# TRAILS DEMAND BASE DATA REPORT





## State Planning Agency

with the assistance of

## State Planning Agency Land Management Information Center

and

## Department of Natural Resources Office of Planning



MAY 1980

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DRAFT

# Trails Demand Base Data Report

## I. Background

In 1977, the Legislature created a variety of trails programs to be administered by several state agencies, and the Metropolitan Council. When it authorized these trail building programs, the Legislature directed SPA to "review and coordinate plans for trails acquisition and development and trail development grants . . ." in cooperation with Mn/DOT, DNR and Met Council. (M.S. 4.35) The respective agency heads responsible for trail programs decided that the best way to achieve a coordinated approach to trail planning is through the establishment of two inter-agency trails committees, at the Commissioner level and at the staff level. In September of 1978 the Commissioners of Natural Resources and Transportation and the Director of the State Planning Agency jointly signed an agreement establishing these committees. The Metropolitan Council was added shortly thereafter. At a staff-level committee meeting held in January, 1980, the establishment of a cooperative planning framework was identified as a priority.

A first step in cooperative planning is to develop a common data base. If all agencies use the same information on which to base their decisions then actions may be more consistent among the different agencies. The purpose of this report is to help build a common data base for trails.

## II. Overview

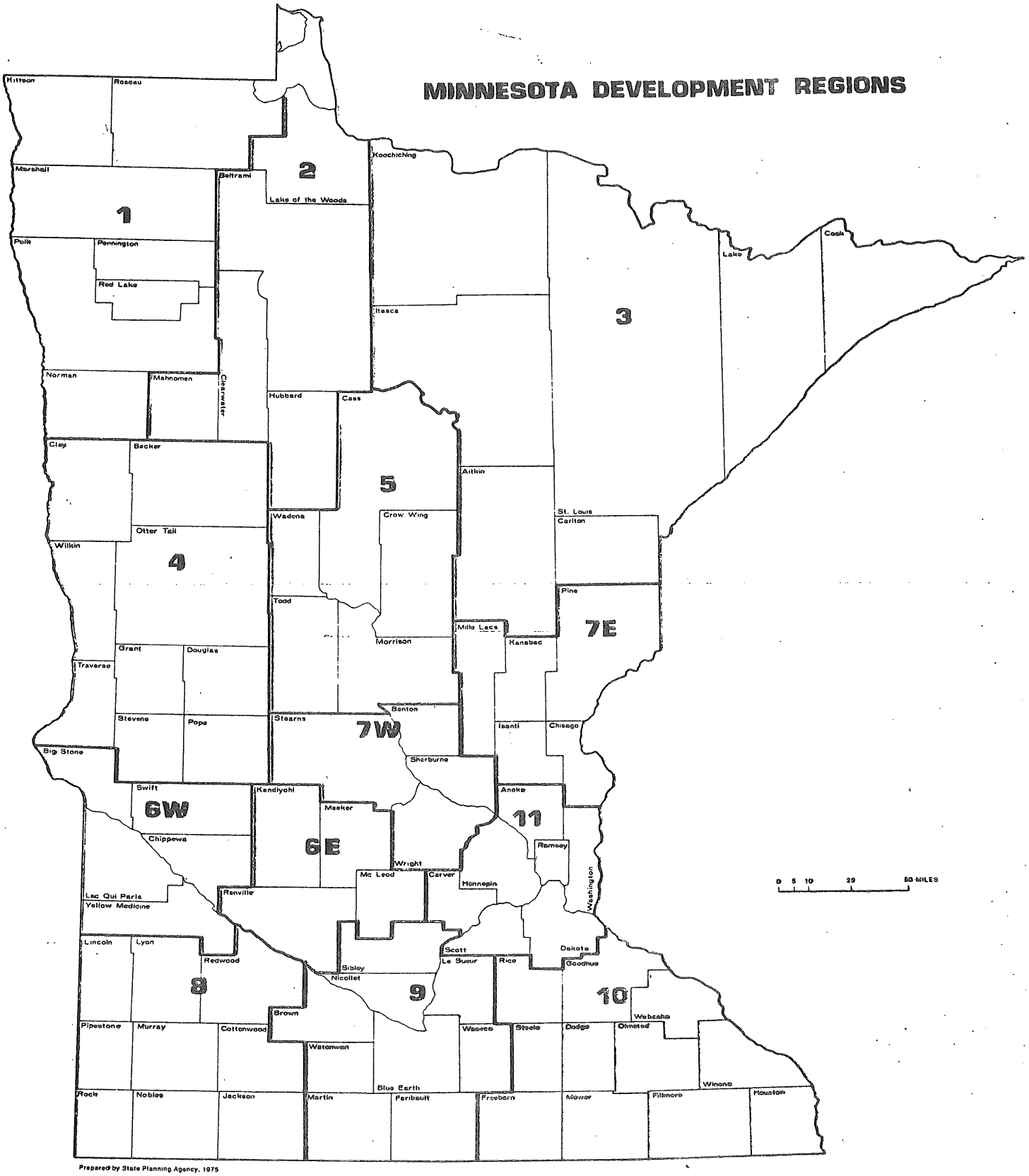
This report used a variety of sources of information. To establish demand for trails, the data from surveys conducted by the DNR for the State Comprehensive Outdoor Recreation Plan (SCORP) were used. In certain analyses, data from the State Demographer's Office were also used to help measure demand. To measure supply, DNR's trails inventory was used. In the Metropolitan Area, a trails inventory done by the Metro Council was used. As analysis of these data continue, much of the natural and physical resource data compiled at the Land Management Information Center (LMIC) will be used to refine these products. To date, however, no resource data has been used.

The following products are included in this report:

1. Maps showing distribution of use, for each trail activity, by county.
2. Maps comparing distribution of trail use (for each activity) to population, by county.
3. Maps showing use per trail mile, by county, for several activities.
4. Lists for each RDC showing to which counties people went to participate in different trails activities.

This paper will discuss the method used and major observations for each of these four products. A summary at the end of this report ties these products together. Readers who desire more detailed information on the SCORP Survey, either its purpose, method or findings, are urged to contact Bill Becker at the Department of Natural Resources, Bureau of Planning and Research, 612/296-3093.

# MINNESOTA DEVELOPMENT REGIONS




Prepared by State Planning Agency, 1975

SPA BASE MAP #3

## III. Overall Research Method

A. The principal source of information for this study is an outdoor recreation participation survey conducted by the Department of Natural Resources (DNR) as part of its planning effort. Specifically, the survey was done for the State Comprehensive Outdoor Recreation Plan (SCORP) completed in 1979. This survey asked questions about all types of outdoor recreation activities, not solely trails activities. This paper presents and analyzes participation data for snowmobiling, cross-country skiing, horseback riding, bicycling and hiking/backpacking. Other trails activities such as snowshoeing, and driving dirtbikes and four wheel drive vehicles are not discussed because the survey sample was not large enough to accurately portray user patterns.

B. The SCORP outdoor recreation participation files, for both winter and summer activities, were transferred onto the MLMIS (Minnesota Land Management Information System). During the survey, when respondents were called on the telephone and asked where they had participated in a particular activity, the replies were plotted on a statewide grid consisting of 10-square-mile cells. However, to relate the destination of users to actual political subdivisions, such as counties and townships, required using a MLMIS grid system based on township and section lines. Once the data were transferred to the MLMIS, it was much easier to conduct statistical analyses.

C. For each trail activity, the total number of participants going to each county was obtained from the SCORP file by use of a standard SPSS (Statistical Package for the Social Sciences) crosstabulation.

D. The SCORP Survey contacted 650 households in each region (with the exception of the metropolitan area where 3,000 households were surveyed.) The number of persons actually residing in each of the 650 households determined the number of persons who were reached in each region. The following table shows the number of people surveyed in each region.

Table 1

| Winter Survey | | Summer Survey | |
|---|---|---|---|
| 1 - 1,921 | 7W - 1,838 | 1 - 2,031 | 7W - 2,374 |
| 2 - 1,957 | 7E - 1,851 | 2 - 1,921 | 7E - 2,128 |
| 3 - 1,942 | 8 - 1,797 | 3 - 1,872 | 8 - 2,091 |
| 4 - 1,899 | 9 - 1,793 | 4 - 1,938 | 9 - 1,972 |
| 5 - 1,947 | 10 - 1,751 | 5 - 1,963 | 10 - 2,015 |
| 6W - 1,725 | metro - 6,432 | 6W - 2,054 | metro - 7,318 |
| 6E - 1,768 | | 6E - 1,964 | |

E. Although the sample size only varies slightly in the different regions, the population in each region is quite different. Consequently, each response in a region with fewer people (such as region 2 or 6W) represents far more actual users than would a response in a region with a large number of persons (such as region 3 or 10). It was necessary, therefore, to weight the raw data so that each figure would represent the same number of user occasions in each region. The following equation was used to weight the raw data:

$$\frac{\text{raw figure}}{X} = \frac{\text{sample size in region}}{\text{region's population*}}$$

Consequently, each response was multiplied by the expansion factor shown below. As can be seen, the expansion factor is much larger in those regions with a large population. All maps and tables use weighted data.

Table 2

| Winter Survey | | Summer Survey | |
|---|---|---|---|
| 1 - 51 | 7W - 116 | 1 - 48 | 7W - 90 |
| 2 - 32 | 7E - 51 | 2 - 33 | 7E - 45 |
| 3 - 176 | 8 - 78 | 3 - 182 | 8 - 67 |
| 4 - 104 | 9 - 122 | 4 - 102 | 9 - 111 |
| 5 - 65 | 10 - 230 | 5 - 65 | 10 - 200 |
| 6W - 36 | metro - 302 | 6W - 30 | metro - 266 |
| 6E - 59 | | 6E - 53 | |

F. The surveys were conducted during the winter of 1977-1978 and the summer of 1978. That winter was colder than normal and had approximately an average snowfall. However, much of the snow fell early in the winter increasing interest in winter sports. During the summer, traditional travel and recreation patterns were not greatly affected by weather. Also, there were no gasoline shortages during that summer to disrupt travel patterns.

## IV. Distribution of Trail Use by County

### A. Description and context

The following five maps show the relative frequency, by county, of where people participated in various trail activities. The different levels

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*1978 population estimate -- State Demographer's Office

of trail participation (very low trail use, very high trail use, etc.) are the same on each map. Because the levels used are the same on each map there is comparability. The parameters for the levels are:

level A - very low trail use - less than 0.2% of statewide participation in this activity occurs in this county.

level B - below average trail use - 0.3%-0.5% of statewide participation in this activity occurs in this county.

level C - near average trail use - 0.6%-1.3% of statewide participation in this activity occurs in this county.

level D - slightly above average trail use - 1.4%-4.9% of statewide participation in this activity occurs in this county.

level E - high trail use - 5.0%-19.9% of statewide participation in this activity occurs in this county.

level F - over 20% of statewide participation occurs in this county.

