u>	<u>Minneapolis- St. Paul Area</u>		<u>Northern Minnesota Outside Duluth</u>		<u>Northern Wisconsin or Michigan</u>		<u>Colorado or Other Western State</u>	
	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>
0	87.9	(181)	62.6	(129)	77.7	(160)	85.4	(176)
1	5.3	(11)	18.4	(38)	8.7	(18)	6.8	(14)
2	4.4	(9)	13.1	(27)	8.3	(17)	6.8	(14)
3	.5	(1)	1.5	(3)	1.9	(4)	.5	(1)
4	.5	(1)	1.9	(4)	.5	(1)		
5	.5	(1)	1.5	(3)	2.4	(5)	.5	(1)
6			1.0	(2)				
7								
8					.5	(1)		
9 or more	1.0	(2)						
TOTALS	100.0	(206)	100.0	(206)	100.0	(206)	100.0	(206)

TABLE 20

DID ANYONE IN YOUR HOUSEHOLD BELONG TO A SKI
CLUB IN THE LAST SEASON?
DULUTH, MINNESOTA

December, 1979

<u>Answer</u>	<u>Percentage and Number of A Sample of Duluth Skiing Households</u>	
Yes	3.9%	(8)
No	69.4%	(143)
No Answer	26.7%	(55)
	<hr/>	<hr/>
TOTAL	100.0%	(206)
	<hr/>	<hr/>

TABLE 21

DID THAT SKI CLUB VISIT ANY OF THESE AREAS
IN THE LAST SKI SEASON?
(Percentage and Number of A Sample of Skiing Households)
DULUTH, MINNESOTA

December, 1979

<u>Number</u>	<u>Northern Minnesota Outside Duluth</u>	<u>Northern Wisconsin and Michigan</u>	<u>Colorado and Other Western States</u>	<u>Spirit Mountain</u>
0	98.0 (202)	98.0 (202)	99.0 (204)	97.5 (201)
1		1.0 (2)	1.0 (2)	
2		.5 (1)		
3	1.0 (2)			1.0 (2)
4	.5 (1)	.5 (1)		.5 (1)
5				
6				
7				.5 (1)
8				
9	.5 (1)			.5 (1)
TOTALS	<u>100.0 (206)</u>	<u>100.0 (206)</u>	<u>100.0 (206)</u>	<u>100.0 (206)</u>

TABLE 22

WHAT HAS YOUR HOUSEHOLD KNOWN OR HEARD ABOUT
SNOW CONDITIONS, LENGTH OF RUNS, AND
DEGREE OF DIFFICULTY OF RUNS AT
SPIRIT MOUNTAIN?

(Percentage and Number of a Sample of Duluth, Minnesota Skiing Households)

December, 1979

<u>Rating</u>	<u>Snow Conditions</u>	<u>Length of Runs</u>	<u>Difficulty of Runs</u>
Very Satisfactory	23.3 (48)	11.7 (24)	18.4 (38)
Fairly Satisfactory	61.7 (127)	47.0 (97)	50.5 (104)
Barely Satisfactory	4.4 (9)	15.5 (32)	10.2 (21)
Unsatisfactory	1.9 (4)	8.3 (17)	2.9 (6)
No Answer	8.7 (18)	17.5 (36)	18.0 (37)
TOTALS	<u>100.0 (206)</u>	<u>100.0 (206)</u>	<u>100.0 (206)</u>

TABLE 23

WHAT HAS YOUR HOUSEHOLD KNOWN OR HEARD ABOUT
 QUALITY OF FOOD, QUALITY OF FOOD SERVICE,
 AND KIND OF FOOD AND SERVICE AFTER
 SKIING AT SPIRIT MOUNTAIN?

(Percentage and Number of A Sample of Duluth, Minnesota Skiing Households)

December, 1979

<u>Ratings</u>	<u>Food Quality</u>	<u>Food Service</u>
Very Satisfactory	30.6 (63)	25.7 (53)
Fairly Satisfactory	45.1 (93)	48.1 (99)
Barely Satisfactory	5.8 (12)	4.9 (10)
Unsatisfactory	3.4 (7)	2.9 (6)
No Answer	15.1 (31)	18.4 (38)
TOTALS	<u>100.0 (206)</u>	<u>100.0 (206)</u>

KIND OF FOOD AND SERVICE AFTER SKIING

	<u>Percentage of Skiing Households</u>	<u>Number of Skiing Households</u>
Too Formal	5.3	11
Too Informal	3.9	8
No Answer	<u>90.8</u>	<u>187</u>
TOTALS	<u>100.0</u>	<u>206</u>

TABLE 24

WHAT HAS YOUR HOUSEHOLD KNOWN OR HEARD ABOUT
SERVICE, COMFORT, AND CROWDING AT
THE SPIRIT MOUNTAIN CHALET?

