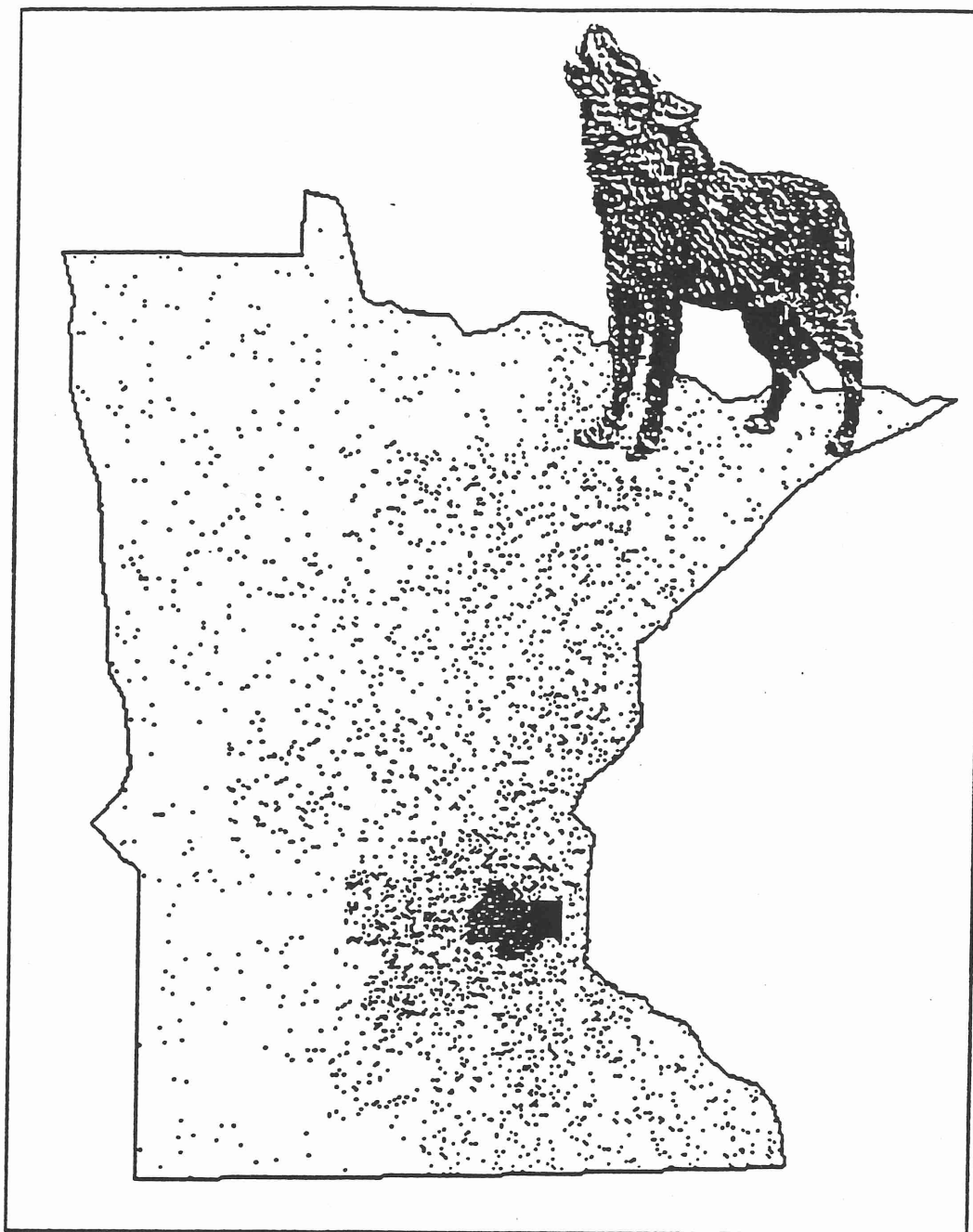


The Ecocenter as Tourist Attraction: Ely and the International Wolf Center

REC
NOV 21 2002
CURA



David T. Schaller
Department of Geography
University of Minnesota
Minneapolis, Minnesota


**TOURISM
 CENTER**
 Extension Service,
 University of Minnesota

1996

CURA
 Center for Urban and
 Regional Affairs

THE ECOCENTER AS TOURIST ATTRACTION:
ELY AND THE INTERNATIONAL WOLF CENTER

CONTENTS

INTRODUCTION AND EXECUTIVE SUMMARY.....1
NATURE TOURISM AND THE ECOCENTER.....2
METHODOLOGY.....3
TOURISM IN THE ELY AREA.....4
VISITORSHIP TO THE INTERNATIONAL WOLF CENTER..... 11
IMPACT OF THE INTERNATIONAL WOLF CENTER ON TOURISM AND THE
ECONOMY..... 14
CONCLUSION..... 18
APPENDIX: MAIN REASON FOR VISITING ELY, BY ACCOMMODATION 20
REFERENCES..... 21

CURA RESOURCE COLLECTION

**Center for Urban and Regional Affairs
University of Minnesota
330 Humphrey Center**

Introduction and Executive Summary

For many years, the city of Ely, Minnesota, has served as a gateway for a growing nature-based tourism industry focused on the Boundary Waters Canoe Area (BWCA) wilderness and neighboring areas. These lakes and forests continue to be the primary basis for Ely's tourist economy, but the 1993 opening of the International Wolf Center (IWC) has given the city a prominent environmental education facility. As an "ecocenter," the IWC's mission involves public education about wolf ecology, but it also functions as a tourist attraction. This study evaluates the IWC in this latter capacity; that is, what is its impact on Ely's tourism economy?

Visitorship numbers alone are of limited use. The IWC draws almost 50,000 visitors annually--roughly 20% to 30% of all tourists to Ely. Many of these visitors, however, are attracted to Ely for other reasons--primarily to enjoy the area's natural attractions. Is an ecocenter like the IWC wholly dependent on this existing tourism activity, or can it function successfully as a tourist attraction in its own right? By examining these questions and their implications, this study seeks to illuminate the role of such an ecocenter in an area's tourism and economy.

Because there is little existing research on tourism activity in Ely, it is necessary to investigate tourism throughout the area in general. Consequently, this study examines visitorship to the IWC within the larger context of tourism visitation to Ely. Tourists to Ely spend an average of \$300 per party or \$24 per person per day while in the area. This translates to total tourist expenditures somewhere between \$18 and \$27 million, and a rough economic impact of \$40 to \$60 million in the two-county area. The most common reasons for vacationing in Ely are fishing and canoeing, each cited by almost one-third of respondents. Fishermen and canoeists tend to travel longer distances to vacation in Ely compared to other tourists who come primarily to hike, camp, relax, visit with friends or relatives, or visit the IWC. Canoeists tend to have the highest levels of income and education; 42% have household incomes higher than \$60,000 and 39% have some graduate work. Fishermen are similar in terms of income but not education, with 34% having household incomes above \$60,000 but only 19% having graduate school experience. Taken as a whole, Ely tourists tend to have both higher incomes and higher levels of education compared to the Minnesota state population and to tourists throughout the state.

There appear to be few significant differences between tourists who visit the IWC and those who do not. Non-visitors are more likely to be canoeists and/or backcountry visitors, and to be vacationing in a larger group. Visitors have on average fewer children in their group. In most other respects, there were no important differences between the two groups. Attracting backcountry visitors to the IWC may continue to be a challenge, but tourists staying at resorts, campgrounds, and motels are all strong candidates for visiting.

Probably the most striking discovery from this study involves the magnitude of the International Wolf Center's appeal as a tourist attraction. Some 24% of visitors to the Wolf Center reported that the IWC had a great influence on their decision to vacation in Ely. This percentage corresponds to about 11,000 tourists whom the IWC is largely responsible for bringing to the Ely area. The majority of these tourists appear not to be regular Ely tourists. However, having been introduced to the area by the Wolf Center, they may decide to return in the future for a longer vacation. In this way, the IWC may be enlarging Ely's "tourist pool."

Although IWC-influenced tourists tend to travel shorter distances to visit Ely, spend fewer nights in Ely, and spend less money compared to the broad spectrum of Ely tourists, their economic impact is by no means inconsequential. Input-output economic analysis estimates that increased tourism attributable to the IWC has generated as many as 37 new jobs and about \$1.2 million, or 2.2 times the initial tourist expenditures, in the two country region. The IWC's economic impact is not limited to increased tourism expenditures, however. The Wolf Center itself plays a role in the regional economy by hiring employees, purchasing maintenance and heating supplies, and buying books and apparel from local merchants for resale in the gift shop. The total estimated economic impact of the IWC's operations is about \$1.5 million dollars, twice the IWC's operating budget, and as many as 29 new jobs. All in all, the International Wolf

Center is associated with about \$3 million in annual economic activity and as many as 66 new jobs in the region.