These distribution maps only show where a trail use occasion occurred. They do not reveal a user's point of origin (whether the user is a tourist or lives in the county). These maps also do not reveal anything conclusive about participation rates in each county. (One user may have participated in an activity 100 times or 100 users may have participated once.) The other products discussed in this report do analyze users' origins and frequency of participation.

B. Method

The number of user occasions by county was established through an SPSS crosstabulation, which yielded a raw count of trail use occasions by county. As described previously, the raw data were weighted to account for differences in population among RDCs. For analysis and mapping the percentage of statewide participation occurring in each county was calculated and used as the basis for the following maps.

Several sub-categories from DNR's SCORP Survey were combined to arrive at the categories of trail use shown below which were mapped. By combining sub-categories, some of which have very few survey records, a more accurate statewide picture of use patterns for a particular activity can be created.

1. The snowmobiling map combines the SCORP categories of:

-snowmobiling on-trail;
-snowmobiling off-trail;
-snowmobiling both on- and off-trail; and
-snowmobiling miscellaneous.

2. The cross-country skiing map combines:

-cross-country skiing on-trail;
-cross-country skiing off-trail;
-cross-country skiing on- and off-trail; and
-cross-country skiing miscellaneous.

3. The hiking map combines hiking and backpacking.

4. The bicycling map combines the SCORP categories or recreational bicycling and transportational bicycling.

5. The horseback riding map combines on-trail horseback riding and off-trail horseback riding.

Certain counties did not have any recorded occasions of certain trail uses. In each case these counties were grouped with the lowest level. It was felt that there was not a sufficiently large sample to distinguish between a county in the lowest level (where there may only have been one, two or three actual responses before expansion) and a county with no reported user occasions.

C. Observations

This series of maps represents data with limited analysis, therefore conclusions cannot be drawn. However, patterns of trail use are mapped, described and compared in the following sections of the paper. For every activity except horseback riding, Hennepin County has the highest number of trail use occasions.

For snowmobiling (Figure 1) the counties with the greatest concentration of use are Hennepin and Anoka. Other counties with high use are also in the Metro Area, including Ramsey; counties in the areas where snowmobiling is promoted as a tourist activity such as Crow Wing, St. Louis, Cass, Aitkin and Itasca; and other urban counties such as Blue Earth (Mankato) and Olmsted (Rochester). Counties with low snowmobiling activity form a band around the western and southern perimeter of the state. The lowest use is in southwestern Minnesota, where snow conditions are not as conducive to snowmobiling. Interestingly, there is very little snowmobiling in Lake or Cook Counties.

For cross-country skiing (Figure 2) Hennepin County has, by far, the greatest amount of use. Next highest are the other metropolitan area counties and St. Louis County (Duluth and the Iron Range Cities). The high level of skiing in St. Louis is probably more attributable to its large population than to the perceived suitability of its resources (forest) for skiing. The lowest level of skiing activity occurs in the agricultural areas of western and southern Minnesota. This is due, in part, to both a general lack of places to ski and a lack of interest in this activity. SCORP shows that in RDC 1 (northwest) 6.0% of the population wanted more skiing opportunities and in RDC 8 (southwest), 5.6% did. However in RDC 3 (northeast), and 11 (metro), the figures were 13.1% and 11.9% respectively.

Bicycling is spread across the state more evenly than any other trail activity. More bicycling occurs in Hennepin County than any other county. Most other urban counties are also high; Anoka, Dakota, Ramsey, Scott and Washington, but not Carver; Stearns (St. Cloud), St. Louis, Mower (Austin), Winona (Winona) and Olmsted. Generally, the counties with the lowest level of use correspond to the counties with low population. There is no apparent correlation between resource quality and intensity of bicycle use. For example, Cass, Cook, and Lake Counties, which are usually considered to be high amenity areas, fall into the level of lowest use.