(Percentage and Number of a Sample of Duluth, Minnesota Skiing Households)

December, 1979

<u>Rating</u>	<u>Chalet Service</u>	<u>Chalet Comfort</u>	<u>Chalet Crowding</u>
Very Satisfactory	22.8 (47)	27.2 (56)	2.9 (6)
Fairly Satisfactory	53.4 (110)	45.6 (94)	29.6 (61)
Barely Satisfactory	3.9 (8)	7.8 (16)	16.1 (33)
Unsatisfactory	1.0 (2)	3.4 (7)	35.9 (74)
No Answer	18.9 (39)	16.0 (33)	15.5 (32)
TOTALS	100.0 (206)	100.0 (206)	100.0 (206)

TABLE 25

WHERE DID YOUR HOUSEHOLD FIRST HEAR ABOUT
SPIRIT MOUNTAIN, DULUTH, MINNESOTA?

(Percentage and Number of a Sample of Duluth, Minnesota Skiing Households)

December, 1979

<u>Sources</u>	<u>Percentage of A Sample of Skiing Households</u>	<u>Number In A Sample of Skiing Households</u>
Advertising Media	76.2	157
Friends	17.5	36
News Stories	5.3	11
Had Not Heard of Spirit Mountain	—	—
No Answer	1.0	2
	<hr/>	<hr/>
TOTALS	100.0	206
	<hr/>	<hr/>

TABLE 26

HOW IMPORTANT IS THE PRICE OF A TOW OR LIFT
TICKET IN DETERMINING WHERE YOU WILL
SKI?

(Percentage and Number of a Sample of Duluth, Minnesota Skiing Households)

December, 1979

<u>Rating</u>	<u>Percentage of Skiing Households</u>	<u>Number of Skiing Households</u>
Very Important	30.1	62
Somewhat Important	30.6	63
Rather Unimportant	14.6	30
Not at All Important	19.4	40
No Answer	5.3	11
TOTALS	100.0	206

TABLE 27

WOULD YOU CHANGE YOUR SKI TRIP FROM THE WEEKEND
TO MIDWEEK IF THE PRICE OF THE LIFT
TICKET WERE LOWER AT MIDWEEK?

(Percentage and Number of a Sample of Duluth, Minnesota Skiing Households)

December, 1979

<u>Answer</u>	<u>Percentage of Skiing Households</u>	<u>Number of Skiing Households</u>
Yes	69.9	144
No	22.8	47
No Answer	7.3	15
	<hr/>	<hr/>
TOTALS	100.0	206
	<hr/>	<hr/>

TABLE 28

HOW IMPORTANT IS THE PRICE OF YOUR LODGING
IN THE COST OF YOUR SKI VACATION?

(Percentage and Number of a Sample of Duluth, Minnesota, Skiing Households)

December, 1979

<u>Rating</u>	<u>Percentage of Skiing Households</u>	<u>Number of Skiing Households</u>
Very Important	45.1	93
Somewhat Important	20.9	43
Rather Unimportant	7.3	15
Not At All Important	12.6	26
No Answer	14.1	29
	<hr/>	<hr/>
TOTALS	100.0	206
	<hr/>	<hr/>

TABLE 29

DURING THE LAST SKI SEASON HOW MANY OF
YOUR SKI TRIPS WERE BY THESE
MEANS OF TRANSPORTATION?

(Percentage and Number of Trips of A Sample of Duluth, Minnesota Skiing Households)

December, 1979

Number of Trips	Automobile	Bus	Railroad	Air
0	4.9 (10)	91.2 (188)	99.5 (205)	96.1 (198)
1	5.3 (11)	3.9 (8)	.5 (1)	3.4 (7)
2	6.8 (14)	1.9 (4)		.5 (1)
3	8.7 (18)	1.0 (2)		
4	9.2 (19)			
5	7.3 (15)			
6	5.3 (11)			
7	4.4 (9)	.5 (1)		
8	2.4 (5)			
9 or more	45.7 (94)	1.5 (3)		
TOTALS	100.0 (206)	100.0 (206)	100.0 (206)	100.0 (206)

TABLE 30

HOW SATISFIED WERE YOU WITH YOUR HOTEL OR MOTEL
ACCOMMODATIONS IN DULUTH ON YOUR LAST VISIT?
(Percentage and Number of a Sample of Duluth, Minnesota Skiing Households)

December, 1979

<u>Rating</u>	<u>Percentage of Skiing Households</u>	<u>Number of Skiing Households</u>
Very Satisfied	28.6	59
Somewhat Satisfied	15.0	31
Uncertain	3.9	8
Somewhat Dissatisfied	3.4	7
Very Dissatisfied	1.0	2
No Answer	48.1	99
	<hr/>	<hr/>
TOTALS	100.0	206
	<hr/> <hr/>	<hr/> <hr/>

TABLE 31

HOW IMPORTANT IS IT TO YOU TO HAVE
LODGING ON SPIRIT MOUNTAIN?