Nature Tourism and the Ecocenter

Since 1950, tourism has rapidly grown as an economic activity, and it will soon be the world's largest industry. (Whelan 1991:4). In recent years, increasing numbers of tourists have sought vacations in which they can explore and enjoy wilderness areas. Little attention, however, has been paid to a phenomenon following in the wake of increasing public interest in the environment--the growth of "ecocenters." Though similar in many ways to visitors' centers at national parks, ecocenters usually focus on a particular animal species for which the area is known. They typically are located in a rural town adjacent to a popular nature or wilderness reserve and may be considered important factors in the development of a tourism base for the economy (Lewis 1995). In addition to the IWC, examples of such ecocenters include the International Crane Foundation in Baraboo, Wisconsin; the Sigurd Olson Institute's Loon Project in Ashland, Wisconsin; and the National Bighorn Sheep Interpretive Center in Wyoming. In Minnesota, there are also proposals for a North American Bear Center and a White-tailed Deer Center.

Little is known, however, about the role such ecocenters play in regional tourism. Several scholars have examined the role of heritage centers in local economies (Johnson and Thomas 1992, Hall and McArthur 1993), but these centers are clearly major attractions in their own right. Ecocenters, on the other hand, are more likely secondary attractions, relying to a great extent upon the touristic appeal of the primary attractions--typically a nearby park or nature reserve. Cassells and Valentine (1990) have proposed a tripartite typology for nature tourism analysis in which tourist activities are either dependent on, enhanced by, or incidental to their natural setting. Modifying this typology offers a useful means to evaluate the appeal of an ecocenter as either dependent on its proximity to a nature-based attraction, enhanced by such proximity, or incidental to it. The degree of this dependence also highlights the extent to which the ecocenter itself contributes to tourism visitation in the area.

Location is clearly a critical factor in an ecocenter's relationship with the nearby wilderness area. When choosing the site for its ecocenter in the mid 1980s, the Committee for an International Wolf Center considered several places, both in Ely and on Minnesota's North Shore. Though both areas are gateways to the BWCA, the North Shore is closer to the Twin Cities and attracts significantly greater numbers of tourists year-round (Minnesota Department of Tourism 1994). The matter provoked a good deal of debate among concerned parties (Feasibility Report 1987). After weighing various criteria including proximity to wolves and wilderness, site features, community support and tourism potential, the Committee selected Ely (Committee for an International Wolf Center 1988).

In the early 1990s, the IWC constructed its new facility on a hill several miles east of downtown Ely. Also located at the site is the U.S. Forest Service's Kawishiwi Wilderness Permit Station and a U.S. Customs Office. Adjacent to the IWC is a 1.25 acre fenced enclosure, where the resident pack of four wolves live. An observation window in the Wolf Center allows visitors to watch the wolves throughout the day. Within its 17,000 square feet is a 6,000 square foot exhibit, "Wolves and Humans," donated by the Science Museum of Minnesota, a small theater, a gift shop, and office space. Other activities for visitors include naturalist-led walks, evening wolf howls, and weekend educational programs. Admission in 1995 was \$4.00 for adults and \$2.50 for senior citizens and children.

The Wolf Center has gained considerable publicity in the regional and national media. However, early projections of 113,000 visitors annually have not materialized. In 1995, only 50,000 of the estimated 160,000 to 250,000 tourists to Ely visited the ecocenter. Elsewhere in rural Minnesota, of course, the economic impact of 50,000 visitors to an ecocenter would be considerable. In an existing tourist destination like Ely, such an impact is more difficult to estimate, since these visitors may have vacationed in the area whether or not the IWC existed.

Only after the Wolf Center's dependence on its environs is known, however, can its economic impact on the regional economy be assessed.

Methodology

In order to examine the relationships among tourists' demographic and socioeconomic characteristics, motivations and behavior, a stratified random sample of visitors to Ely and the IWC was surveyed. For the purposes of this study, Ely tourists were divided into two groups: those who *do* visit the IWC and those who do *not*. Thus, about half of the total sample was surveyed at the IWC; the other half consisted of Ely tourists who were not visiting the IWC on this vacation. Respondents were selected in a random stratified sample based on type of vacation (using lodging as an indicator) and season.¹ The research instrument was a self-administered questionnaire. Some 862 tourists were sampled in all for a 95% confidence level and 5% margin of error for each population. IWC visitors were intercepted as they left the building; non-visitors were surveyed in downtown Ely and at resorts, campgrounds and parking lots at BWCA entry points. Respondents were offered a copy of the IWC's *International Wolf* magazine as an incentive to participate in the survey. The response rate was 90%.

Once the surveying was completed, a third sample was created of "All Ely Tourists." To ensure that this was a representative sample, control questions had been asked of IWC visitors intercepted at sites other than the IWC; these results indicated that 30% of all Ely tourists visited the Wolf Center. Therefore, the entire "non-visitor" sample (438 respondents) was added to a stratified random sample of 203 respondents from the "IWC-visitors" sample, creating an "All Ely Tourists" sample consisting of two-thirds non-visitors and one-third visitors.

Tourist visitation to Ely and the IWC is concentrated in the summer, especially July and August, though a small spike appears in February and March. Tourists were sampled proportionately during three survey periods in warm months--mid May (7% of total sample), early June (12%), late July (62%) and late September (11%)--and one in February (8%).

Data from the survey was used to estimate the economic impact of the IWC. IMPLAN, the economic model used in this study, is an input-output model developed by the U.S. Forest Service and currently employed by the U.S. Army Corps of Engineers and the University of Minnesota Extension Service, among others. IMPLAN estimates the ripple effects which follow an economic "shock" to the regional economy (in this case, St. Louis and Lake counties), such as have resulted from the opening of the IWC. Estimated economic impacts take three forms: direct effects (e.g., tourists stop for dinner at a downtown restaurant); indirect effects (the restaurant must buy more walleye from local fishermen); and induced effects (a waitress at the restaurant uses her tips to buy mukluks from a local shop). These impacts can be described in terms of economic output of a given business or industry, or in terms of new jobs (full-time or part-time) created.

Like all models, IMPLAN simplifies the great complexity of the actual economy to make estimates about economic relationships and impacts. For example, IMPLAN uses a sectoral model of the economy which does not have a clear category for the IWC. The Wolf Center, then, was placed in a rather broad economic sector which includes museums and zoos as well as other non-profit organizations such as political associations. This sector's diverse nature makes it difficult to be certain how accurately its assumptions about regional sales and purchases reflect those of the IWC itself.

¹ The stratification scheme was based on lodging tax data. It was devised in consultation with the Ely Chamber of Commerce and consisted of the following breakdown by lodging: 36% backcountry, 44% resort, 11% motel/B&B, and 12% campground. Tourists using other types of lodging such as private cabins or homes of friends or family, as well as day trippers, were not included in this original stratification, since no numbers were available upon which to base estimates.

Tourism in the Ely Area

In order to understand the role of the International Wolf Center in Ely tourism, we must first have a general picture of tourism in the area. This section offers both this necessary exposition as well as a look at some details of tourism visitation. The main areas of focus are crude economic impacts, visitor socioeconomic characteristics, and vacation behavior.

Tourism is clearly a dominant economic and social activity in the Ely area, though competing estimates of the number of tourists to visit Ely annually make it difficult even to approximate its economic impact. The Ely Chamber of Commerce estimates 250,000 visitors a year, while estimates derived from this study range around 160,000.² (This latter figure, however, does not include cabin owners who spend more than one month per year in the area.) If, as the survey indicates, tourists spend an average of \$110 during their stay, total tourist expenditures range between \$18 million and \$27 million. The IMPLAN input-output model indicates a multiplier of about 2.2 for tourism-related activities. For St. Louis and Lake counties, then, a crude estimate of total regional effects generated by tourism might range from \$40 to \$60 million.

As noted previously, Ely's main tourist attractions are the area's lakes and forests. The main activities which draw tourists to the area are fishing, canoeing, and camping (Table 1). Other reasons for visiting Ely include hiking, visiting the IWC, and, in the winter, cross-country skiing and snowmobiling.

Table 1.--Main Reason for Visiting Ely
All Ely Tourists
n=641

Fishing	30%
Canoeing	30%
Camping	9%
Hiking	5%
IWC	4%
Relaxing/Being with family or friends	5%
Winter Sports	7%
Other*	10%

*Includes shopping, sightseeing, etc.

The economic impact a tourist may have on her destination area depends in large part on where she chooses to sleep. Resorts charge an average of \$60 to \$65 per night for a cabin or room, most motels charge about \$50 to \$55, and campgrounds charge between \$8 and \$20 per night. Sleeping in the backcountry costs visitors nothing. The choice a tourist makes for lodging is, in turn, affected in part by her reason for visiting Ely. A look at the two main activities which draw tourists to Ely reveals this clearly (Table 2). Respondents who cited fishing as their main reason for visiting Ely were most likely to stay at a lake resort, while the majority of canoeists stayed in the backcountry.