# DISTRIBUTION OF STATEWIDE SNOWMOBILING

## ON AND OFF TRAIL USE

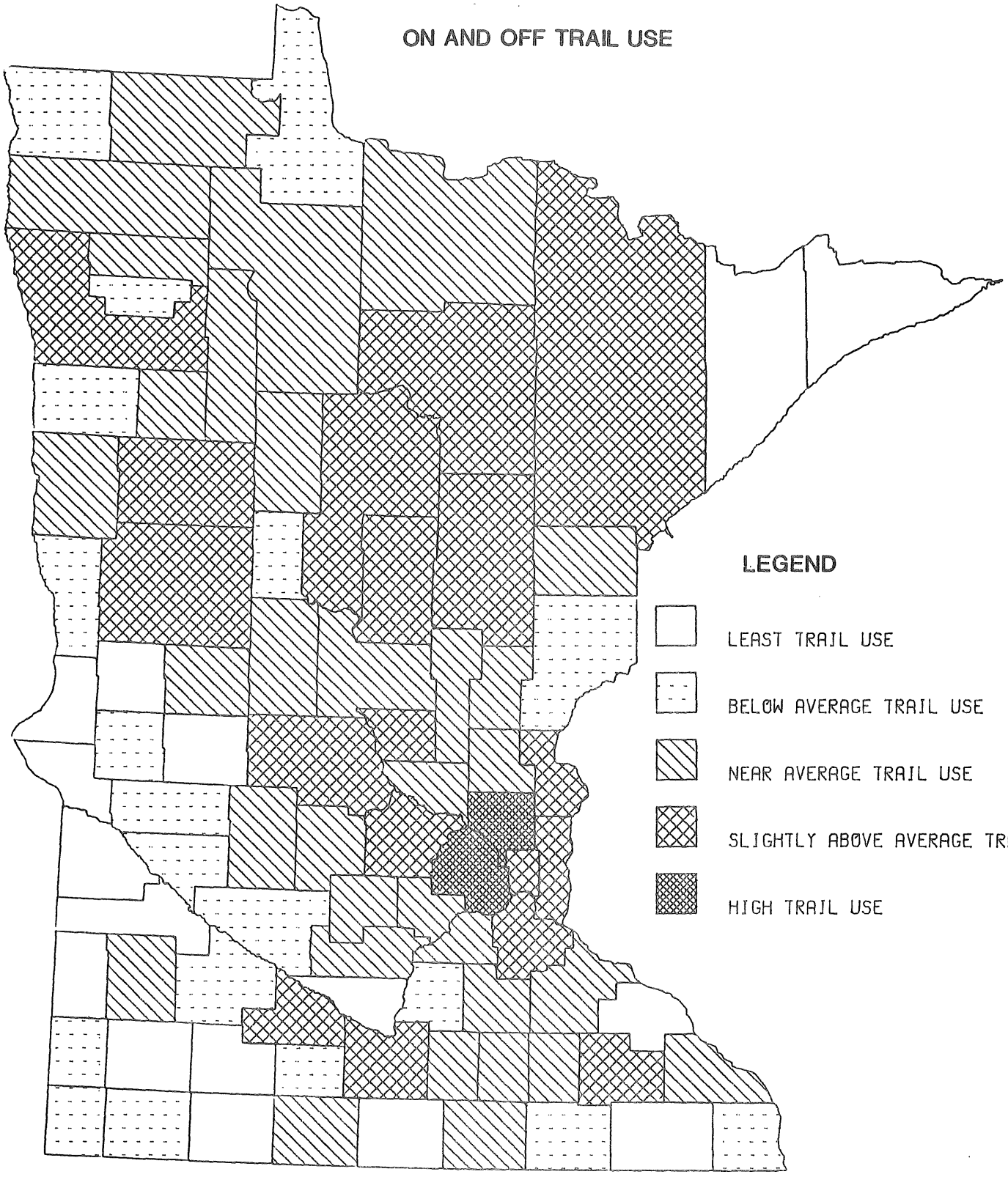



FIGURE 1

TRAILS DEMAND BASE DATA REPORT
STATE PLANNING AGENCY 1980

# DISTRIBUTION OF STATEWIDE CROSS-COUNTRY SKIING

## ON AND OFF TRAIL USE

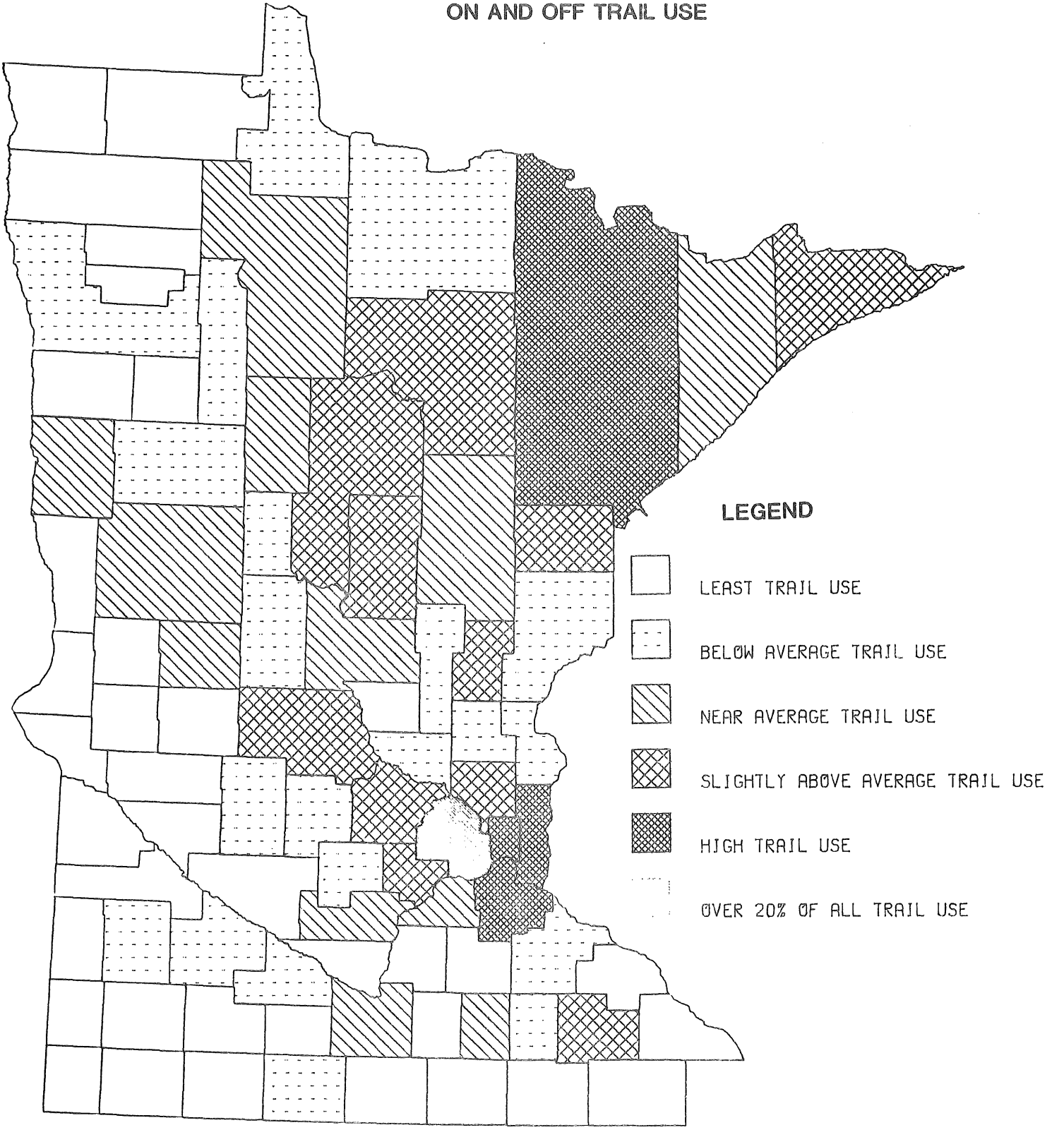



FIGURE 2

TRAILS DEMAND BASE DATA REPORT
STATE PLANNING AGENCY 1980

# DISTRIBUTION OF STATEWIDE BICYCLING

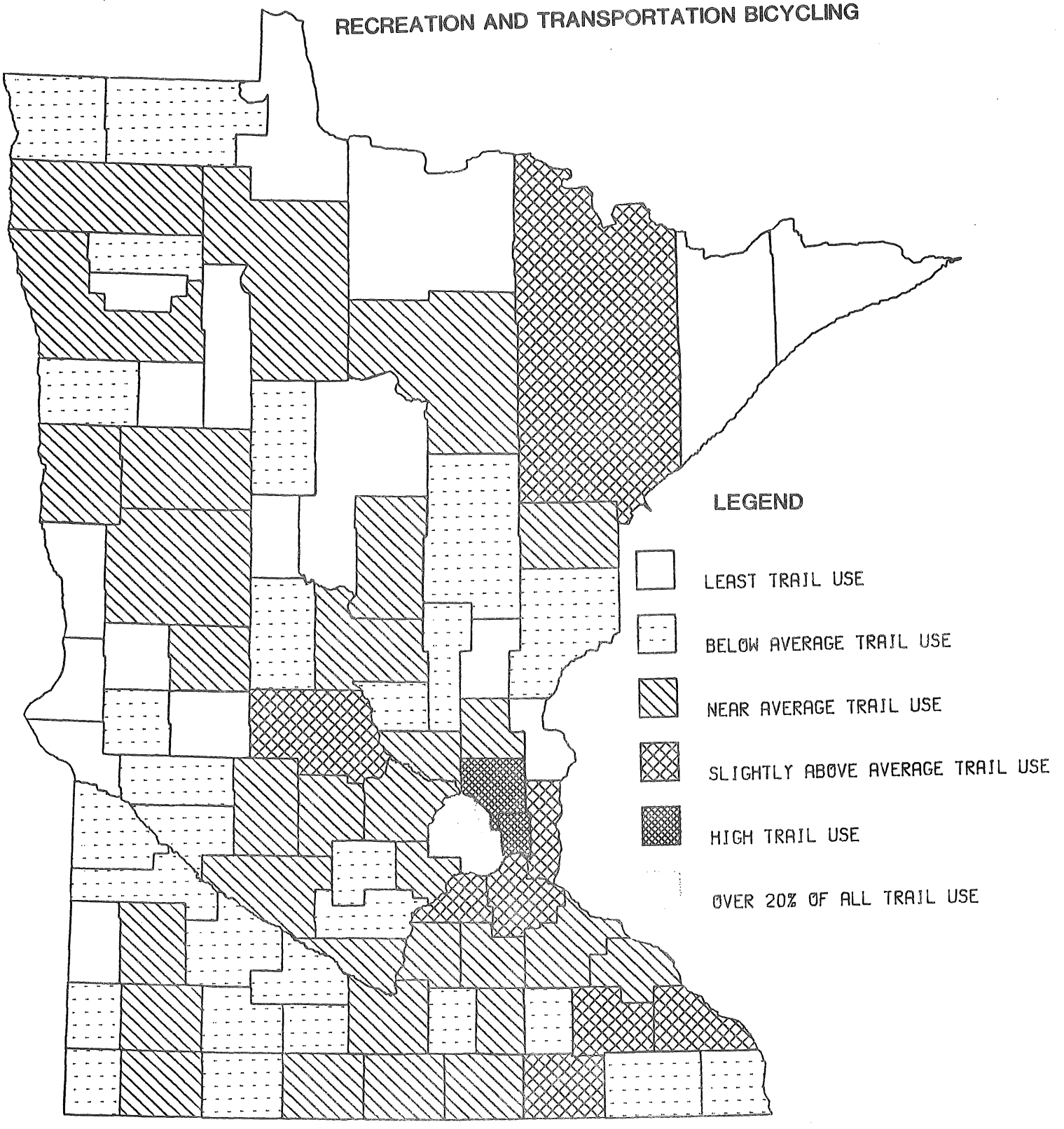



FIGURE 3

TRAILS DEMAND BASE DATA REPORT
STATE PLANNING AGENCY 1980

# DISTRIBUTION OF STATEWIDE HIKING AND BACKPACKING

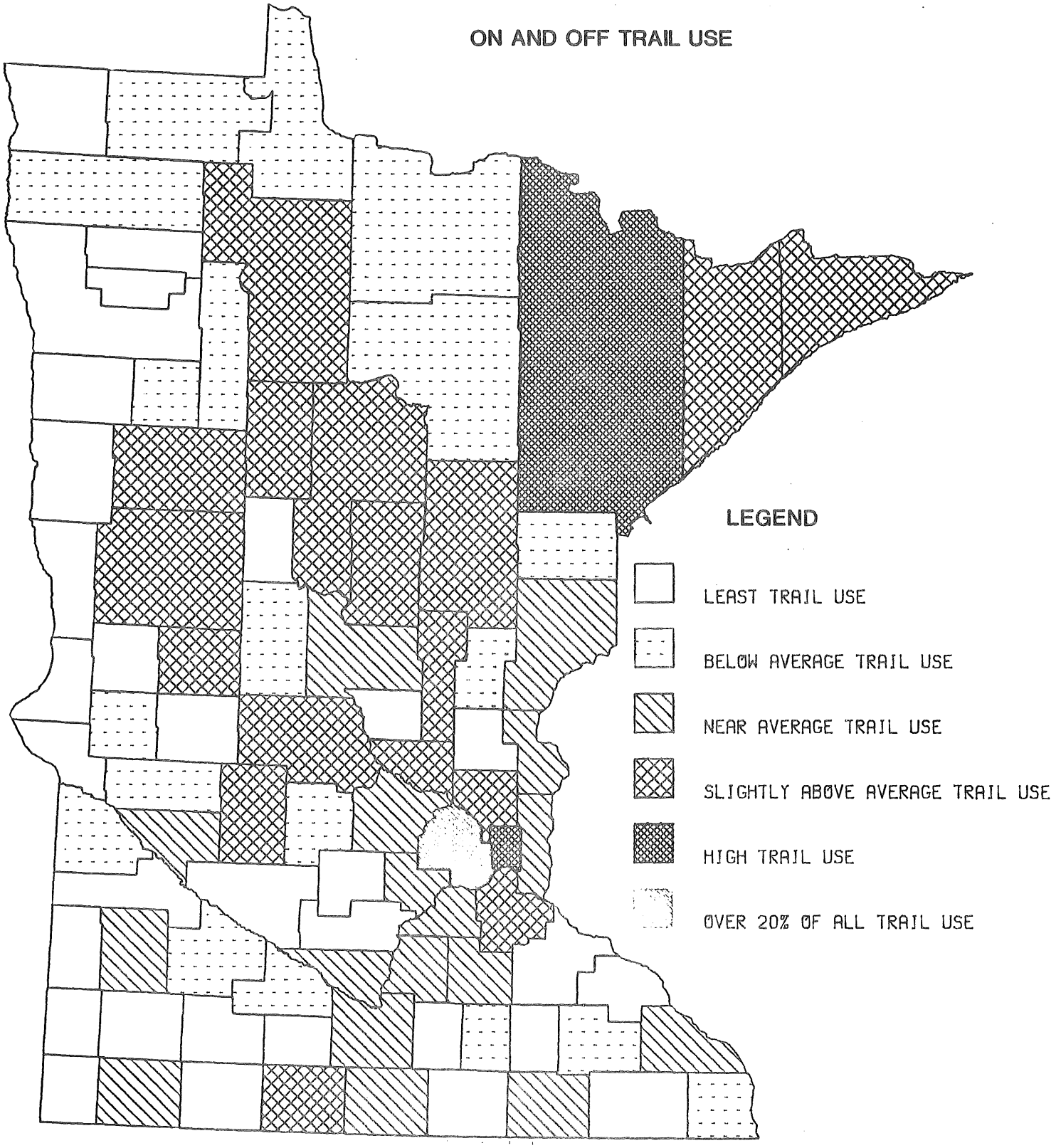



FIGURE 4

TRAILS DEMAND BASE DATA REPORT
STATE PLANNING AGENCY 1980

# DISTRIBUTION OF STATEWIDE HORSEBACK RIDING

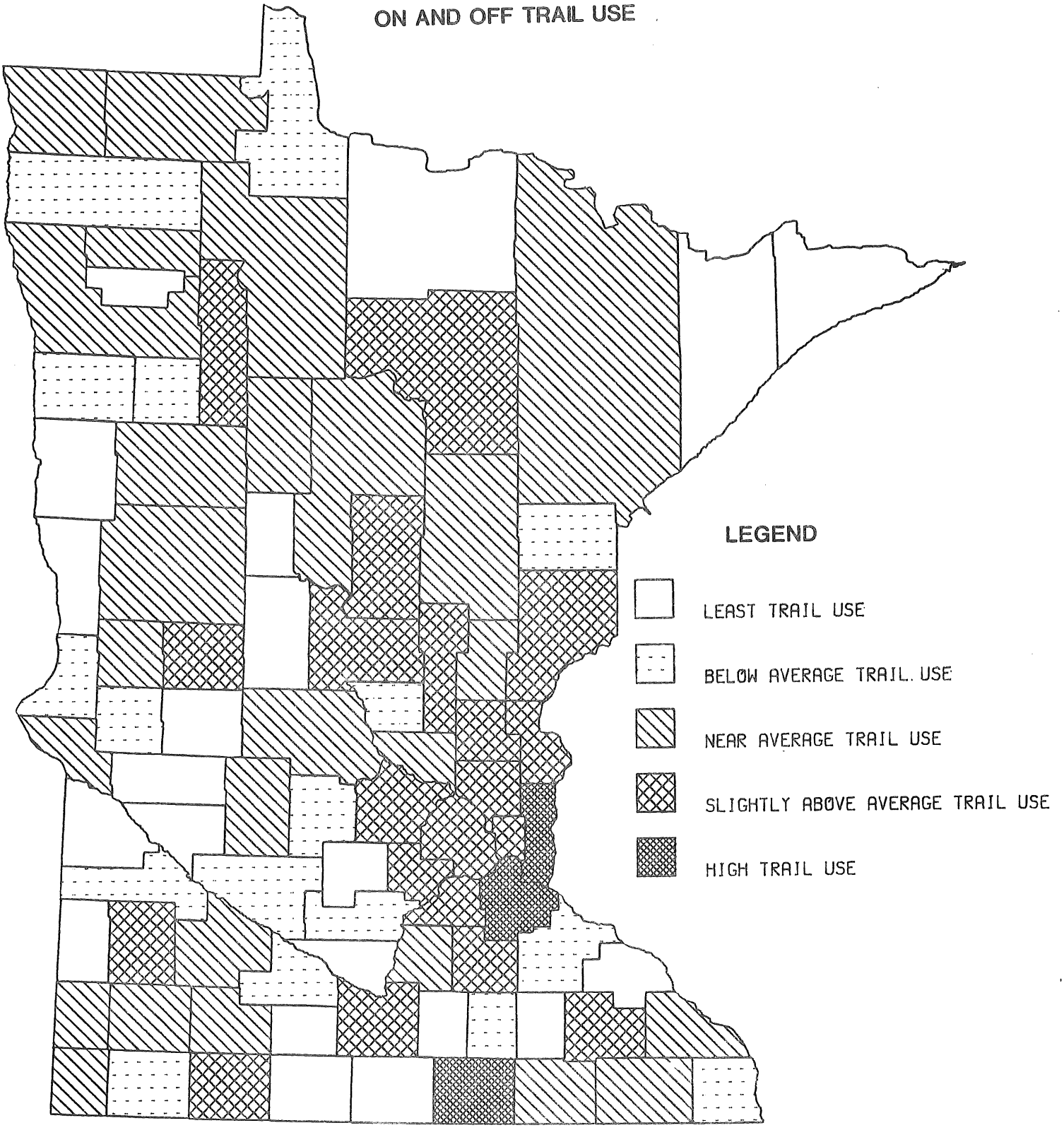



FIGURE 5

TRAILS DEMAND BASE DATA REPORT
STATE PLANNING AGENCY 1980

Hiking and backpacking activity, however, does correspond to areas with high-quality resources. The most urban counties; Hennepin, Ramsey and St. Louis have the highest use. There are however, state and regional parks with quality hiking trails in these counties. Outside of the urban counties, almost every county with a high level of hiking activity is in a part of the state with quality resources such as: Lake, Cook, Hubbard, Beltrami, Cass, Crow Wing, Aitkin, Mille Lacs, Ottertail and Becker. Most of the western half of the state had very little hiking activity. The counties with predominantly wet terrain in the northern part of the state also had little hiking use.

Statewide distribution of horseback riding use shows a different pattern than the other activities. Use is highest in Washington, Dakota and Freeborn (Albert Lea) Counties. There is a cluster of counties with fairly high use near the metro area. These counties include Hennepin, Ramsey, Anoka, Scott and Carver and also Wright, Rice, Chisago and Isanti. Other counties with high use are scattered across the state. These include Blue Earth, Olmsted, Jackson, Lyon, Pine, Mille Lacs, Crow Wing, Morrison, Itasca, Clearwater and Douglas. Counties with very low use also are scattered across the state and include: Lake, Cook and Koochiching in the northeast; Clay, Wilkin and Red Lake in the Red River Valley; Wadena and Todd in the center of the state; and Watonwan, Martin and Faribault in the southern part of the state. Few conclusions can be made about horseback riding activity based upon this first map.

## V. Comparison of Distribution of Trail Use to Population Distribution, by County

### A. Description and Context

By contrasting the distribution of trail use mapped above to population, the data may indicate certain patterns of use. The assumption was made that if trail use for a particular activity in a county was substantially greater than expected, considering the county's population, then that county could be a target for trail development. Likewise, the opposite also could hold true. If use is less than anticipated, it could indicate a lack of suitability for, or interest in a particular trail activity in a certain county or region.

### B. Method

The percentage of the state's population which occurred in each county was calculated. This figure was then divided by the percentage of trail use which occurred in each county. The quotients were then grouped logically.