(Percentage and Number of a Sample of Duluth, Minnesota Skiing Households)

December, 1979

<u>Rating</u>	<u>Percentage of Skiing Households</u>	<u>Number of Skiing Households</u>
Very Important	41.7	86
Somewhat Important	20.4	42
Not Important	24.3	50
No Answer	13.6	28
TOTALS	100.0	206

TABLE 32

PRINCIPAL HOTELS OR MOTELS YOU WOULD RECOMMEND THE
 NEXT TIME YOU OR A FRIEND VISITS DULUTH
 (Percentage and Number of a Sample of Duluth, Minnesota Skiing Households)

December, 1979

<u>Hotels or Motels</u>	<u>First Hotel or Motel Recommended</u>	<u>Second Hotel or Motel Recommended</u>
Normandy	24.8 (51)	20.4 (42)
Radisson-Duluth	21.8 (45)	20.9 (43)
Edgewater	13.1 (27)	11.2 (23)
Hotel Duluth	5.8 (12)	1.9 (4)
Holiday	4.9 (10)	3.4 (7)
Budget Inn	3.4 (7)	1.9 (4)
Buena Vista	1.9 (4)	.5 (1)
Spirit Mountain	1.5 (3)	2.4 (5)
Thrifty Scot	1.5 (3)	1.9 (4)
Grand Motel	1.0 (2)	
Lake Aire	1.0 (2)	.5 (1)
Viking Motel	1.0 (2)	.5 (1)
Downtown	.5 (1)	1.0 (2)
Bridgeview	.5 (1)	
Duluth Motel	.5 (1)	
Sundown	.5 (1)	
Voyageur	.5 (1)	.5 (1)
Willard	.5 (1)	
Other	15.3 (32)	34.9 (72)
TOTALS	100.0 (206)	100.0 (206)

TABLE 33

PRINCIPAL RESTAURANTS YOU WOULD RECOMMEND THE
NEXT TIME YOU OR A FRIEND VISITS DULUTH
(Percentage and Number of A Sample of Duluth, Minnesota Skiing Households)

December, 1979

<u>Restaurant</u>	<u>First Restaurant Recommended</u>	<u>Second Restaurant Recommended</u>
Chinese Lantern	24.3 (50)	13.1 (27)
Pickwick	12.1 (25)	10.7 (22)
Grandma's	11.7 (24)	8.7 (18)
Bellows	7.8 (16)	6.8 (14)
Jolly Fisher	6.8 (14)	7.8 (16)
Spirit Mountain	3.9 (8)	1.9 (4)
Black Steer	2.9 (6)	2.4 (5)
Highland	2.9 (6)	3.4 (7)
Anchor Inn	1.9 (4)	1.0 (2)
Normandy	1.5 (3)	4.4 (9)
Perkins	1.5 (3)	1.0 (2)
Robin Hood	1.5 (3)	1.0 (2)
Branding Iron	1.0 (2)	1.5 (3)
Casa De Roma	1.0 (2)	1.5 (3)
Country Kitchen	1.0 (2)	1.0 (2)
Mr. Steak	1.0 (2)	.5 (1)
Radisson	1.0 (2)	2.4 (5)
Williams North Shore	1.0 (2)	8.3 (17)
Others	15.2 (32)	22.6 (47)
TOTALS	<u>100.0 (206)</u>	<u>100.0 (206)</u>

TABLE 34

HOW SATISFIED WERE YOU WITH THE FOOD AND SERVICE
ON YOUR LAST VISIT TO A DULUTH RESTAURANT?
(Percentage and Number of a Sample of Duluth, Minnesota Skiing Households)

December, 1979

<u>Rating</u>	<u>Percentage of Skiing Households</u>	<u>Number of Skiing Households</u>
Very Satisfied	64.0	132
Somewhat Satisfied	27.2	56
Uncertain	.5	1
Somewhat Dissatisfied	3.9	8
Very Dissatisfied	4.4	9
No Answer	--	--
	<hr/>	<hr/>
TOTALS	100.0	206
	<hr/>	<hr/>

TABLE 35

PLEASE ESTIMATE THE TOTAL AMOUNT WHICH YOUR HOUSEHOLD
 SPENT ON YOUR LAST SKI VACATION IN
 NORTHERN MINNESOTA, WISCONSIN
 OR MICHIGAN

(Percentage and Number of a Sample of Duluth, Minnesota Skiing Households)

December, 1979

<u>Amount</u>	<u>Percentage of Skiing Households</u>	<u>Number of Skiing Households</u>
0-\$200	38.3	79
\$201 to \$400	9.7	20
\$401 to \$600	1.5	3
\$601 to \$800	1.0	2
\$801 to \$1000	1.5	3
\$1001 to \$1500	.5	1
\$1501 or More	.5	1
No Answer	47.0	97
	<hr/>	<hr/>
TOTALS	100.0	206
	<hr/>	<hr/>

TABLE 36

HOW MANY MEMBERS OF YOUR HOUSEHOLD
WERE ON THAT SKI VACATION?

(Referring to Last Ski Vacation in Northern Minnesota, Wisconsin or
Michigan Except Duluth)

(Percentage and Number of a Sample of Duluth Minnesota Skiing Households)

December, 1979

<u>Number of Persons</u>	<u>Percentage of Skiing Households</u>	<u>Number of Skiing Households</u>
1	18.9	39
2	21.8	45
3	5.8	12
4	3.4	7
5	1.5	3
6		
7		
8		
9		
No Answer	<u>48.6</u>	<u>100</u>
TOTALS	<u>100.0</u>	<u>206</u>

TABLE 37

DO YOU THINK THAT THE AVAILABILITY OF CROSS COUNTRY
SKIING AT SPIRIT MOUNTAIN:
(Percentage and Number of a Sample of Duluth, Minnesota Skiing Households)