These results would suggest that fishermen have a much greater economic impact on the area than do canoeists, since they must pay more for their lodging. Indeed, fishing parties spend twice as much in the area as do canoeing parties (Table 3). Nevertheless, fishermen account for only 43% of all tourist expenditures in the Ely area, compared to 34% for canoeists.

²Two methods of estimation were used to determine these figures.

1) Survey results indicate that about 30% of all Ely tourists visit the IWC. Since 48,000 people visited the IWC in 1995, total Ely tourists would number 160,000.

2) About 30% of all Ely tourists spent the majority of their vacation in the BWCA backcountry. According to U.S. Forest Service records, about 12,200 overnight paddle permits, with an average group size of four, were granted in the Ely area. Thus, if 49,000 overnight visitors to the backcountry represent 30% of all tourists, total Ely tourists would then number 163,000.

Table 2.--Type of Lodging According to Type of Tourist

Type of Accommodation	Fishermen (217)	Canoeists (209)
Resort	39%	11%
Backcountry	13%	59%
Campground	17%	11%
Private Cabin	13%	5%
Motel/B&B	6%	7%
Day Trip	8%	4%
Home of friend/relative	4%	2%

This difference is smaller than might be expected, partly because nearly 30% of canoeists cite motels, B&Bs or campgrounds as their main type of lodging. Also, many canoeists who camp in the backcountry may also rent a room or cabin before or after their backcountry trip. Among backcountry campers (not strictly canoeists), 36% said they spent at least one night in a motel, B&B or resort in the Ely area, and another 17% said they stayed in a campground in addition to their time in the backcountry. The average stay at these lodgings was 1.5 nights.

Table 3.--Tourist Expenditures by Type of Tourist

	Median expenditures per person per day	Median group expenditures	Percentage of all tourist expenditures
Fishermen (217)	\$25	\$500	43%
Canoeists (209)	\$16	\$250	34%
Campers (92)	\$13	\$100	5%
Hikers (44)	\$20	\$118	4%
Other* (86)	--	--	14%
All Ely Tourists	\$24	\$300	--

*Skiers, snowmobilers, tourists in Ely to relax, or to see family, friends or the IWC.

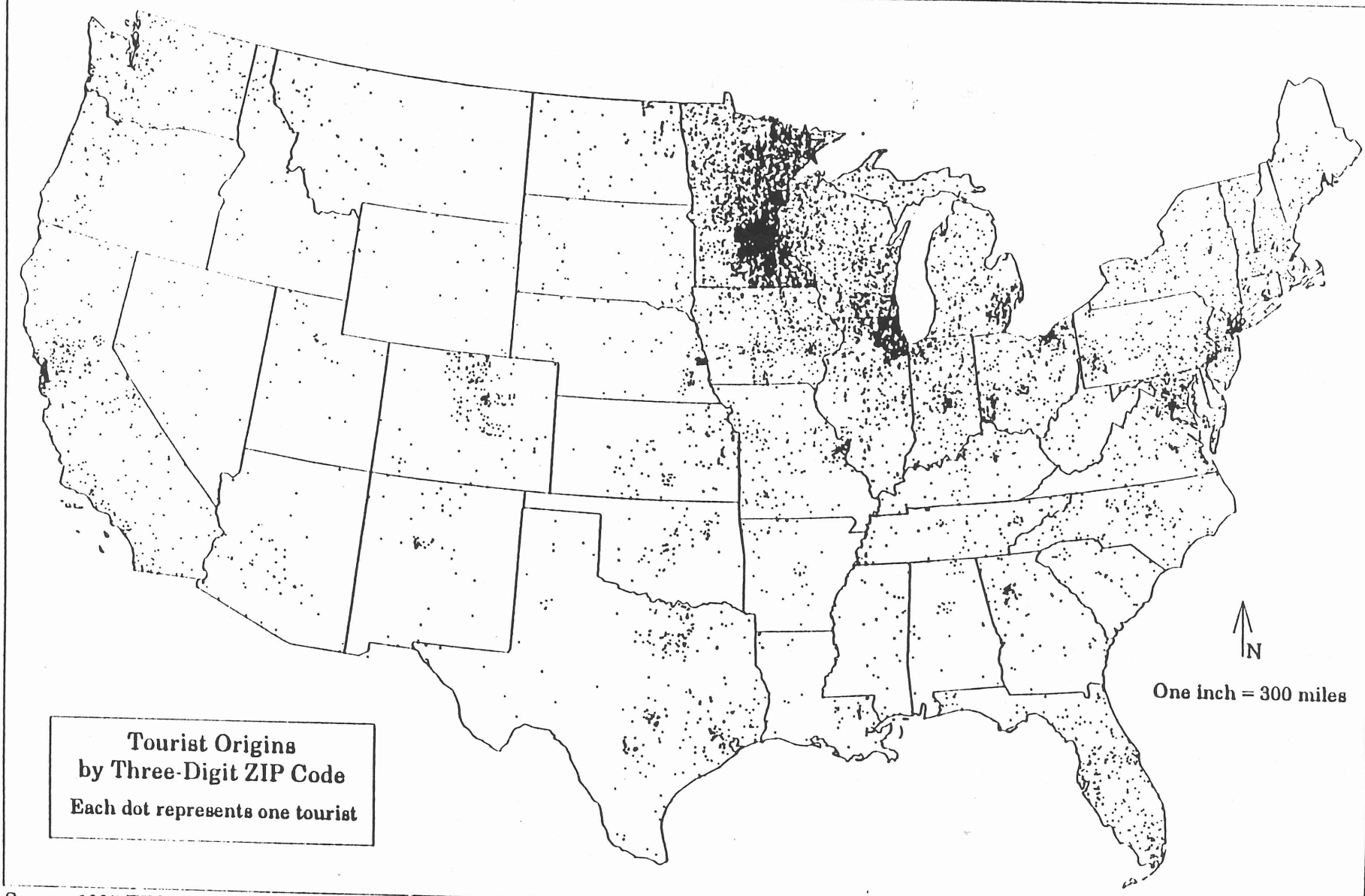
The majority (59%) of Ely tourists are Minnesota residents, and almost half (47%) of all tourists traveled less than 300 miles to visit Ely. Over 28% of all tourists came from the Twin Cities metropolitan area. However, tourists also came from all parts of the United States, and from several foreign countries as well, including Germany and Australia. Figure 1 displays tourist origins.³ Clearly, Ely is predominantly a regional attraction. About half of all tourists represented here are from Minnesota. The nearby states of Iowa, Wisconsin, and northern Illinois are the sources for another large proportion of tourists.

Despite the regional nature of visitation, Ely is also a national destination. Every state including Alaska and Hawaii (though not shown here) is represented, and there are several notable concentrations, such as Colorado's Front Range, in areas more than 1000 miles away. Texas and Florida are surprisingly well represented, perhaps by retirees, either traveling the country in recreational vehicles or visiting family in Minnesota.

Although the map indicates that high percentages of tourists come from urban areas, this may merely be due to higher population densities in those areas. A map which normalizes the data by population is necessary to show whether higher *percentages* of tourists come from certain areas (Figure 2). Such a map shows that the strength of tourist source areas decreases with distance, though virtually all of Minnesota remains very well represented. It is interesting

³ These data are taken from the IWC's Visitors' Register. While neither a random sample nor representing all Ely tourists, it is a useful dataset to use. The distribution pattern closely resembles that of survey data and, with nearly 15,000 data points--far more than the survey--reveals much more comprehensive information--an important attribute for geographic data.