$$\frac{\text{percentage of statewide user occasions for trail activity X in county Y}}{\text{percentage of the state's population in county Y}} = \text{Quotient}$$

The same parameters were used to construct data levels for each of the five maps which follow.

They are defined as follows:

level A = 0-0.6 (the quotient of less than 1 indicates that a county's relative population is greater than its percentage of trail use)
level B = 0.7-1.3 (trail use is roughly equal to population)
level C = 1.4-3.9 (trail use is greater than population)
level D = 4.0 (trail use is much greater than population)

C. Observations

This analysis is an indication of per capita trail use by county. These maps, by themselves, are not a completely accurate measure of per capita trail use because travel patterns are not considered. There is no way of determining whether trail users live in the county where they participated in an activity or whether they traveled to that county.

Nevertheless, these maps do indicate where trail use is more intensive, with respect to population. Whether that intensity of trail use is caused by an influx of tourists or by a high participation rate in that county can only be speculated. However, in many cases the answer is fairly apparent.

For example, on the hiking/backpacking map, Cook County is in the "very high" category. One can safely attribute this high amount of trail use to visitors. This, in turn, could demonstrate the attractiveness of that part of the state to participants in this activity.

Figure 6 compares snowmobiling activity to population. There does not appear to be any pattern to the data. The counties that show the highest snowmobiling activity are Sibley, Benton, Isanti, Kanabec, Aitkin, Cass, Becker, Mahnomen, Red Lake, and Roseau. Counties such as Cass, and Aitkin are in an area which traditionally attracts people from other parts of the state to snowmobile. Resorters in these counties advertise the snowmobiling opportunities and trail systems that are available. Urban counties for the most part had a low level of snowmobiling activity compared to population. Hennepin, Ramsey, Dakota and Winona counties appear in the lowest category. Washington, Scott, Anoka, Olmsted and Mower counties appear in the next-to-lowest category. Nevertheless, it does not appear that any conclusions can be drawn from the information on this map.

On the other hand, the cross-country skiing map (Figure 7) shows several trends. Skiing activity, compared to population, is much higher in the wooded areas of the state. The counties with the highest use compared to population include Kanabec, Carlton, Cook and Lake of the Woods counties. Counties in the high use category include Cass, Aitkin, Crow Wing, Itasca, Beltrami, Clearwater, Hubbard and Wadena counties. This demonstrates that to a greater degree than snowmobilers, cross-country skiers prefer areas with scenic amenities. Urban counties appear to serve their population with adequate opportunities for cross-country skiing. Hennepin, Anoka, Dakota and Scott counties as well as Blue Earth, Olmsted, Stearns and St. Louis counties all are in the near average category. This means