December, 1979

<u>Rating</u>	<u>Percentage of Skiing Households</u>	<u>Number of Skiing Households</u>
Encourages More Skiing There?	39.3	81
Discourages Skiing There?	4.9	10
Has No Effect On Skiing Plans?	52.4	108
No Answer	3.4	7
	<hr/>	<hr/>
TOTALS	100.0	206
	<hr/>	<hr/>

TABLE 38

DO YOU THINK THAT THE AVAILABILITY OF
NIGHT SKIING AT SPIRIT MOUNTAIN:

(Percentage and Number of a Sample of Duluth, Minnesota Skiing Households)

December, 1979

<u>Rating</u>	<u>Percentage of Skiing Households</u>	<u>Number of Skiing Households</u>
Encourages More Skiing There?	70.4	145
Discourages Skiing There?	1.9	4
Has No Effect On Skiing Plans?	23.3	48
No Answer	4.4	9
TOTALS	100.0	206

TABLE 39

WHAT TYPES OF FOOD AND BEVERAGE SERVICE WOULD
YOU LIKE AT SPIRIT MOUNTAIN?

(Percentage and Number of a Sample of Duluth, Minnesota Skiing Households)

December, 1979

<u>Type</u>	<u>Percentage of Skiing Households</u>	<u>Number of Skiing Households</u>
Standup Quick Service Food And Beverage	31.6	65
Inexpensive Table Service	38.8	80
Full Service Dining Room With Complete Menu	9.7	20
Full Service Dining Room with Entertainment	13.1	27
Other	3.9	8
No Answer	2.9	6
	<hr/>	<hr/>
TOTALS	100.0	206
	<hr/>	<hr/>

TABLE 40

WHAT DO YOU LIKE MOST ABOUT
SPIRIT MOUNTAIN?

(Percentage and Number of a Sample of Duluth, Minnesota Skiing Households)

December, 1979

<u>Subject</u>	<u>Percentage of Skiing Households</u>	<u>Number of Skiing Households</u>
Attractive Ski Runs	11.7	24
Short Driving Distance to Spirit Mountain	40.8	84
Scenery	28.6	59
Chalet Attractive	1.9	4
Spirit Mountain Villas	--	--
Short Wait for Lift	1.0	2
Little Crowding	.5	1
Adequate Parking	--	--
Ski Shop	--	--
Cross Country Skiing	--	--
Courtesy	.5	1
Other	12.1	25
No Answer	2.9	6
	<hr/>	<hr/>
TOTALS	100.0	206
	<hr/> <hr/>	<hr/> <hr/>

TABLE 41

WHAT DO YOU DISLIKE MOST
ABOUT SPIRIT MOUNTAIN?

(Percentage and Number of a Sample of Duluth, Minnesota Skiing Households)

December, 1979

<u>Subjects</u>	<u>Percentage of Skiing Households</u>	<u>Number of Skiing Households</u>
Crowding	21.8	45
Waiting for Lift	3.4	7
Ski Runs Inadequate	6.8	14
Ski Shop	--	--
Driving Distance to Spirit Mountain	1.0	2
Easy Runs	1.0	2
Snow Conditions Poor	--	--
Parking Inadequate	8.7	18
Food Service	1.5	3
Spirit Mountain Villas	--	--
Resort Roads	.5	1
Chalet	.5	1
Cross Country Skiing	1.5	3
Discourtesy	1.0	2
Other	34.0	70
No Answer	18.3	38
	<hr/>	<hr/>
TOTALS	100.0	206
	<hr/>	<hr/>

TABLE 42

WHAT ARE YOUR THREE FAVORITE SKI AREAS IN THE UPPER
MIDWEST OUTSIDE OF THE TWIN CITIES?
(Percentage and Number of a Sample of Duluth, Minnesota Skiing Households)

December, 1979

<u>Ski Areas</u>	<u>Favorite Ski Areas in Upper Midwest Percentage and Number</u>			
	<u>First Choice</u>	<u>Second Choice</u>	<u>Third Choice</u>	<u>Total Number</u>
Lutzen	45.6 (94)	5.8 (12)	.5 (1)	107
Telemark	3.4 (7)	9.2 (19)	3.9 (8)	34
Spirit Mountain	14.6 (30)	20.4 (42)	6.8 (14)	86
Indian Head	4.9 (10)	6.8 (14)	5.3 (11)	35
Sugar Hills	1.9 (4)	4.4 (9)	4.4 (9)	22
Quadna	.5 (1)	1.0 (2)	2.9 (6)	9
Montana	.5 (1)	-----	-----	1
White Cap	.5 (1)	.5 (1)	.5 (1)	3
Powder Horn	.5 (1)	1.5 (3)	6.8 (14)	18
Iron Mountain	.5 (1)	1.0 (2)	.5 (1)	4
Thunder Bay	.5 (1)	1.0 (2)	.5 (1)	4
Bemidji	.5 (1)	-----	-----	1
?	2.4 (5)	1.9 (4)	1.0 (2)	11
Afton	-----	1.0 (2)	-----	2
Troll Haugen	-----	.5 (1)	-----	1
Porcupine	-----	1.5 (3)	.5 (1)	4
Powder Ridge	-----	.5 (1)	-----	1
Mt. McKay	-----	.5 (1)	1.0 (2)	3
Other	7.3 (15)	8.3 (17)	11.2 (23)	55
No Answer	<u>16.5 (34)</u>	<u>34.2 (71)</u>	<u>54.2 (112)</u>	<u>217</u>
TOTALS	100.0 (206)	100.0 (206)	100.0 (206)	6.8