Figure 1.--Tourist Origins



9

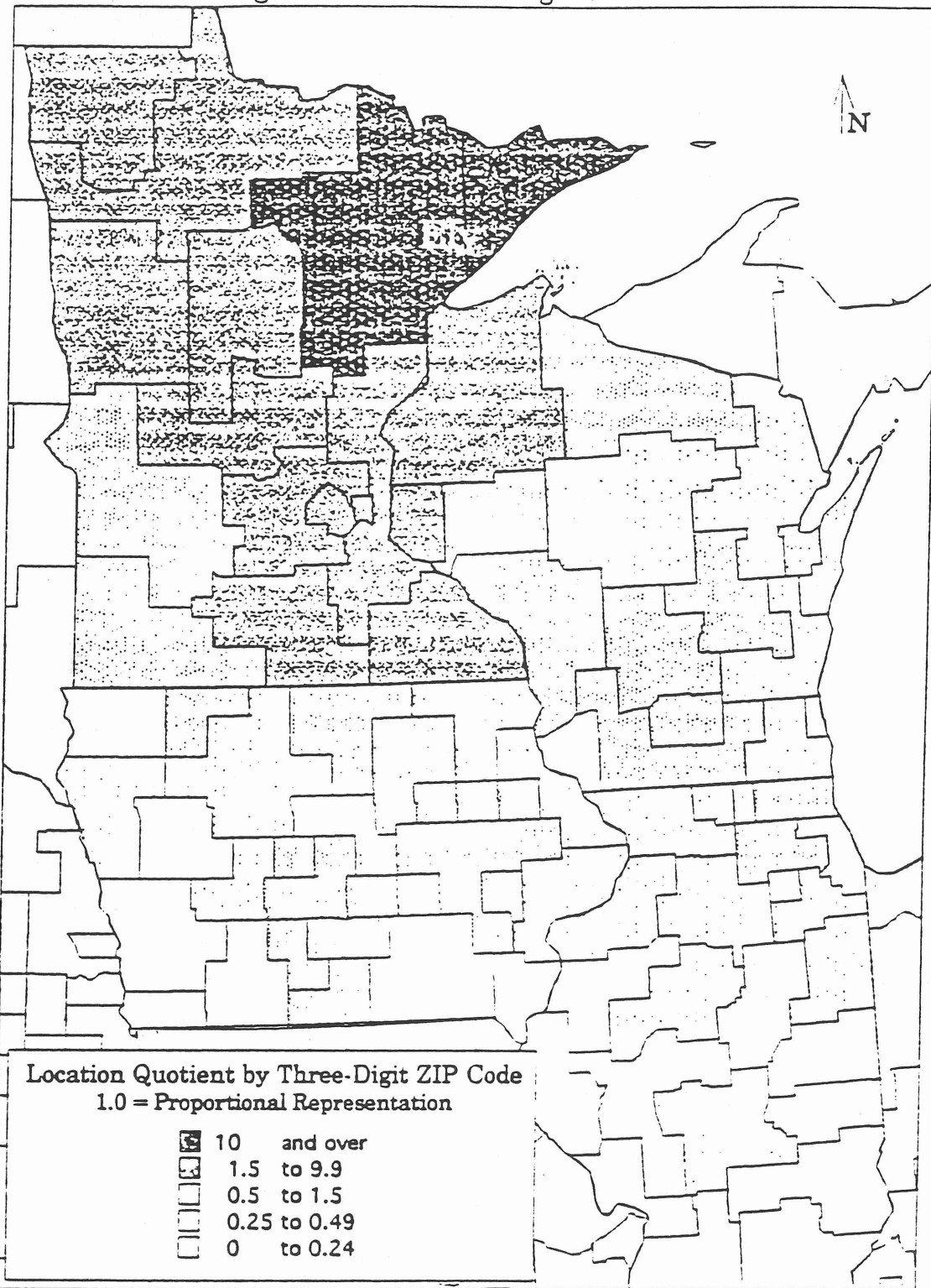
**Tourist Origins
by Three-Digit ZIP Code**
Each dot represents one tourist



One inch = 300 miles

Source: 1995 IWC Visitor Register
About 14,800 names
Dots are randomly distributed within three-digit ZIP Code areas

Figure 2.--Tourist Origins: Midwest



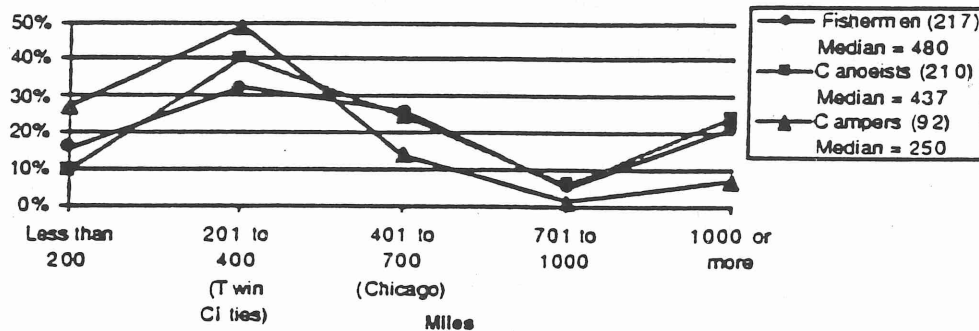
Source: 1995 IWC Visitor Register
About 8600 names

$$\text{Location Quotient} = \frac{\text{Area's share of regional tourists}}{\text{Area's share of regional population}}$$

to compare the high proportions of Ely tourists from the central cities of Minneapolis and St. Paul with low representation from central Chicago. The difference probably reflects socio-economic differences between the two urban populations which affect recreation choices. In contrast, Chicago's suburbs are very well represented, especially considering the distance tourists must travel.

The median distance traveled for all Ely tourists was 375 miles, but fishermen and canoeists were apt to come from more distant places while campers (and hikers, with a median distance traveled of 255 miles) were more likely to live closer to Ely (Figure 3). These differences may point to the BWCA's reputation as a premier destination for fishing and canoeing. Indeed, nearly one-quarter of fishermen and canoeists traveled more than 1000 miles to visit Ely, testifying to the area's national stature.

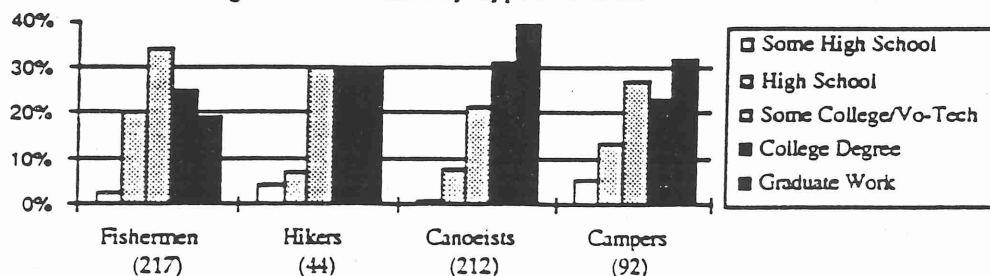
Figure 3.--Distance Traveled to Ely By Type of Tourist



Similarly, tourists who stayed at resorts and in the backcountry tended to travel greater distances to visit the Ely area. The median distance traveled by resort guests was 550 miles, and for backcountry visitors it was 425 miles--both much higher than the median of 375 miles for all visitors. Perhaps as a result of these longer distances traveled, fishermen and canoeists tended to stay longer than did other tourists once in the Ely area. The median length of stay for all tourists was five nights, with fishermen and canoeists staying for five and six nights, respectively, while campers and hikers stayed for a median of only three nights.

Socioeconomic profiles also vary depending on the type of vacation taken. The most notable differences are in education (Figure 4). Among the four groups analyzed, fishermen tend to have lower levels of education than do the others. Canoeists have the highest education levels, with 39% indicating graduate school work, compared to 19% for fishermen and 30% and 32% for hikers and campers, respectively. Fishermen, however, more closely resemble profiles for the population of Minnesota as a whole than do other kinds of tourists. About 22% of state residents 25 years and older have a college degree (1990 Census of Population and Housing:88); for fishermen the figure is twice that (44%), while for canoeists it is more than three times that percentage (70%).

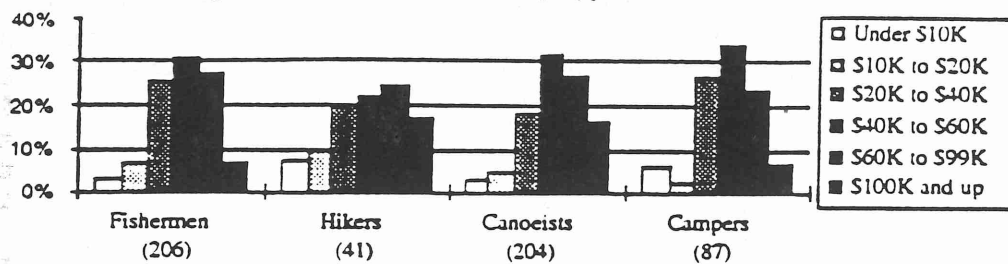
Figure 4.--Education by Type of Tourist



Note that higher education does not fully translate into higher incomes (Figure 5). While only 19% of fishermen had undertaken graduate work, 34% had household incomes of \$60,000

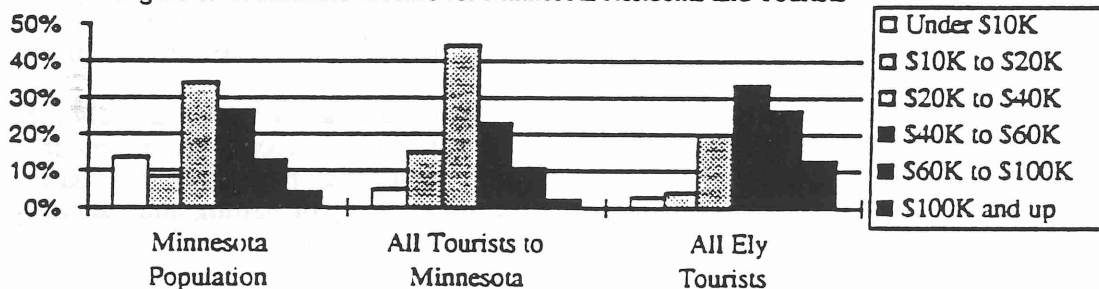
or more (almost a 1:2 ratio); compare this to canoeists, of whom 39% had graduate school experience, yet only 42% had household incomes \$60,000 or more (nearly a 1:1 ratio).