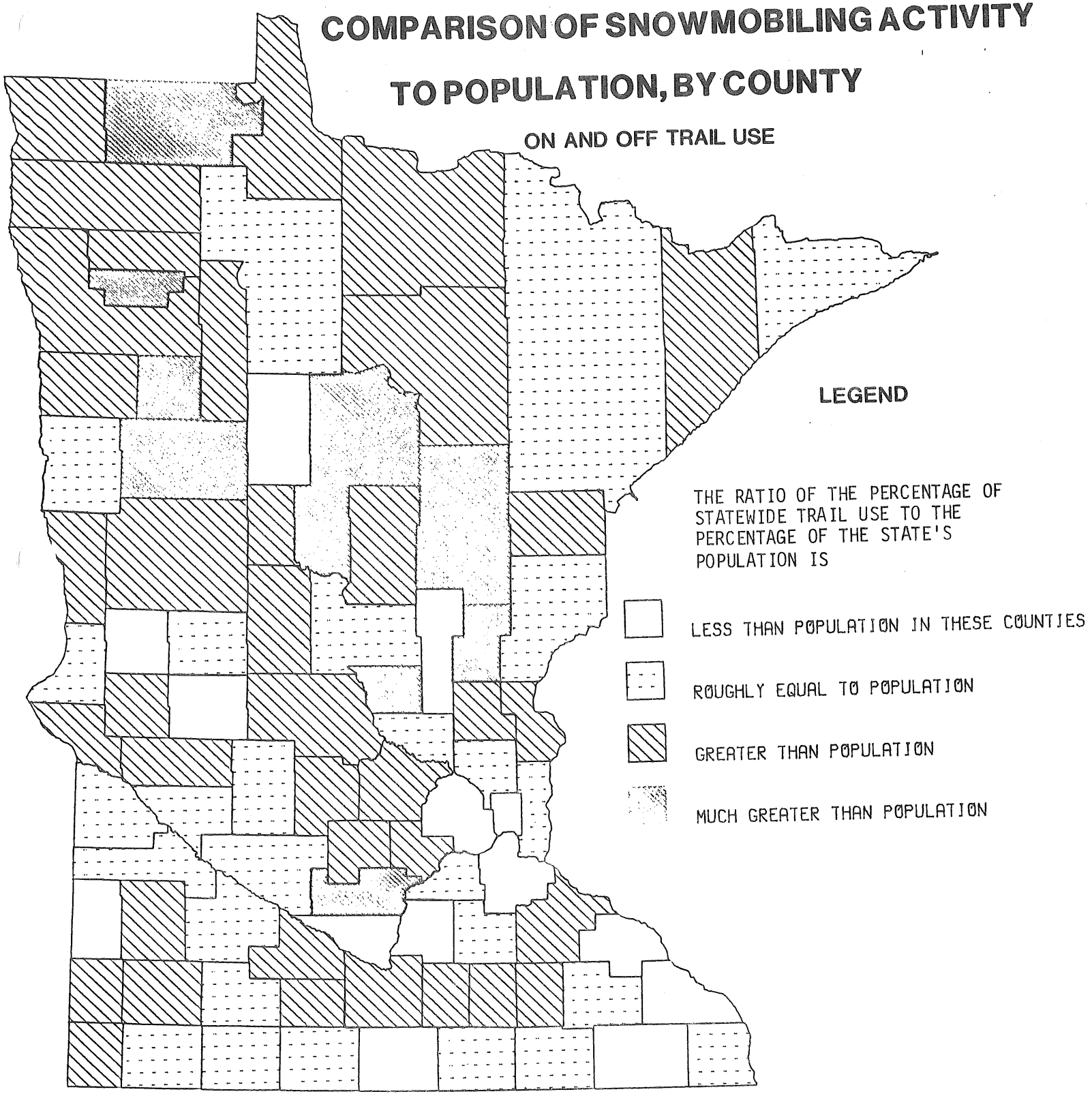



FIGURE 6

TRAILS DEMAND BASE DATA REPORT
STATE PLANNING AGENCY 1980

# COMPARISON OF CROSS-COUNTRY SKIING ACTIVITY TO POPULATION, BY COUNTY

ON AND OFF TRAIL USE

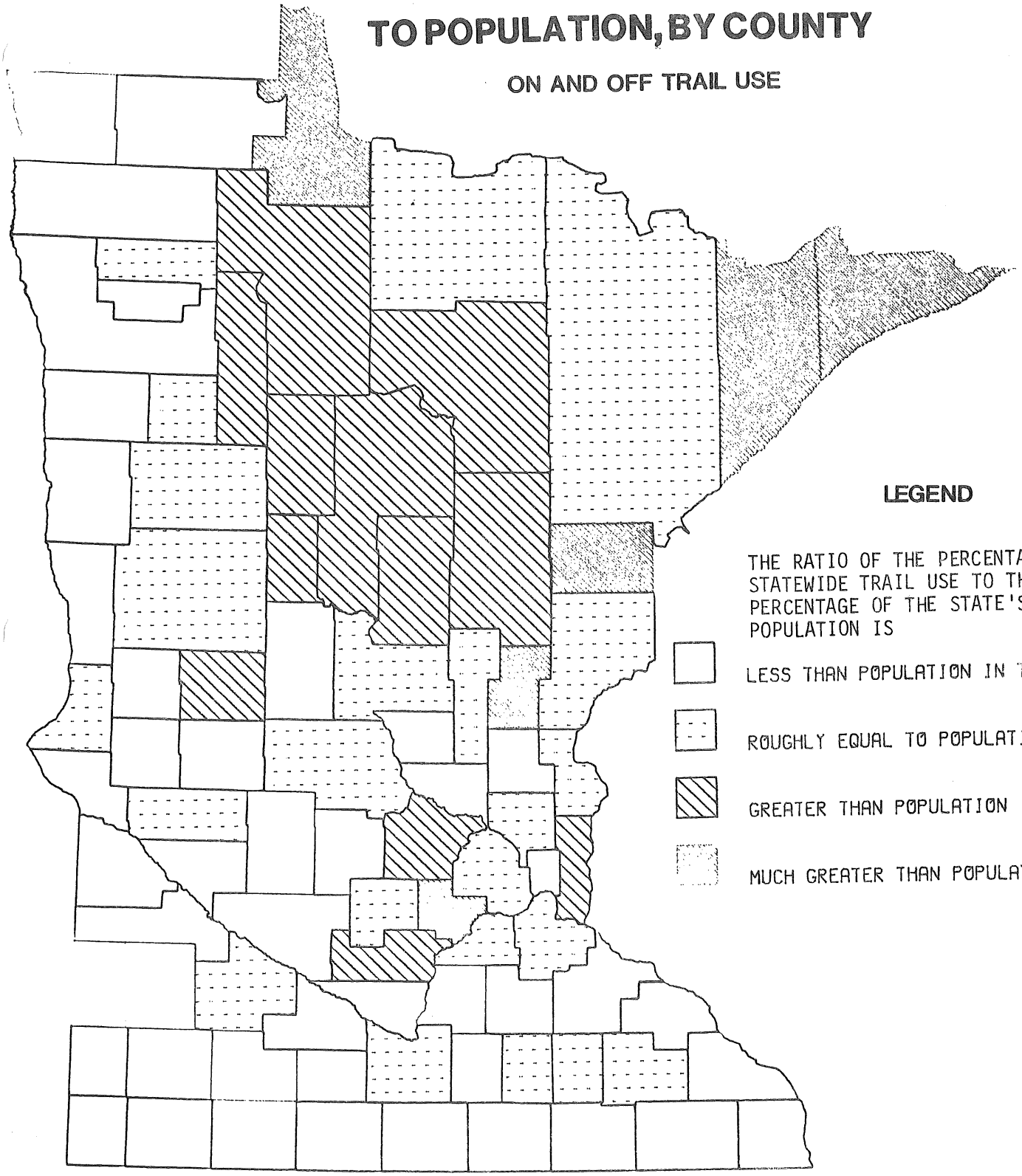



FIGURE 7

TRAILS DEMAND BASE DATA REPORT
STATE PLANNING AGENCY 1980

# COMPARISON OF BICYCLING ACTIVITY TO POPULATION, BY COUNTY

## RECREATION AND TRANSPORTATION BICYCLING

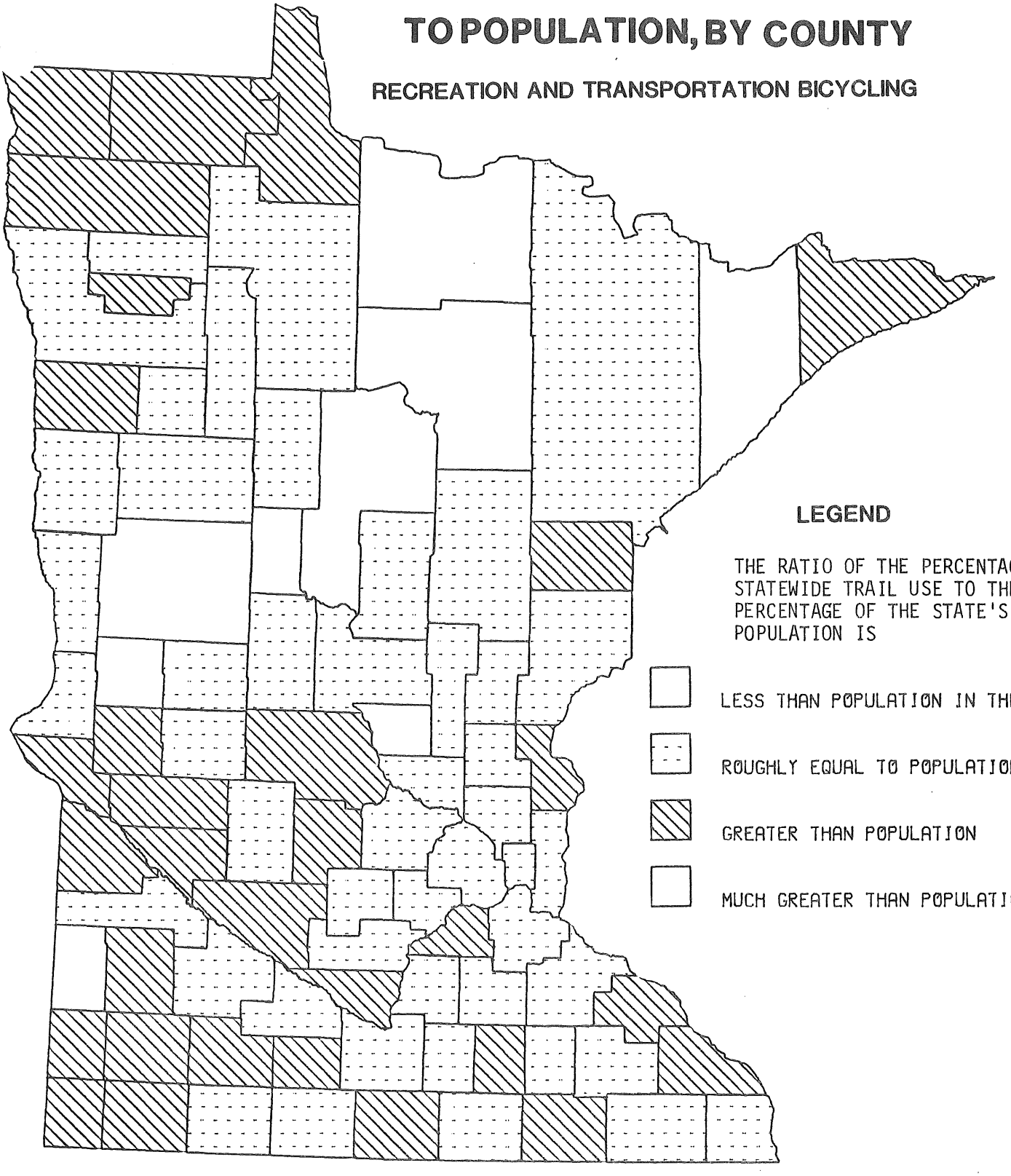



FIGURE 8

TRAILS DEMAND BASE DATA REPORT
STATE PLANNING AGENCY 1980

# COMPARISON OF HIKING AND BACKPACKING ACTIVITY TO POPULATION, BY COUNTY

## ON AND OFF TRAIL USE

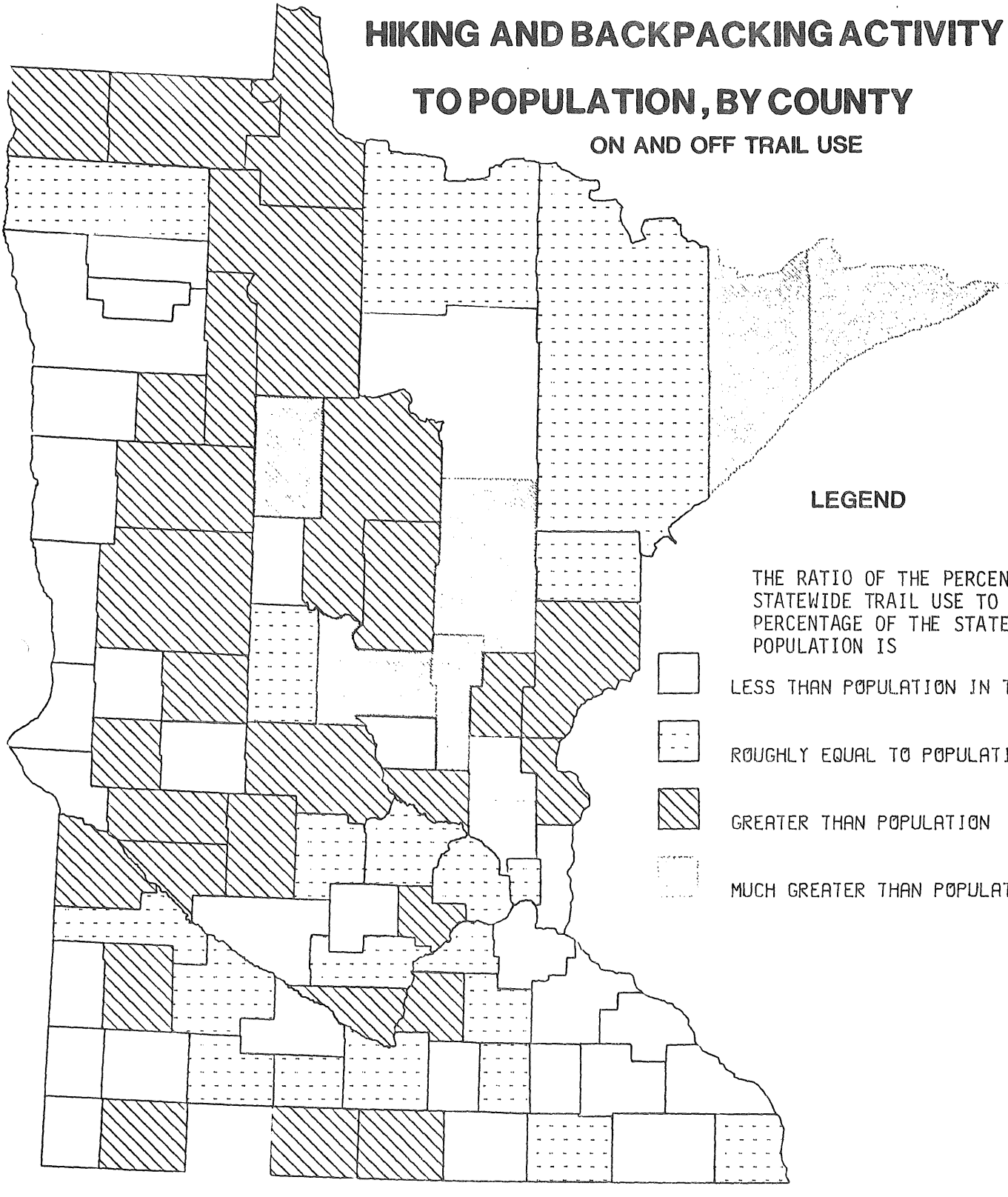



FIGURE 9

TRAILS DEMAND BASE DATA REPORT
STATE PLANNING AGENCY 1980

# COMPARISION OF HORSEBACK RIDING ACTIVITY TO POPULATION, BY COUNTY

## ON AND OFF TRAIL USE

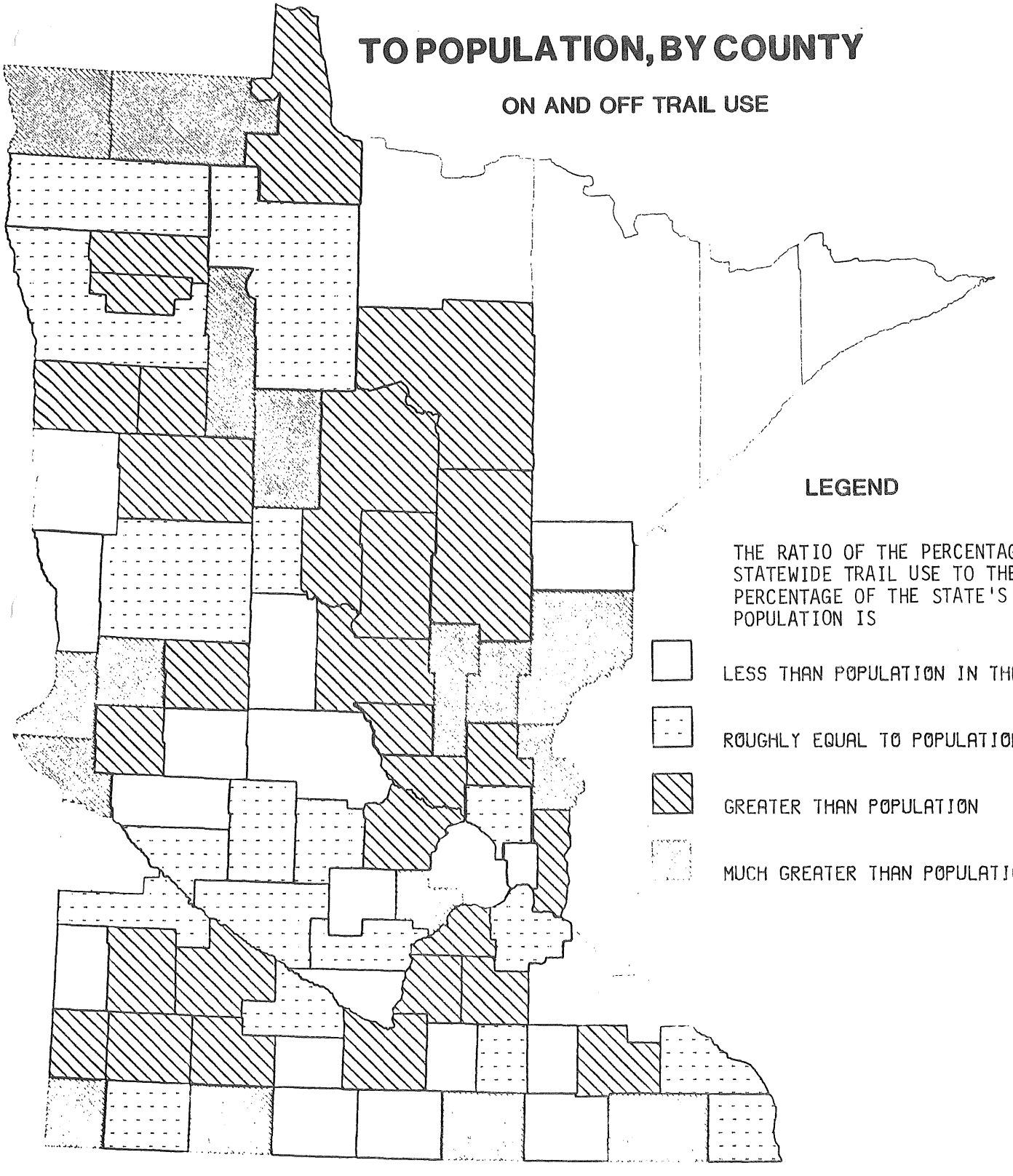



FIGURE 10

TRAILS DEMAND BASE DATA REPORT
STATE PLANNING AGENCY 1980

that even a county with a very high population, such as Hennepin, is still capable of serving local demand for cross-country skiing within its own borders. Some urban counties are able to provide opportunities for even a greater population than lives in their own county. Washington, Wright and Carver are in this group.

An especially interesting observation can be drawn from the bicycling map (Figure 8). In almost every county the percentage of bicycling was very close to that county's percentage of the state's population. This is a strong indication, not surprisingly, that almost all bicycling activity takes place in the bicyclist's county of residence (even in Ramsey and Hennepin). It is significant that there are no counties in level D, counties for which trail use is much greater than population. This further indicates the strong relationship between population and bicycling. Only 9 counties scattered throughout the state which include Lincoln, Lake, Koochiching, Itasca, Cass, Wadena, Ottertail and Grant are in the lowest category.

Currently in Minnesota there does not exist a high-quality, resource-based bicycle trail network to refute this hypothesis. It would seem however, that bicycle funds should be directed at development of local facilities rather than high-quality, resource-based bike trails in remote, outstate locations.

As with cross-country skiers, the map which compares hiking to population by county (Figure 9) shows a trend that hikers and backpackers also prefer resource-attractive areas. Counties which fall in the highest use category include Cook, Wadena, Aitkin, Mille Lacs and Morrison counties. The counties in the lowest use category are scattered throughout the state but generally, fall in agricultural areas. There is a cluster of counties in the lowest category in the Red River Valley and across the southern tier of the state. It must be emphasized, however, that these trends are not overwhelmingly strong. There are counties in the southern part of the state which are above average as far as providing hiking opportunities for their population. These counties include Lyon, Nobles, Faribault, Freeborn, LeSueur, Nicollet, Lac qui Parle, Chippewa, Swift and Kandiyohi. Not all urban counties are able to provide a sufficient number of hiking opportunities for the hiking population within their county. St. Louis, Winona, Carver, Ramsey, Hennepin and Scott counties are in the average or above average categories. On the other hand, Anoka, Washington and Dakota counties, as well as Olmsted and Winona counties are in the below average category. The fact that heavily urbanized counties such as Hennepin and Ramsey are able to provide as great a number of hiking opportunities as they do is especially impressive, being as hikers appear to desire resource attractive areas.