TABLE 43

WHY DID YOU SELECT YOUR FAVORITE SKI AREA?
 (Percentage and Number of a Sample of Duluth, Minnesota Skiing Households)

December, 1979

<u>Reason</u>	<u>Percentage of Skiing Households</u>	<u>Number of Skiing Households</u>
Attractive Ski Runs	26.7	55
Reasonable Driving Distance	17.0	35
Cross Country Runs	4.9	10
Scenery	12.1	25
Crowding Minimal	2.9	6
Snow Conditions	--	--
Chalet	1.5	3
Entertainment	--	--
Resort Roads	--	--
Waiting For Lift	--	--
Food	.5	1
Staff	.5	1
Other	13.1	27
No Answer	20.8	43
TOTALS	100.0	206

TABLE 44

OCCUPATION OF PRINCIPAL MALE AND FEMALE IN HOUSEHOLD
(Percentage and Number of a Sample of Duluth, Minnesota Skiing Households)

December, 1979

<u>Type</u>	<u>Principal Male Occupation</u>	<u>Principal Female Occupation</u>
Professional	20.9 (43)	18.4 (38)
Managers and Administrators	17.5 (36)	5.3 (11)
Salesworkers	5.3 (11)	4.4 (9)
Clerical Workers	.5 (1)	12.6 (26)
Craft and Kindred Workers	12.1 (25)	---
Operatives	5.3 (11)	1.5 (3)
Transportation Operators	4.4 (9)	---
Nonfarm Laborers	7.3 (15)	
Service Workers	1.5 (3)	4.9 (10)
Students	7.8 (16)	4.9 (10)
Homemakers		31.1 (64)
Other	8.3 (17)	2.9 (6)
No Answer	9.1 (19)	14.0 (29)
	<hr/>	<hr/>
TOTALS	100.0 (206)	100.0 (206)
	<hr/>	<hr/>

TABLE 45

EDUCATION OF PRINCIPAL MALE AND FEMALE IN HOUSEHOLD
(Percentage and Number of a Sample of Duluth, Minnesota Skiing Households)

December, 1979

<u>Type</u>	<u>Principal Male Education</u>	<u>Principal Female Education</u>
High School	25.2 (52)	35.0 (72)
Some College or Vocational School	31.6 (65)	28.6 (59)
College Degree	34.5 (71)	24.3 (50)
No Answer	8.7 (18)	12.1 (25)
TOTALS	100.0 (206)	100.0 (206)

TABLE 46

AGE GROUP OF RESPONDENTS

(Percentage and Number of a Sample of Duluth, Minnesota Skiing Households)

December, 1979

<u>Respondents</u>	<u>Percentage of Skiing Households</u>	<u>Number of Skiing Households</u>
Male 19 or Younger	3.9	8
Female 19 or Younger	2.4	5
Male 20 to 39 Years	25.7	53
Female 20 to 39 Years	37.9	78
Male 40 or Over	9.7	20
Female 40 or Over	19.4	40
No Answer	<u>1.0</u>	<u>2</u>
TOTALS	100.0	206

DULUTH-SPIRIT MOUNTAIN TOURISM STUDY

Duluth Only - December, 1979

Information Provided to Interviewers

Telephone Number: _____

Household Name: _____

Interviewer Name: _____

Information Provided to Key Punch Operators

1,2,3 Questionnaire Number

(To Interviewer: Begin interview with this statement.)

"My name is _____, and I am making a survey on winter vacations. If you are the principal man or woman in your household, will you please answer a few questions?"

How many persons live in your household and how many went skiing during the last ski season?

- | | | | | | | | | | | | |
|-------|---|------------|---|-----------------|---|---|---|---|---|-----------|-----------|
| 4 () | Number in household | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 or more | |
| 5 () | Number skiing | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 or more |
| 6 () | What type of skiing do you do personally? | 1=downhill | | 2=cross country | | | | | | | |
| | | 3=none | | 4=no answer | | | | | | | |

Interviewer: If 0 on 5, thank respondent and terminate interview.

How many persons in each of these age groups live in your household and how many went skiing during the last ski season?

- | | | | | | | | | | | | |
|--------|--|---|---|---|---|---|---|---|---|---|-----------|
| 7 () | Number of young men or boys <u>19 years or younger</u> living in your household | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 or more |
| 8 () | And the number of young men and boys who went skiing in the last ski season | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 or more |
| 9 () | Number of young women or girls <u>19 years or younger</u> living in your household | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 or more |
| 10 () | And the number of young women and girls who went skiing in the last ski season | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 or more |
| 11 () | Number of men <u>20 to 39 years</u> living in your household | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 or more |
| 12 () | And the number of men 20 to 39 years who went skiing in the last ski season | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 or more |