Figure 5.--Household Income by Type of Tourist



All of these groups, however, have substantially higher income profiles than does the state-wide population (Figure 6). Almost 45% of state households have incomes between \$20,000 and \$40,000 annually, and less than 45% have annual household incomes greater than \$40,000 (1990 Census of Population:78). In contrast, among fishermen and campers, 65% have household incomes of more than \$40,000, and for canoeists the figure is 74%. Clearly, Ely tourists have higher incomes as well as higher levels of education than does the state population as a whole. Furthermore, Ely tourists have higher income levels than do tourists throughout the state (residents and non-residents). These higher incomes, then, are associated not just with tourists, but with tourists to Ely.

Figure 6.--Household Income for Minnesota Residents and Tourists



Sources: 1990 Census of Population, Social and Economic Characteristics:78
Minnesota Office of Tourism Customer Profile

Tourists are also distinguished according to the types of lodging at which they stay (Table 4). Since each lodging type best accommodates certain activities, some of the results of this type of analysis are not surprising. For example, 63% of those visiting the backcountry cited canoeing as their main activity. Resorts clearly cater to fishermen, while motels/B&Bs were the only type of lodging where winter sports were cited as the top activity by more than 10% of guests. (Complete results are in the Appendix.)

Table 4.--Most Popular Activities by Type of Lodging

Lodging Type	Most Popular Activity	Second Most Popular Activity
Resort (216)	Fishing (52%)	Canoeing (15%)
Backcountry (191)	Canoeing (63%)	Fishing/Camping (12% each)
Campground (69)	Fishing (33%)	Camping (30%)
Motel/B&B (71)	Winter sports (19%)	IWC (17%)
Private Cabin (40)	Fishing (36%)	Canoeing (17%)
Guests of Friends/Family (14)	Fishing (27%)	Relaxing/Socializing (20%)
Day Trip (33)	Fishing (51%)	Canoeing (8%)

Unlike many vacation destinations of national repute, such as Yellowstone National Park (Cooperative Extension Service 1989:2), Ely and the BWCA rely to a great extent on repeat business. Half (51%) of all Ely tourists sampled reported a previous visit to the area since June 1993.⁴ Canoeists (54%) and fishermen (53%) were most likely to have recently visited Ely, compared to 47% for hikers and only 33% for campers. These differences are all the more interesting considering that canoeists and fishermen are more likely to travel longer distances to visit Ely. Indeed, many of those tourists who had traveled 600 miles or more were Ely regulars, with 45% reporting a recent previous visit.

In the same vein, resort guests (56%) and backcountry visitors (56%) were likely to have recently visited the area. Only tourists staying at private cabins (66%) showed a higher return rate, though even their rate is not as high as might be expected. Tourists staying at motels/B&Bs (43%) and with family or friends (33%) appeared least likely to be Ely regulars.

Of all the approaches to the question of repeat visits, a seasonal analysis shows the most pronounced differences. Among summer tourists, 49% had been to Ely in the preceding two years, but the proportion rises to 73% for winter visitors. Since Ely draws from a smaller "tourism shed" in the winter, it seems logical that people living relatively close would be more likely to have visited the area in the recent past.

Visitorship to the International Wolf Center

Although the International Wolf Center appears infrequently in the preceding analysis of tourist motivations and behavior, its role in Ely tourism should not be underestimated. According to the results of this study, a full third of all tourists to Ely visit the IWC. Furthermore, 40% of those surveyed who did not visit the IWC *had* visited it on a previous trip to Ely. (Forty percent of IWC visitors had also visited it on a previous trip to Ely.) Assuming these results accurately reflect the total tourist population, 65% of all Ely tourists in 1995 had toured the IWC at some point. Clearly, the IWC is a major tourist attraction in Ely. This section will examine IWC visitors in detail and compare tourists who visit the IWC to those who do not, to see whether there are any significant differences between the two groups.

Probably the most striking discovery from this study involves the magnitude of the IWC's appeal as a tourist attraction. Nearly one-fourth (24%) of visitors reported that the IWC had a great influence on their decision to vacation in Ely. Another 27% of respondents said the IWC had some influence on their choice of destination. Thus, about half (51%) of IWC visitors said that the presence of the IWC had played some role in their decision to vacation in Ely. The Wolf Center's strong showing here is buttressed by responses ranking the top three activities which drew IWC respondents to the Ely area. The Wolf Center tied with canoeing for second place, with 19% of respondents citing it as their main reason for visiting Ely. Another 14% listed it as the second most important reason for their visit to Ely, and 15% listed it third. The 24% of respondents who may be classified as "IWC-influenced" tourists will be examined in more depth in the last section of this paper. The remainder of this section will focus on differences between IWC visitors and tourists who did not visit the IWC.

Two-thirds of all IWC visitors had heard about the IWC before making plans to vacation in Ely; by far the most common way to have heard about it was from friends or relatives (35%), followed by a newspaper article (13%). In fact, neither the mass media (24%) nor tourist brochures (23%) were comparable to friends or relatives as the source of information about the IWC.

Motivations for visiting the IWC were strongly related to the center's educational mission. The great majority of visitors (84%) said they had a special interest in wolves or in nature, and 53% said they had come to the IWC in order to learn something new. (Respondents were allowed to give two reasons for their visit.) Less than one-third (28%) described their visit to the IWC simply as a "good family outing." Interestingly, only 5% of respondents gave as a reason that they had needed to stop anyway at the BWCA ranger station (housed within the IWC) for information or backcountry permits. It very much appears, then, that the appeal of the

⁴ This date marks the opening of the IWC as well as representing a convenient benchmark to identify Ely "regulars."

IWC lies in its focus on wolves. Similar ecocenters focusing on animals with less of a popular mystique may have difficulty attracting similar numbers of visitors.

On the whole, IWC visitors were highly satisfied with their visit; over half (58%) said that the Wolf Center had met their expectations "very well," and only 13% gave it average or poor marks. This satisfaction carries over into their likelihood of visiting the IWC again. Over half (56%) said they would return to the IWC if vacationing in Ely again, and another 39% said they might. Only 5% said they would not. However, judging by responses to an open-ended question, some of this return business would depend on whether or not the IWC had new things to do and see. For at least 18% of these respondents, a return visit would hinge on new or expanded exhibits. On the other hand, existing programs at the IWC are not very well known. Only 33% of respondents, who were leaving the Wolf Center at the time they were questioned, knew that the IWC offered weekend programs and college courses. These programs, along with the daytime and evening activities currently offered, could be promoted in lieu of costly facility expansion.

Among respondents who did not visit the IWC, only 18% said that they had not heard of the Wolf Center prior to being surveyed. As noted above, 40% of non-visitors had previously visited the IWC. Of these respondents, 33% gave this earlier visit as the reason for not visiting it on this vacation, and almost 90% of them said they might return on a future trip to Ely. Among those who had never gone to the IWC, almost as many (87%) said they might visit it on a future vacation. Only 6% of all non-visitors said they were not especially interested in wolves and thus unlikely ever to visit the IWC.

It appears, then, that there is very little resistance to the *idea* of visiting the IWC; what is lacking for most non-visitors is time and money. Over half (60%) of non-visitors gave "time constraints" as their reason for not visiting the IWC during their stay in Ely. Only 11% cited the admission cost. (Any analysis of this last result assumes that all non-visitors knew what admission to the IWC cost; it is possible that more respondents would have cited cost as a reason if they had more information about the matter.)

Differences between IWC visitors and Ely tourists who have never visited the Wolf Center appear to be minimal across a range of behavioral and socioeconomic categories (Table 7).⁵ Significant differences appear only in one category--the number of adults in the party. It might seem logical that tourists with children are more likely to visit the IWC, but there were virtually no differences in this regard.

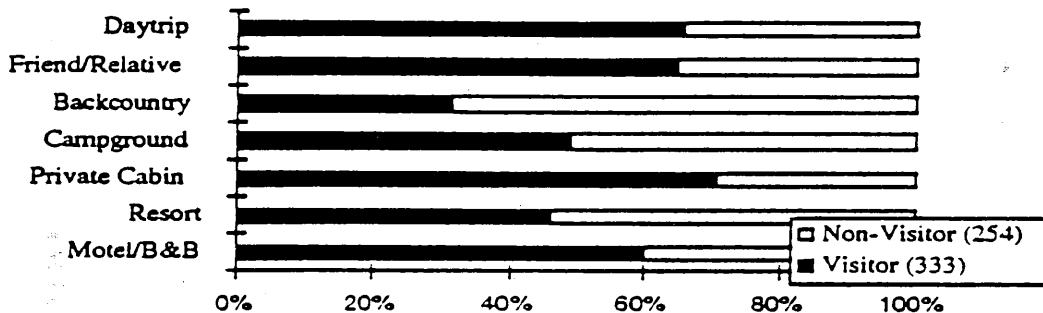
These differences are not fully explained by a look at lodging choices (Figure 7). Non-visitors were more likely than visitors to favor the traditional lodging choices of lake resorts and, in particular, backcountry campsites. Many backcountry visitors probably prefer to spend as much of their vacation as possible in the BWCA, leaving little time for a stop at the IWC. The dramatic difference in this category suggests the difficulty in luring these tourists to the IWC. Resort guests, on the other hand, may be easier to attract. Many resort-based respondents remarked casually during the survey that they had thought about visiting the IWC but simply ran out of time. It may well be possible to increase visitation among this group, particularly by spreading the word about the IWC's day and evening programs.