Figure 10 compares population to horseback riding occasions. Of the five maps in this group, horseback riding has the greatest distribution of responses. There are fifteen counties in the highest category which is far more than for any other map in this analysis. For bicycling, there were no counties in the very high use category. There are counties in the highest category in all parts of the state and there are counties in the lowest category in all parts of the state. A possible trend exists

in the Arrowhead Region where Carlton, St. Louis, Koochiching, Lake and Cook counties all are in the lowest category. It is notable that despite the reported very high horse population in Hennepin County, horseback riding, as compared to population, is below average. This also holds true for Ramsey County. Anoka and Dakota are near average. Washington and Scott are above average and Carver is very much above average. Other counties which ring the metropolitan area including Wright, Sherburne, Isanti, Rice and Le Sueur are above average; Pine, Chisago, Isanti and Mille Lacs are very much above average.

## VI. Users Per Trail Mile, by County

### A. Description and Context

The preceding analysis compared trail use to population. This next set of maps compares the number of trail user occasions per county, to the number of miles of publically-managed trail per county. This analysis is done for cross-country skiing, snowmobiling and hiking. Most horseback riding and bicycling does not occur on publically-managed trails, therefore these uses were not included in this analysis. This represents a direct comparison of demand (trail use) to supply (miles of trail).

### B. Method

The number of trail user occasions was derived from the DNR SCORP survey. Although the data were developed from surveys with a sufficiently large sample, they were not developed to be used in analytical applications at the county level. Rather, these data were developed by the DNR to observe broad regional trends. Consequently, rather than display actual counts of users per trail mile, counties are divided into one of three data levels: high use per trail mile, moderate or average user per trail mile, and low use per trail mile. This approach is a more appropriate use of the data at a statewide level of analysis.

The three levels were established by the following method. First the statewide median and the mean were calculated for trail users per mile. For each activity, the mean and median were close. Going outward from the median, three roughly even distributions were created for each map. The parameters used to define data levels on this series of maps are not consistent. These three maps are not completely comparable. Table 3 defines the parameters used on this series of maps. The figures represent the number of user occasions per mile per week.

Table 3

| | Low | Medium | High |
|---|---|---|---|
| snowmobiling | 0-33 | 41-164 | 195→ |
| cross-country skiing | 0-10 | 11- 49 | 56→ |
| hiking and backpacking | 0-49 | 61-167 | 208→ |

A fourth data category was established for those counties where a user per mile figure could not be calculated. In some counties no publically-administered trails exist. Furthermore, in some counties the SCORP survey did not identify any trail users. All such counties were placed in the incomplete data category. Table 4 shows those counties which have either no trails, no users or both no trails and no users.