13 ()	Number of women <u>20 to 39 years</u> living in your household	0	1	2	3	4	5	6	7	8	9 or more
14 ()	And the number of women 20 to 39 years who went skiing in the last ski season	0	1	2	3	4	5	6	7	8	9 or more
15 ()	Number of men <u>40 years and over</u> living in your household	0	1	2	3	4	5	6	7	8	9 or more
16 ()	And the number of men 40 years and over who went skiing in the last ski season	0	1	2	3	4	5	6	7	8	9 or more
17 ()	Number of women <u>40 years and over</u> living in your household	0	1	2	3	4	5	6	7	8	9 or more
18 ()	And the number of women 40 years and over who went skiing in the last ski season	0	1	2	3	4	5	6	7	8	9 or more
19 ()	How many times did your household go for only one day to skiing areas outside the <u>Duluth</u> area during the last ski season?	0	1	2	3	4	5	6	7	8	9 or more
20 ()	How many times did your household go for overnight skiing trips to skiing areas outside the <u>Duluth</u> area during the last season?	0	1	2	3	4	5	6	7	8	9 or more
21 ()	In which one of these age groups are you? (1) Male 19 or younger (2) Female 19 or younger, (3) Male 20 to 39, (4) Female 20 to 39, (5) Male 40 or over, (6) Female 40 or over, (0) None										
How many of the skiers in each age group in your household went skiing at Spirit Mountain in Duluth in the last season?"											
22 ()	Boys 19 years or younger	0	1	2	3	4	5	6	7	8	9 or more
23 ()	Girls 19 years or younger	0	1	2	3	4	5	6	7	8	9 or more
24 ()	Men 20 to 39 years	0	1	2	3	4	5	6	7	8	9 or more
25 ()	Women 20 to 39 years	0	1	2	3	4	5	6	7	8	9 or more
26 ()	Men 40 years and over	0	1	2	3	4	5	6	7	8	9 or more
27 ()	Women 40 years and over	0	1	2	3	4	5	6	7	8	9 or more
28 ()	How many persons in your household are planning to ski at Spirit Mountain in Duluth during the next ski season?	0	1	2	3	4	5	6	7	8	9 or more
29 ()	How many times will your household go to Spirit Mountain in the next ski season?	0	1	2	3	4	5	6	7	8	9 or more

How many persons in your household went skiing at each of these ski areas in the last ski season?

30 ()	Minneapolis-St. Paul area	0	1	2	3	4	5	6	7	8	9 or more
31 ()	Northern Minnesota	0	1	2	3	4	5	6	7	8	9 or more
32 ()	Northern Wisconsin or Michigan	0	1	2	3	4	5	6	7	8	9 or more
33 ()	Colorado or other Western State	0	1	2	3	4	5	6	7	8	9 or more

34 () Did any one in your household belong to a ski club in the last ski season? 0= No answer 1= Yes 2= No

Did that ski club visit any of these areas in the last ski season?

35 ()	Northern Minnesota	0	1	2	3	4	5	6	7	8	9 or more
36 ()	Northern Wisconsin or Michigan	0	1	2	3	4	5	6	7	8	9 or more
37 ()	Colorado or other Western State	0	1	2	3	4	5	6	7	8	9 or more
38 ()	Spirit Mountain, Duluth	0	1	2	3	4	5	6	7	8	9 or more

39 () Has your household known or heard that at Spirit Mountain in Duluth the ski runs are about the same, better, or worse than those in Northern Wisconsin, Michigan, and Minnesota? 0=No answer 1=Same 2=Better 3=Worse

Has your household known or heard that during the LAST season at Spirit Mountain in Duluth:

0 () Snow conditions ~~were~~ generally 1=Very Satisfactory 2=Fairly Satisfactory 3= Barely Satisfactory 4= Unsatisfactory 5=No answer

1 () Length of ski runs ^{were} generally: 1=Very Satisfactory 2=Fairly Satisfactory 3=Barely Satisfactory 4=Unsatisfactory 5=No Answer

2 () Degree of difficulty of ski runs ~~was~~ generally: 1=Very satisfactory 2=Fairly satisfactory 3=Barely satisfactory 4=Unsatisfactory 5=No answer

3 () Has your household known or heard that the food and food service at Spirit Mountain is about the same, better, or worse than the food at other ski resorts in Northern Wisconsin, Michigan, and Minnesota? 0=No answer 1=Same 2=Better 4=Worse

Has your household known or heard that at Spirit Mountain:

- 44 () Quality of food is: 1=Very satisfactory 2=Fairly satisfactory
3=Barely satisfactory 4=Unsatisfactory
5=No answer
- 45 () Quality of food service is: 1=Very satisfactory 2=Fairly satisfactory
3=Barely satisfactory 4=Unsatisfactory
5=No answer
- 46 () Kind of food and service after skiing is: 1=Too formal 2=Too informal 3=No answer
-
- 47 () Has your household known or heard that the chalet at Spirit Mountain in Duluth is about as attractive as, or more or less attractive than the chalets at other ski resorts in Northern Wisconsin, Michigan and Minnesota? 0=No answer 1=Same 2=More 3=Less

Has your household known or heard that at Spirit Mountain:

- 48 () Service at ski chalet is: 1=Very satisfactory 2=Fairly satisfactory
3=Barely satisfactory 4=Unsatisfactory
5=No answer
- 49 () Comfort at ski chalet is: 1=Very satisfactory 2=Fairly satisfactory
3=Barely satisfactory 4=Unsatisfactory
5=No answer
- 50 () Amount of crowding at ski chalet is: 1=Very satisfactory 2=Fairly satisfactory
3=Barely satisfactory 4=Unsatisfactory
5=No answer
-
- 51 () Where did your household first hear about Spirit Mountain in Duluth? 1=From advertising media (newspapers, magazines, TV, radio, outdoor signs)
2=From friends
3=From news stories
4=Have not previously heard of Spirit Mountain
5=No answer

How likely would the following be to reduce the number of your household skiing trips during the next ski season?