⁵ For this table and those that follow, only those non-visitors are included who had never been to the IWC. The aim of this analysis is to identify differences between visitors and non-visitors in order to identify any behavioral or socioeconomic differences among them. Including tourists who visited the IWC in a previous year would weaken any conclusions, since it was mere chance that this study occurred in 1995 rather than 1994 or 1993. For similar reasons, only those IWC visitors are included who were not in Ely primarily on account of the Wolf Center, since the two groups report significantly different vacation behavior. Removing these respondents from the data will help clarify possible differences within the largest pool of potential visitors--those tourists who are already vacationing in Ely.

Table 7.--Differences in IWC Visitor and Non-Visitor Vacation Behavior⁶
Means and Significance Levels

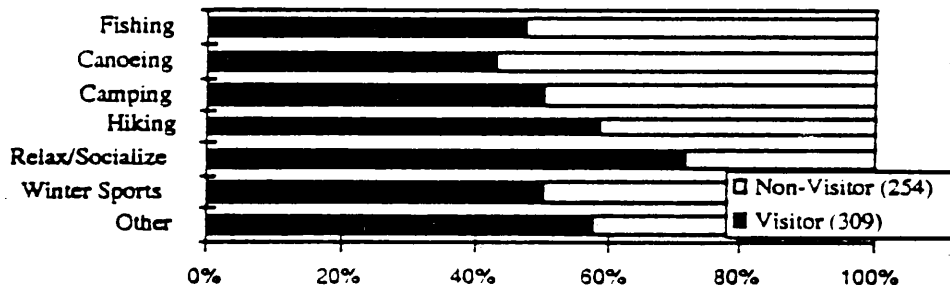
	1995/96 IWC Visitors (333)	Never Visited IWC (254)	Significant Difference?
Distance traveled to Ely	596	560	No (p=.55)
Number of nights in Ely	3.8	4.4	No (p=.06)
Dollars spent in Ely	\$412	\$535	No (p=.06)
Age of respondent	42	41	No (p=.45)
Number of adults in party	2.8	3.2	Yes (p=.05)
Number of children in party	1.0	1.0	No (p=.97)

Figure 7.--Lodging Differences:
IWC Visitors and Non-Visitors



In a similar vein, the most notable difference between visitors and non-visitors in terms of vacation activities was among canoeists (Figure 8). Among visitors, 24% of respondents were vacationing in Ely primarily to canoe, compared to 32% for non-visitors. The explanation again lies probably in canoeists' desire to maximize their time in the BWCA. For all other activities, however, differences between the two groups were small.

Figure 8.--Differences in Main Activity:
IWC Visitors and Non-Visitors



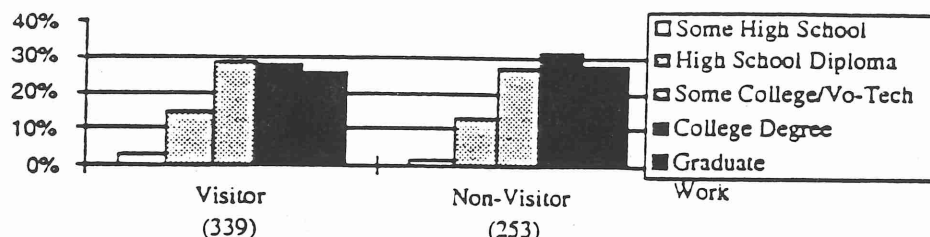
In other aspects as well, differences between visitors and non-visitors seem minimal. Non-visitors may have slightly higher levels of education, but these are not statistically significant (chi-square p of .78).⁷ They probably stem from the tendency of canoeists and

⁶ Significance based on t -test of difference of means, with a significance level of .05. Distant outliers were removed prior to testing.

⁷ Since chi-square is meant to test the independence of a sample from the greater population, a second test was done comparing IWC visitors (sample) to Ely tourists as a whole (population); the p in this case was virtually the same-- .77.)

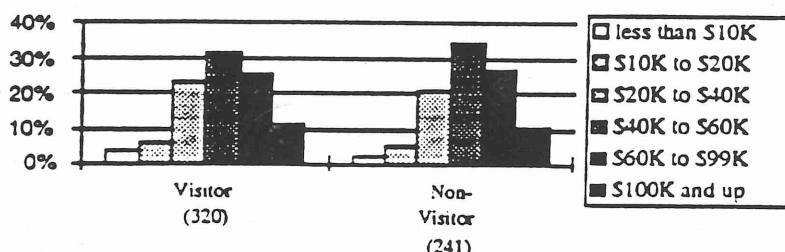
backcountry visitors to have graduate school experience (Figure 9). In general, IWC-visitors do not have disproportionately higher or lower levels of education than non-visitors.

Figure 9.--Education Differences:
Visitors and Non-Visitors



Similarly, statistical testing indicates that there are no significant differences in income levels (chi-square p of .3, and of .53 for IWC visitors compared to all Ely tourists) (Figure 10).

Figure 10.--Household Income Differences:
Visitors and Non-Visitors



In terms of almost all of the variables included in this study, the IWC is currently attracting a typical cross-section of Ely tourists. As noted in the previous chapter, Ely tourists do tend to have higher levels of education and income than do either tourists state-wide or the general state population. Within this population of Ely tourists, however, there is no evidence to indicate that the Wolf Center is of interest only to certain kinds of tourists, nor that it has already thoroughly tapped its potential market. The challenge now is to reach the remaining 44% of Ely tourists who have never been to the Wolf Center. More importantly, perhaps, for its long-term success, the IWC must offer sufficient new or changing attractions to draw repeat visitors.

Impact of the International Wolf Center on Tourism and the Economy

For some tourists, the International Wolf Center is the main reason for choosing Ely as their vacation destination. As noted above, these tourists number 24% of all visitors to the IWC, or about 11,000 people. These figures include tourists who said that the Wolf Center either had a great influence on their decision to visit Ely, and those who listed the IWC as the top reason for their trip. (Overlap between the two groups, of course, was substantial.) The percentage of IWC visitors who fell into these groups never dipped below 23% in the summer and rose to 30% in the spring and winter. Although these tourists represent only five to seven percent of everyone who visited Ely in 1995, they still had a notable impact on the area. This section examines in depth several behavioral and socioeconomic aspects of these visitors before estimating their economic impact.

Not all of these respondents, of course, are necessarily in Ely just to visit the IWC. In some cases, campers, hikers, canoeists or fishermen who have a range of possible destinations in northern Minnesota may decide on Ely because they are also interested in visiting the IWC. For example, while the large majority reported that the Wolf Center was the main reason for their visit, one-fourth of respondents listed another activity such as fishing or camping (Table 8).

Table 8.--Main Reasons for Vacation: IWC-Influenced Tourists
n=106

	First Reason	Second Reason
International Wolf Center	76%	19%
Fishing	7%	10%
Canoeing	3%	8%
Hiking	3%	16%
Camping	7%	10%
Relaxing/Family or Friends	2%	7%
Winter Sports	0%	10%
Other	2%	20%

These tourists were drawn to the Wolf Center for similar reasons as were IWC visitors as a whole. The great majority (84%) said they had a special interest in wolves and nature, and 53% said they wanted to learn something new. Only 14%, however, said they came in order to attend a special program at the IWC--fewer than might be hoped considering the range of programs offered. While more respondents from this group knew about the IWC's educational programs and courses (45% compared to 33% for all IWC visitors), more than half remained unaware of them even after their visit. The ways in which this group first learned of the IWC are similar to those for IWC visitors as a whole. Thirty percent heard about it from friends or relatives, 17% from a newspaper article, 12% from the IWC's brochure, 9% from either a magazine article or a Minnesota tourist brochure, and 8% from a television show.

These visitors were, however, more satisfied with their visit than were IWC visitors in general. More than two-thirds (68%) reported that the IWC met their expectations "very well," and 75% said they would return to the IWC if visiting Ely again, compared to 59% and 56%, respectively, for all IWC visitors. While these visitors might have higher expectations of the Wolf Center, since they have planned their trip around it, they apparently also found it more rewarding, perhaps due to their heightened interest in what the IWC has to offer.