Table 4

Counties with Incomplete Data

These data refer to those counties shown on figures 11-13 in the "incomplete data" category

| COUNTY | SNOWMOBILING | CROSS-COUNTRY SKIING | HIKING & BACKPACKING |
|---|---|---|---|
| Benton | no trails | no trails & no users | no trails |
| Big Stone | no trails | no trails & no users | |
| Chippewa | no trails | no trails | no trails |
| Clay | no trails | | |
| Cottonwood | no trails | no trails | no trails |
| Dodge | no trails | | no trails & no users |
| Faribault | | no trails & no users | no trails |
| Freeborn | | | no users |
| Grant | no trails | no trails & no users | no trails |
| Houston | | no trails & no users | |
| Hubbard | | no trails | |
| Isanti | | no trails & no users | no trails |
| Jackson | | | no users |
| Kanabec | | no trails | no trails |
| Kittson | | no users | |

| COUNTY | SNOWMOBILING | CROSS-COUNTRY SKIING | HIKING & BACKPACKING |
|---|---|---|---|
| Koochiching | | no trails & no users | |
| Lac qui Parle | | no users | |
| Le Sueur | no trails | no trails | no trails |
| Lincoln | | no trails & no users | no users |
| Mc Leod | no trails | no trails | no trails |
| Mahnomen | | no trails & no users | no trails |
| Martin | no trails | no trails | no trails |
| Meeker | | no trails | no trails |
| Mille Lacs | | no trails | |
| Morrison | | no trails | |
| Murray | | no users | |
| Nobles | no trails | | |
| Norman | no trails | no trails | no trails & no users |
| Pennington | | no trails | no trails & no users |
| Pipestone | no trails | no trails & no users | |
| Polk | no trails | no trails | no trails |
| Pope | | no trails | |
| Ramsey | no trails | | |
| Red Lake | no trails | no trails & no users | no trails |
| Renville | | no users | no users |
| Rice | | no users | |
| Roseau | | no users | |
| Sibley | no trails | no trails & no users | no trails |

| COUNTY | SNOWMOBILING | CROSS-COUNTRY SKIING | HIKING & BACKPACKING |
|---|---|---|---|
| Stevens | no trails | no trails & no users | no trails |
| Todd | | no trails | no trails |
| Traverse | no trails | no trails | no trails & no users |
| Wabasha | | no users | |
| Wadena | | no trails | no trails |
| Waseca | | no trails & no users | no trails |
| Washington | no trails | | |
| Watonwan | no trails | no trails & no users | no trails |
| Wilkin | no trails | no trails & no users | no trails & no users |
| Winona | | no users | |

As previously discussed, the broad category of snowmobiling actually consists of four sub-categories from the SCORP survey.

sub-cateogry 1. on-trail snowmobiling
sub-category 2. off-trail snowmobiling
sub-category 3. snowmobiling both on- and off-trails
sub-category 4. miscellaneous (people who apparently either did not know or misunderstood the question).

The same sub-categories exist for cross-country skiing.

For this analysis it was necessary to isolate persons who snowmobiled or skied on a trail from those who participated off-trail. Respondents who were considered to be trail users were all of the respondents in sub-category 1 (on-trail use) and 3 (both on- and off-trail use). In each county the respondents in sub-category 4 (miscellaneous) were apportioned to the on-trail group in the same proportion as existed between on- and off-trail users. For example, if in a given county 5 persons snowmobiled on-trail, or both on- and off-trail, then two of every three respondents in the miscellaneous sub-category were assumed to be on-trail snowmobiling users.

In some counties, the only respondents were in the miscellaneous category. In this case, the respondents were apportioned to the on-trail group using the statewide ratio between on-trail and off-trail use.

In the summer survey, hiking and backpacking were treated as separate activities. For the purpose of this analysis these two activities were combined. The summer survey did not distinguish between hiking which occurred on- or off-trail.

Two sources of information were used to establish the number of miles of trail per county. One source used is the DNR trails inventory. This inventory was prepared principally by DNR regional trails coordinators and then compiled and computer-coded at DNR's Office of Planning. The second source is a trails inventory completed by the Metropolitan Council for the metro area. The DNR trails inventory treated hiking trails and interpretive trails as separate categories. The Metropolitan Council did not distinguish between these categories, therefore in the statewide inventory these two categories have been combined.

C. Observations

A disturbing observation that can be drawn from table 3 is that in some counties there were trail users but no trails. One explanation for this apparent contradiction is that people may have hiked, skied or snowmobiled on non-publically maintained trails which were not included in the inventory. In the case of snowmobiling, however, it is less likely for many private trails to exist because the expense of grooming is difficult for the private sector to bear without state support. For skiing and hiking, non-public trails do exist in many parts of the state. In any event, no conclusions can be made about trail use in these counties, based on these data. Further investigation is necessary by those acquainted with these areas, perhaps by field personnel.

On the other hand, the counties where no users were reported but that public trails do exist require immediate examination by the operating agencies. Although sampling techniques miss some users, especially when a statewide project focuses on one county, the trails in those counties must be examined to see if they are being used by a sufficient number of people to warrant their continued operation.

A similar conclusion can be drawn about those counties that show a below average number of users per trail mile. Operating agencies should evaluate use of these trails to see how they are being used. It would appear, based on these data, that further expansions of trail supply in those counties would not be wise investments of state funds.

Among the counties there was greater variation in miles of trail than in number of users. Consequently, the categories of high, low or moderate trail use generally were more sensitive to variations in miles of trail per county. Often then a county may show up in the high users per mile category only because there were very few miles of trail in that county.

Perhaps the key observation which can be drawn from these data is that those counties with an above avarage rating for users per mile should be "target counties" for future trails development. Requests for funding and project proposals from these target counties should receive funding priority.