- 52 () (A) Inflation resulting in reduced family income 1=Very likely 2=Don't know
3=Unlikely 4=No answer
- 53 () (B) Gasoline shortages 1=Very likely 2=Don't know
3=Unlikely 4=No answer
- 54 () (C) Increased prices at ski resorts 1=Very likely 2=Don't know
3=Unlikely 4=No answer

- 15 () How important is the price of a tow or lift ticket in determining where you will ski?
- 1=Very important 2=Somewhat important
3=Rather Unimportant 4=Not at all important
0=No answer

- 16 () Would you change your ski trip ^{to Spirit Mountain} from the weekend to midweek if the price of the lift ticket were lower at midweek?
- 1=Yes 2=No 3=No answer

- 17 () How important is the price of your lodging in the cost of your ski vacation in areas other than Duluth?
- 1=Very important 2=Somewhat important
3=Rather unimportant 4=Not at all important
0=No answer

During the last ski season how many of your ski trips were by:

- | | | | | | | | | | | | |
|-------|--------------------|---|---|---|---|---|---|---|---|---|-----------|
| 8 () | Private Automobile | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 or more |
| 9 () | Bus | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 or more |
| 0 () | Railroad | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 or more |
| 1 () | Airplane | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 or more |

- 2 () How satisfied were you or ^{your friends with} hotel or motel accommodations in Duluth on the last visit?
- 1=Very satisfied 2=Somewhat satisfied
3=Uncertain 4=Somewhat dissatisfied
5=Very dissatisfied 0=No answer

- 3 () How important is it ^{to visitors} to have lodging on Spirit Mountain?
- 1=Very important 2=Somewhat important
3=Not important 4=No answer

Which two hotels or motels would you recommend the next time you or a friend visits Duluth?

- 4-65 () Code _____
- 6-67 () Code _____

Which two restaurants would you recommend the next time you or a friend visits a Duluth restaurant?

- 3-69 () Code _____
- 7-71 () Code _____

- 2 () How satisfied were you with the food and service on your last visit to a Duluth restaurant?
- 1=Very satisfied 2=Somewhat satisfied
3=Uncertain 4=Somewhat dissatisfied
5=Very dissatisfied 0=No answer

73 ()	Please estimate the total amount which your household spent on your last ski vacation in Northern Minnesota, Wisconsin or Michigan, in areas other than Duluth.	\$ 0 to \$ 200	1
		201 to 400	2
		401 to 600	3
		601 to 800	4
		801 to 1,000	5
		1,001 to 1,500	6
		1,501 to 2,000	7
		2,001 to 2,500	8
		2,501 or more	9
		No answer	0

74 ()	How many members of your household were on that ski vacation?	0	1	2	3	4	5	6	7	8	9 or more
--------	---	---	---	---	---	---	---	---	---	---	-----------

75 ()	Do you think that the availability of cross country skiing at Spirit Mountain:	1=encourages your household to ski there more 2=discourages your household from skiing there 3=has no effect on household skiing plans 0=no answer
--------	--	---

76 ()	Do you think that the availability of night skiing at Spirit Mountain:	1=encourages your household to ski there more 2=discourages your household from skiing there 3=has no effect on household skiing plans 0=no answer
--------	--	---

77 ()	What types of food and beverage would you like at Spirit Mountain? (1) standup quick service food and beverage, (2) inexpensive table service, (3) full-service dining room with complete menu, (4) full-service dining room with entertainment, (5) other, (6) no answer.
--------	--

78.	Do you believe that Spirit Mountain is now being operated: (1) very efficiently, () (2) somewhat efficiently, (3) uncertain, (4) somewhat inefficiently, (5) very inefficiently.
-----	--

- 11-12 What do you like most about Spirit Mountain? (1) Attractive ski runs,
 () (2) short driving distance to Spirit Mountain, (3) Scenery at Spirit Mountain, (4) Attractive Chalet, (5) Attractive Spirit Mountain Villas, (6) Short wait for the ski lift, (7) Little crowding, (8) Adequate parking, (9) Attractive ski shop, (10) Attractive cross country skiing, (11) employee courtesy (12) Other reason - List below:

(99) No answer .

- 13-14 What do you dislike most about Spirit Mountain? (1) Too much crowding,
 () (2) Waiting for the ski lift, (3) Ski runs are inadequate, (4) Ski shop is unattractive, (5) Driving distance to Spirit Mountain is too great, (6) Runs are too easy, (7) Snow conditions are usually poor, (8) Parking is inadequate, (9) Food service is inadequate, (10) Spirit Mountain Villas are unsatisfactory, (11) Resort roads are inadequate, (12) Chalet is inadequate, (13) Cross country skiing is inadequate, (14) employee discourtesy, (15) other-list below.