Unlike other IWC visitors, these visitors who came to Ely primarily on account of the IWC differ markedly from Ely tourists as a whole (Table 9). IWC-influenced visitors tend to travel shorter distances, spend fewer nights in Ely, and spend less money compared to the broad spectrum of Ely tourists. None of this is unexpected. Somewhat surprising is that IWC-influenced visitors are less likely to have children in their group. Apparently the Wolf Center does not greatly attract families looking for something to entertain the children.

Table 9.--Differences Between IWC-Influenced Tourists and All Ely Tourists
Means and Significance Levels

	All Ely Tourists (630)	IWC-Influenced Visitors (105)	Significant Difference?
Distance traveled to Ely	550	451	Yes (p=.04)
Number of nights in Ely	4.8	1.9	Yes (p=.00)
Dollars spent in Ely	\$581	\$185	Yes (p=.00)
Age of respondent	42	41	No (p=.42)
Number of adults in party	3.6	2.3	Yes (p=.00)
Number of children in party	1.5	0.8	Yes (p=.00)

Although IWC-influenced visitors come from a smaller "tourism shed" than do Ely visitors as a whole, the average distance traveled still seems remarkably high, considering that few visitors spend more than a day at the Wolf Center. This is partially due to visitors who were vacationing in northern Minnesota--in Duluth or on the North Shore, for example--and who traveled to Ely primarily to visit the IWC. While they may have traveled 600 miles from their home, only the last 50 or 100 miles were on account of the Wolf Center. The survey, however, was not designed to identify these respondents.

The majority (54%) of all IWC-influenced tourists were from Minnesota, a percentage slightly less than that for all Ely tourists. About another third were from the nearby states of Wisconsin, Iowa and Illinois. As with fishermen and canoeists, these tourists come from both urban and rural areas, though notably none are from central Chicago.

The survey data show additional differences in matters of education and income (Figures 11, 12). IWC-influenced tourists have somewhat lower levels of education, though the difference is not statistically significant (chi-square p of .2). In household income, however, the difference is significant (chi-square p = .00). IWC-influenced tourists tend to have lower incomes compared to all Ely tourists. The Wolf Center appears to appeal most to middle-income people with some degree of higher education.

Figure 11.--Education Differences:
All Ely Tourists and IWC-Influenced Tol

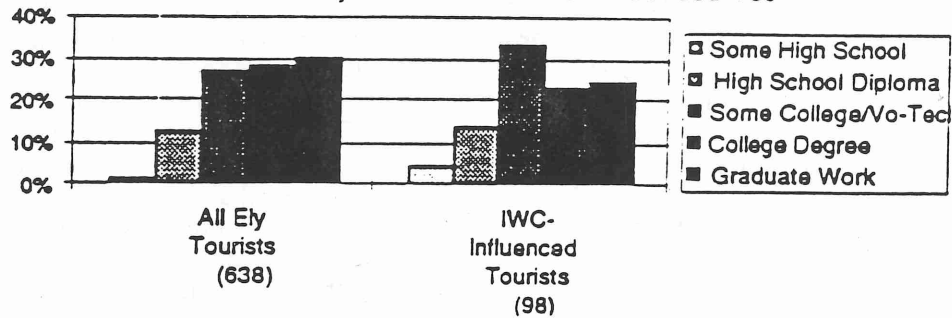
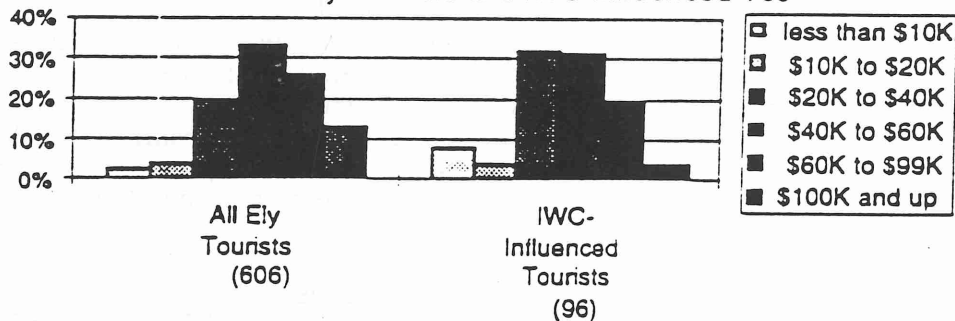


Figure 12.--Household Income Differences:
All Ely Tourists and IWC-Influenced Tol



Although relatively few tourists visit Ely primarily on account of the Wolf Center, their impact is by no means inconsequential. For one, these tourists are much more likely to be unfamiliar with the Ely area. While 50% of all Ely tourists had previously visited the area since 1993, this was the case for only 26% of IWC-influenced tourists. These tourists, then, appear not to be regular Ely vacationers. Although they are usually in the area only for a day or two, it is possible that these tourists will remember Ely when planning a future vacation. By drawing this "new blood" to Ely, the IWC may well be enlarging the pool of future tourists.

While in the Ely area, these tourists also have a notable economic impact. With average group expenditures of \$185, in 1995 they spent an estimated \$655,000 in the Ely area. Another \$70,000 was spent by the 20% of IWC visitors who said they extended their vacation, usually by only a few hours but in a few cases overnight, in order to visit the Wolf Center. Total tourist expenditures which are directly attributable to the presence of the IWC in Ely amount to about \$725,000. This is, of course, a small fraction of total expenditures by all tourists, but it remains a

substantial sum. Furthermore, it reflects only the first round of spending; an input-output analysis can estimate the additional effects of these dollars as they ripple through the economy.⁸

Tourist spending was divided into various economic sectors such as lodging, restaurants, and retail shops and is associated with the creation of as many as 21 new jobs, primarily in tourist-oriented businesses.⁹ Furthermore, the ripple effects of this increased tourism affect other sectors of the regional economy, creating another 16 jobs. The increase in total industrial output in the region amounts to \$1.2 million, indicating a multiplier effect of 2.2 (Table 10).

Table 10.--Impacts of Increased Tourism on Regional Employment
(Number of New Jobs)

	Direct	Indirect	Induced	Total
TOURISM-RELATED BUSINESSES				
Tourism services and organizations*	0	0	0.3	0.3
Lodging	8.3	0	0.3	8.6
Eating (Restaurants and Groceries)	12.1	0	2.5	14.6
Retail	0.8	0	1.9	2.7
OTHER INDUSTRIES				
Agriculture	0	0	0	0
Mining/Manufacturing/Construction	0	0.2	0.4	0.6
Trade/Transportation	0.4	0.3	2.0	2.7
FIRE**/Services	0	0.5	6.5	7.0
Government	0	0.1	0.7	0.8
TOTAL	21.6	1.1	14.6	37.3

*Includes backcountry guides, gear outfitters, as well as museums such as the IWC

**Finance, Insurance, and Real Estate

The IWC's economic impact is not limited to increased tourism expenditures, however. The Wolf Center itself plays a role in the regional economy by hiring employees, purchasing maintenance and heating supplies, and buying books and apparel from local merchants for resale in the gift shop. It employs 13 people year-round and another 15 in the summer. With an annual operating budget (excluding expenses associated with the Minneapolis branch office) of about \$735,000, the Wolf Center certainly counts as an economic entity in the region (Table 11).

The model's estimate of the IWC's direct impact on employment, about 14 new jobs, is close to the actual number of people employed by the IWC in Ely (11 full-time equivalent positions), since IMPLAN's estimates are not necessarily all full-time jobs. Over time, an additional 15 jobs are created in the region as a result of input purchases by the IWC, as well as by household spending attributable to these employees. The total industrial output resulting from the establishment of the IWC facility in Ely amounts to \$1.5 million dollars, or twice the IWC's operating budget of approximately \$735,000.

All in all, as much as \$3 million in annual economic activity can be traced back to the IWC (Table 12). While most of the new economic activity is concentrated in tourism-related businesses, new jobs are also created in other sectors such as trade and services. All these figures, of course, are estimates, and their accuracy is limited by the assumptions of the IMPLAN model itself and those taken in this particular analysis.

These impacts are considerable, and they may be just the beginning. Over time, the Wolf Center's profile may continue to rise in the Upper Midwest region and become even more of a draw for tourists. Projections indicate that, if the number of people who visit Ely because of the IWC were to double to 22,000, another 30 jobs might be created within the region, with an increase of \$900,000 in economic output and \$420,000 in employee compensation. While this remains a tiny portion of the regional economy, it is still remarkable. That such a small tourist

⁸ Tourist expenditures were reduced by \$175,000 to account for spending at the IWC itself, either on admission or at the gift shop, since these expenditures are included later as part of the IWC's revenues.

⁹ Spending profiles varied depending on the type of lodging, but the final breakdown is as follows: lodging 40%, restaurants 48%, retail 4%, groceries 4%, and gasoline and service stations 4%.

attraction as the IWC can be linked to the creation of as many as 66 jobs in the region indicates the potent role that tourism plays in rural economies.