(99) No answer.

- 15-16 What are your three favorite ski areas in the upper Midwest outside of the
 () Twin Cities?

- 17-18 (1) Lutzen, (2) Telemark, (3) Afton, (4) Troll Haugen, (5) Spirit Mountain,
 ()

- (6) Indian Head, (7) Birch Park, Wis., (8) Wild Mountain, (9) Sugar Hills,

19-20

- () (10) Quadna, (11) Welsh Village, (12) Porcupine, (13) Snow Crest,

- (14) Montana Resorts, (15) White Cap, (16) Birchcrest, (17) Powder Horn,

- (18) Iron Mountain, (19) Thunder Bay, (20) Detroit Mountain, (21) Bemidji,

- (22) Powder Ridge, (23) Bridge, (24) Park Rapids, (25) Red Mountain,

- (26) M6 Du Lac Ski Area, Duluth (27) Brule River Cross Country Skiing,

- (28) Lakeview Ski Chalet, Duluth, (29) Mount McKay, Thunder Bay, Canada

- (30) Other. List

(99) No answer.

- 21-22 Give one reason why you like these ski areas.

- () (1) Attractive ski runs, (2) short driving distance to ski resort, (3) scenery,

- (4) attractive chalet, (5) attractive villas, dormitories, or housing,

- (6) short wait for ski lifts, (7) little crowding, (8) adequate parking,

- (9) attractive ski shop, (10) attractive cross country skiing, (11) interesting shopping areas near skiing resort, (12) attractive food and food service,

- (13) friendly staff at resort, (14) other - list below. (99) no answer.

23-24 What is the principal occupation of the principal male in your household?
 () (Give name of occupation. Select classification number from the list to write in the brackets.)

- (1) professional (physicians, attorneys, teachers, nurses, certified public accountants, engineers, actors and actresses, others of same nature)
- (2) managers and administrators (owners and managers of businesses, sales managers, personnel managers, accounting managers, heads of government departments, school administrators, others of same nature)
- (3) salesworkers (sales persons in stores and other business organizations)
- (4) clerical workers (typists, secretaries, filing clerks, office workers who are not administrators, and others of same nature)
- (5) craft and kindred workers (carpenters, plumbers, painters, and others of similar nature)
- (6) operatives (operators of steam shovels and other equipment, factory machine operators, and others of same nature)
- (7) transportation operators (truck and bus drivers, railroad engineers, pilots, and others of similar nature)
- (8) nonfarm laborers (persons who do physical labor on streets, construction, and the like)
- (9) service workers (all persons who provide service except those in the groups above,- includes beauty operators, barbers, waiters, waitresses, etc.)
- (10) students
- (11) homemaker (person, usually wife, who maintains home)
- (12) other
- (99) no answer

25-26 What is the principal occupation of the principal female in your household?
 () (Give name of occupation and select classification number from list to write in the brackets.)

27() Would you please tell me in which educational unit the principal male is?

- (1) High school graduate or less, (2) some college, junior college, or vocational school, (3) college degree or more, (4) no answer.

28() Would you please tell me in which educational unit the principal female is?
 (Interviewer use the four units in question 27 above.)

29() In which one of these groups is your total household income?

- (1) Under \$20,000, (2) \$20,000 to \$40,000 (3) \$40,000 or more
 (0) no answer.

30() Do you have an automobile available in your household?

- (1) Yes, (2) No, (3) Don't know or no answer.

31() How often did you use the Duluth city bus system in the past 12 months?

- (1) 24 or more days, (2) 1 to 23 days, (3) did not use the bus, (4) no answer.

32() How many times each month do you shop in the Miller Mall area?

- (1) 1 through 5 times, (2) 6 through 10 times, (3) 11 or more times,
 (4) not at all, (5) no answer.

33() How many times each month do you shop in the downtown Duluth area? (Use units in 32)

METHODOLOGY

The Duluth Spirit Mountain skiing and tourism study of 1979 involved two separate samples, the first in the metropolitan area of Minneapolis and St. Paul, and the second in Duluth, Minnesota. All directory, residential telephones in Duluth had an equal chance to be included in the systematic random sample for that area. The same was true for the Minneapolis-St. Paul area.

In Duluth there were 1892 telephone calls attempted. There were 206 households which were qualified as skiing households and which were willing to respond to the telephone interview. There were 811 households which did not answer the telephone or were otherwise unavailable. A total of 542 households were not qualified, and 333 households refused to participate in the survey.

The qualification was that at least one person in the household must have skied at a ski resort during the previous skiing season.

Telephone interviews were conducted over a period of three weeks in late November and early December, 1979.

The data from the completed questionnaire were coded and transferred to provide computer input. The computer program used was the Statistical Package for the Social Sciences (second edition), published by McGraw Hill Book Company, and the usual tests for statistical significance were calculated.

The reader should be aware that at a confidence level of 94.45% (two standard deviations) on a simple yes and no question, using the sample of 206 households, a percentage such as 37.3 should be read plus or minus 7.5 points or from 29.8% to 44.8%. At a confidence level of

68.27% (one standard deviation) the same percentage, 37.3, should be read plus or minus 3.8 points. Other percentage reliability limits are available.