Table 11.--Impact of IWC Operations on Regional Employment
(Number of New Jobs)

	Direct	Indirect	Induced	Total
<u>TOURISM-RELATED BUSINESSES</u>				
Tourism Services and Organizations*	14	0	.2	14.2
Lodging	0	.7	.2	.9
Eating (Restaurants and Groceries)	0	0	2.0	2.0
Retail	0	0	1.5	1.5
<u>OTHER INDUSTRIES</u>				
Agriculture	0	0	0	0
Mining/Manufacturing/Construction	0	.5	.3	.8
Trade/Transportation	0	.6	1.6	2.2
FIRE**/Services	0	1.8	5.0	6.8
Government	0	.2	.2	.4
TOTAL	14	3.8	11	28.8

*Includes backcountry guides, gear outfitters, as well as museums such as the IWC

**Finance, Insurance, and Real Estate

Table 12.--Combined Impact of IWC Operations and Increased Tourism:
Total Effects

	Total Industrial Output (\$000s)	Employee Compensation (\$000s)	New Jobs
<u>TOURISM-RELATED BUSINESSES</u>			
Tourism Services and Organizations*	\$ 756.4	\$ 197.2	14.2
Lodging	236.6	111.8	9.5
Eating (Restaurants and Groceries)	397.6	152.7	16.75
Retail	124.8	50.2	4.22
<u>OTHER INDUSTRIES</u>			
Agriculture	\$ 6.4	\$ 1.3	0.2
Mining/Manufacturing/Construction	152.8	42.0	1.39
Trade/Transportation	370.3	141.5	4.9
FIRE**/Services	878.1	273.1	13.6
Government	63.6	41.9	1.2
TOTAL	\$3,006.6	\$1,011.7	66.3

*Includes backcountry guides, camps, and gear outfitters, as well as museums and zoos such as the IWC

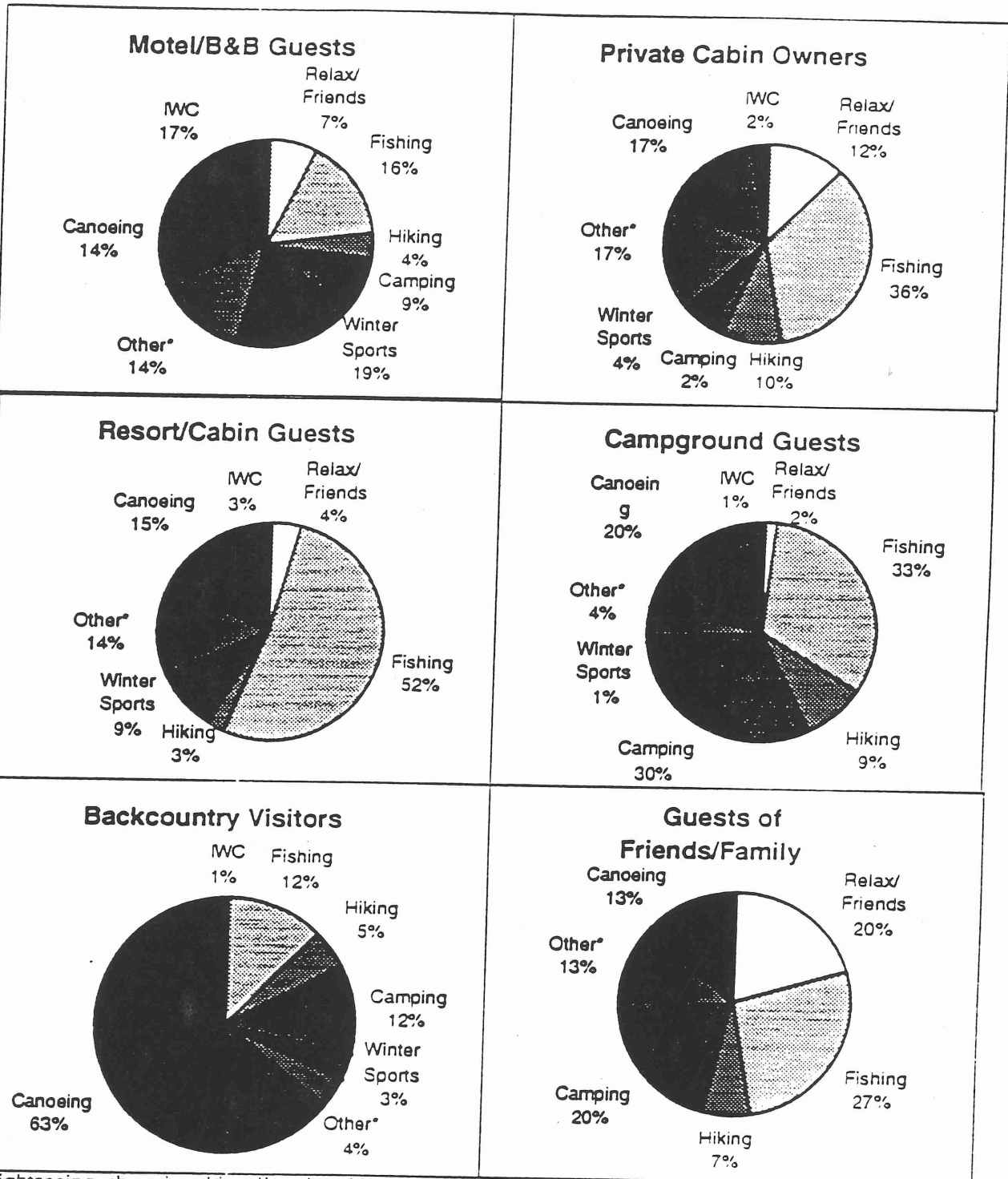
**Finance, Insurance, and Real Estate

Conclusion

The International Wolf Center in Ely, Minnesota, functions both as an environmental education facility and as a tourist attraction. Based on this study of the role of the IWC in tourism to the area, it appears that the Wolf Center relies to a large extent, but not entirely, on its proximity to the BWCA and nearby lakes and forests. While the IWC could not continue operating for long without business from Ely's existing base of tourists, it has carved itself a surprisingly large niche as a tourist attraction in its own right. About 24% of all IWC visitors report that the Wolf Center had a great influence on their decision to visit Ely. While most of these visitors stay in the area only a day or two, they are likely to be new to the area and may decide to return on a future vacation. These visitors have also had a substantial economic impact; along with effects from the IWC's operations, they can be linked to the creation of as many as 66 new jobs in the region.

The International Wolf Center is an appealing tourist destination which attracts both casual tourists and people who are willing to make the trip to Ely primarily to learn more about wolves. There is a strong existing base of tourists in Ely on which the IWC can draw for many years. though it should also make concerted efforts to become a regular stop for frequent Ely tourists. If it continues to serve as the primary attraction for a significant number of tourists, it will cement its role as a small but distinct contributor to the health of Ely's economy.

Appendix: Main Reason for Visiting Ely, By Accommodation



*sightseeing, shopping, bicycling, hunting, water sports, etc.

References

- Cassels, D.S., and P.S. Valentine. 1990. Recreation management issues in tropical rainforest. *Proceedings Institute of Tropical Rainforest Studies Workshop No. 1*. Townsville: James Cook University.
- Committee for an International Wolf Center. 1988. *Creating the International Wolf Center*.
- Cooperative Extension Service. 1989. *Jackson Hole Summer Visitor Profile 1987*. Laramie: Agricultural Extension Service, University of Wyoming.
- Feasibility Study. 1987. *Preliminary Report: International Wolf Center*.
- Johnson, P. and B. Thomas. 1992. *Tourism, Museums and the Local Economy*. Hants: Edward Elgar Publishing Ltd.
- Lewis, T. A. 1995. The town that cried sheep. *National Wildlife*, February/March:9-14.
- Minnesota Office of Tourism. 1994. *The Minnesota Office of Tourism's Customer Profile*.
- 1990 Census of Population. 1992. *General Population Characteristics: Minnesota*. Washington, D.C.: U.S. Department of Commerce.
- 1990 Census of Population. 1992. *Social and Economic Characteristics: Minnesota*. Washington, D.C.: U.S. Department of Commerce.
- 1990 Census of Population and Housing. 1992. *Summary Social, Economic and Housing Characteristics: Minnesota*. Washington, D.C.: U.S. Department of Commerce.
- Probst, D.B., ed. 1985. *Assessing the Economic Impacts of Recreation and Tourism*. Asheville, North Carolina: Southeastern Forest Experiment Station.
- Valentine, P.S. 1992. Nature-based tourism. In B. Weiler and C.M. Hall's *Special Interest Tourism*. Bellhaven: London, 105-128.
- Whelan, T. 1991. *Nature Tourism: Managing for the environment*. Washington, D.C.: Island Press.