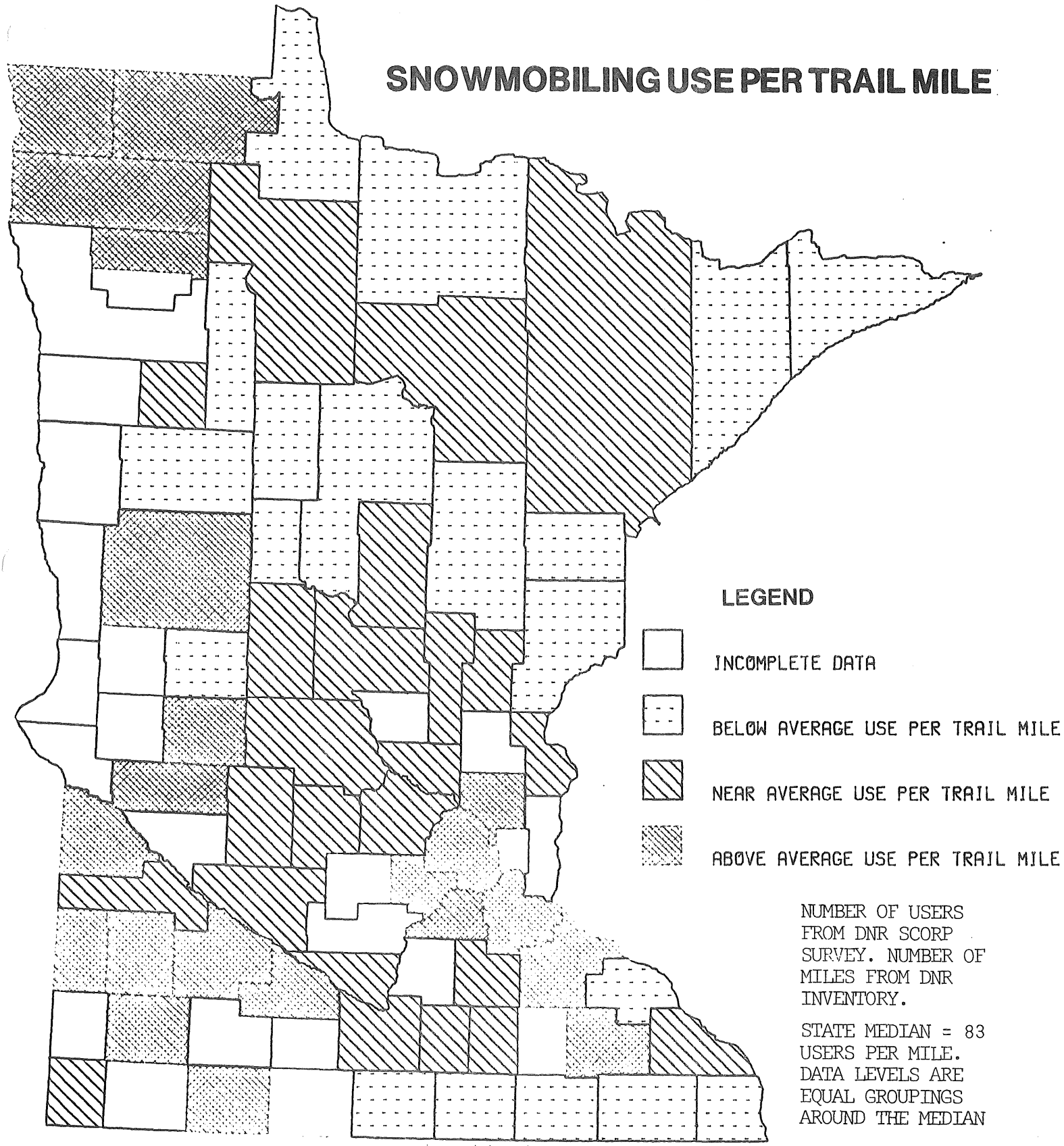



FIGURE 11

TRAILS DEMAND BASE DATA REPORT
STATE PLANNING AGENCY 1980

# CROSS-COUNTRY SKIING USE PER TRAIL MILE

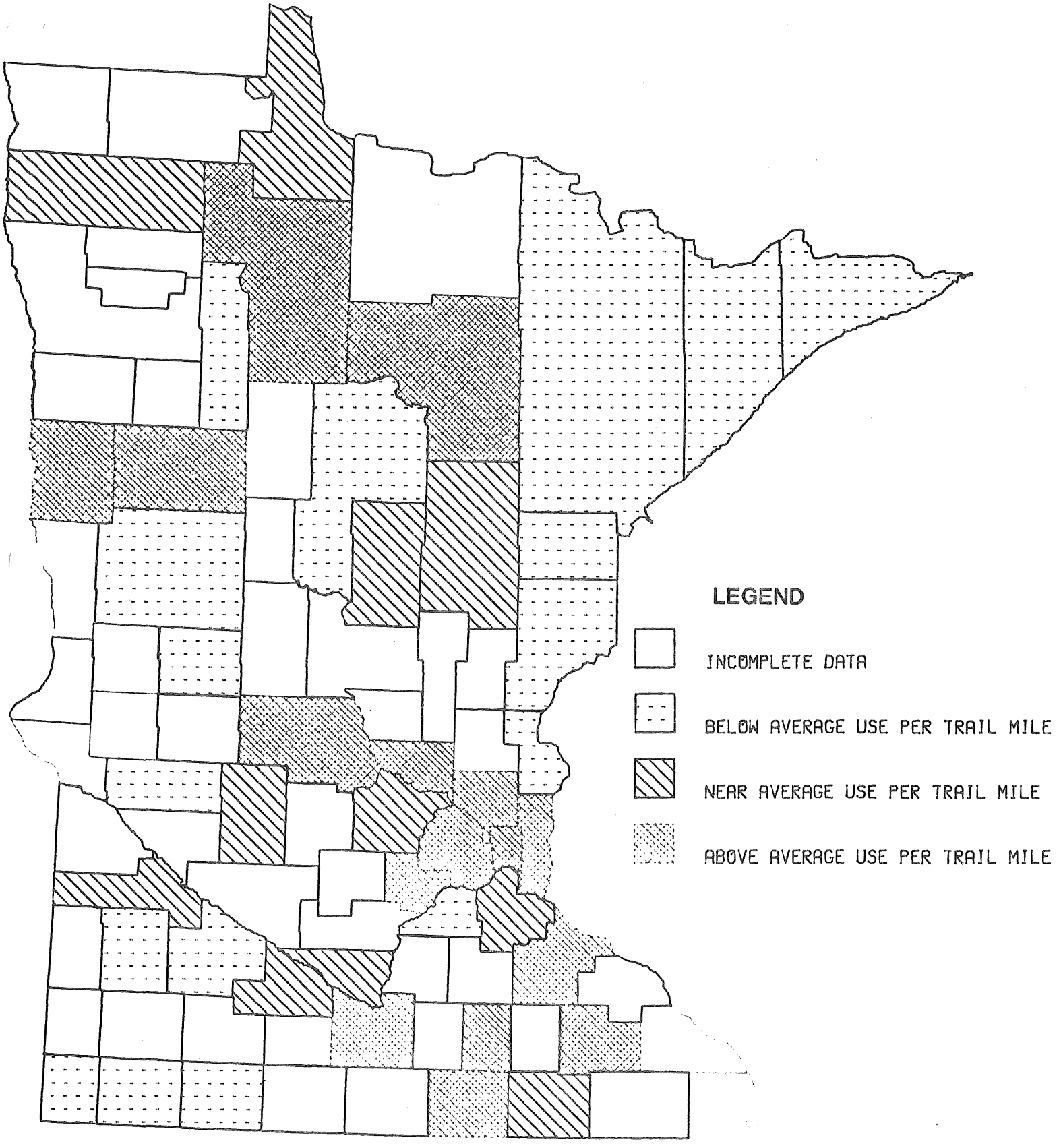



FIGURE 12

TRAILS DEMAND BASE DATA REPORT
STATE PLANNING AGENCY 1980

# HIKING AND BACKPACKING USE PER TRAIL MILE

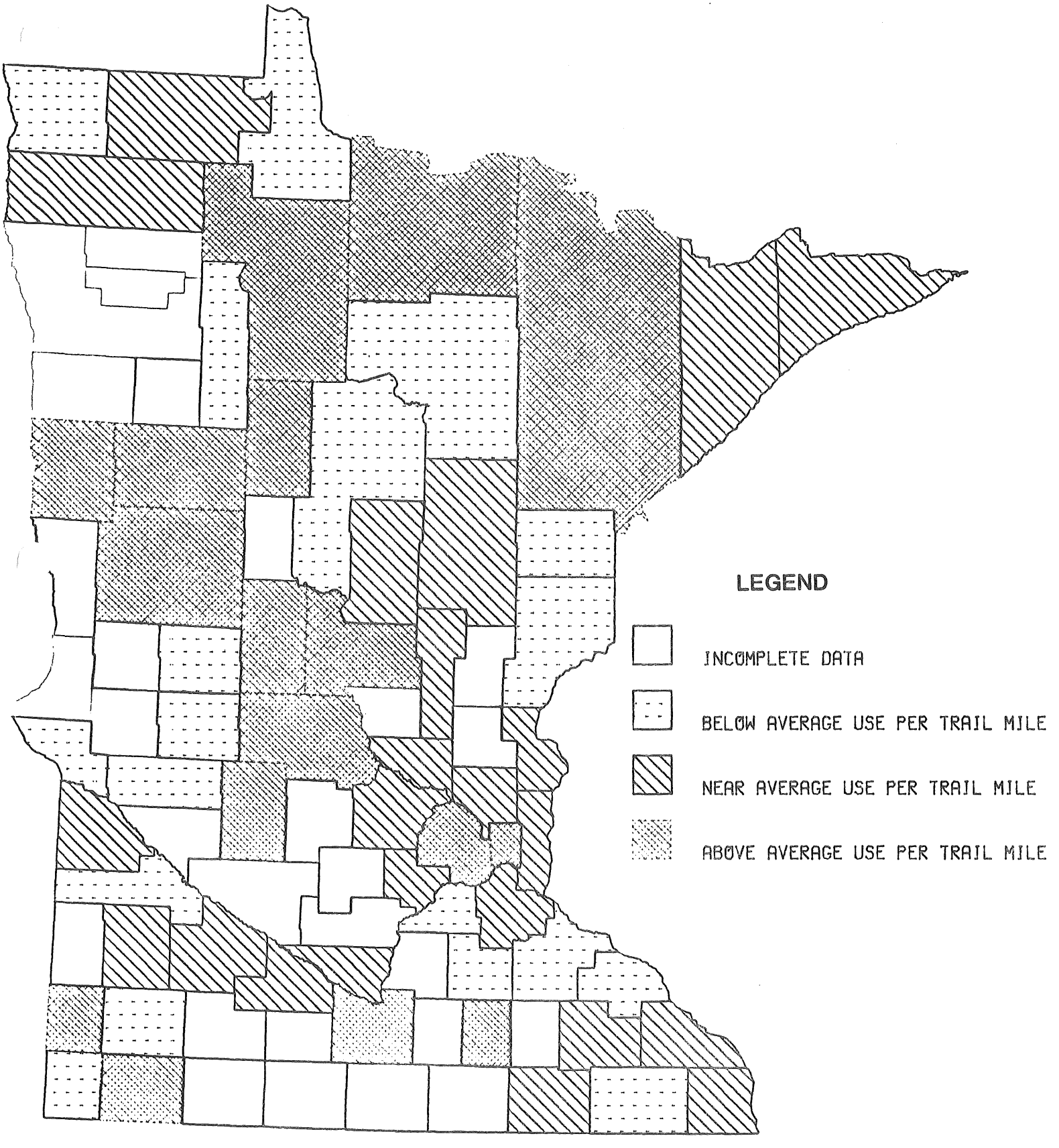



FIGURE 13

TRAILS DEMAND BASE DATA REPORT
STATE PLANNING AGENCY 1980

Although these data, by themselves, are not enough to preclude trails development in other counties, certainly given a choice between two proposed trails developments in similar resource areas, the proposed trail in a county with a high number of users per mile should be the preferred choice.

Based upon such quantitative characteristics as access to population centers, resource quality and availability of public land, the list of these target counties will be further refined. It must be pointed out, however, that because the data analyzed in this section were derived from where people actually said they went, factors such as resouce quality and accessibility have already been considered implicitly, because each person, in deciding where to recreate has already analyzed these factors.

Figure 11 shows the number of snowmobilers per mile. A mild pattern emerges which shows that counties in southern and western Minnesota have higher use, per mile of trail, than counties in northeastern Minnesota. Counties that show the highest use per trail mile include Murray, Lincoln, Lyon, Redwood, Jackson and Lac qui Parle in the southwestern part of the state, and Kittson, Roseau, Marshall and Pennington in the northwestern part of the state. Many of the urban counties also show a high number of occasions per trail mile. Olmsted, Wabasha, Dakota, Scott, Carver, Hennepin, and Anoka counties all are in the highest category. There is incomplete data for Ramsey and Washington counties. Most of the counties in the below average category are in the northeastern and north central parts of the state. These counties include Lake, Cook, Carlton, Pine, Aitkin, Cass, Hubbard, Wadena, Becker, Clearwater, Lake of the Woods, and Koochiching. One may have expected that these counties would have a high amount of use per trail mile but that is not the case. This finding indicates a surplus of snowmobile trails in these counties. It follows then, that further investments in snowmobile trails might better be directed to suitable routes in other counties, especially those in the northwest and southwest parts of the state as well as in and around the metropolitan area. The findings on this map are most striking and surprising, and should affect public policy regarding development of new trails.

Cross-country skiing use per trail mile is shown on Figure 12. No statewide trend emerges due, in part, to the large number of counties for which there is incomplete data. What is immediately apparent is that urban counties have high use per trail mile. Freeborn, Olmsted, Blue Earth, Clay (Moorhead) and Stearns counties all have above average use per trail mile for cross-country skiing, and in the Metropolitan Area, Washington, Anoka, Ramsey, Hennepin and Carver counties have above average use per trail mile. Scott county is the only county in the metropolitan area with below average use per trail mile. Most of the northeastern part of the state, Cook, Lake, St. Louis, Pine and Chisago counties all have below average use per trail mile. This is interesting, especially in light of the belief that skiers from the metropolitan area go north in large numbers. Even Carlton County, which attracts skiers from both the metropolitan area and Duluth, has below average use per trail mile. Not surprisingly, those counties in the southern and western parts of the state, such as Ottertail, Douglas, Swift, Lyon, Redwood, Rock, Nobles and Jackson counties also have below average use per trail mile. There

are really very few counties in the western part of the state for which there are complete data and most of these show below average use per trail mile. This is reinforced by the observations derived from map 2 and the regional participation rates for cross-country skiing which were discussed above. Therefore, the emphasis in development of cross-country skiing trails should be in and around metropolitan areas and further development of state funded skiing trails in the northeastern part of the state should be suspended at least until use at existing facilities in northeastern Minnesota can be studied more closely. It appears that the recent surge in cross-country skiing trail development both in state forests and state parks has led to a temporary surplus of cross-country skiing facilities in that part of the state.

The final map in this series, Figure 13, shows hiking and backpacking occasions per trail mile. No trends emerge upon investigation of these data Most urban counties have average or above average use per trail mile. Mower, Olmsted, Winona and Wright are all average as are Carver, Dakota, Washington and Anoka counties. Hennepin and Ramsey, St. Louis, Stearns, Clay and Blue Earth all have above average hiking activity per trail mile. There is a band of counties across the northern half of the state where hiking activity is above average. These counties include Becker, Hubbard, Ottertail, Beltrami and Koochiching. There are other interesting observations. In the analysis which compared trail use to population the amount of hiking activity in Cook County was 27 times greater than Cook County's percentage of the state's population (Figure 9). However, on this map, Cook County shows only an average amount of use per trial mile. In other words, even though a large number of people travel to Cook County to hike and backpack, there is an adequate supply of trails to accommodate them. In the discussion about map 4, distribution of hiking, it was said that very little hiking occurred in the northern counties that have large amounts of wet terrain such as Itasca and Lake of the Woods. Figure 13 supports this observation. Koochiching, however is an exception with above average use per mile.

## VII. Destinations of Recreational Trail Users

### A. Background and Context

The purpose of these data is to show where people went to participate in recreational trails activities. This section contains data that show the destinations, by county, of recreational trail users. In each case, the origins of the trail users, will be the Regional Development Commission (RDC). Once again the source of information for this study is the SCORP survey conducted by the DNR. These data can be used by planners at all levels of government to help measure demand for trails facilities within their jurisdiction.

### B. Method

An SPSS crosstabulation was run to arrive at these data. Although it would have been possible to use the county as the unit of origin, the number of records for the smaller counties would be too few to be meaning-

ful. Furthermore, at the RDC level the sample for each region is sufficiently large to provide an accurate portrayal of where trail users go.

These data are given for a typical week. A week is the most appropriate measure because the length of recreation seasons vary so from year to year, especially in Minnesota. If one wishes to expand these weekly data to represent an entire season, one must multiply by the number of weeks in the recreation season. DNR planners suggest using a 14 week winter season and a 17 week summer season. However, for the summer trails activities, especially for hiking for which more use may occur in autumn than in summer, the season may well be longer than 17 weeks.

Finally, users of these data must remember that the data are weighted and therefore must be used carefully. Each response is multiplied by a factor as great as 300 in region 10 and in the metropolitan area. Therefore, in some RDCs, a weighted figure of one thousand users could mean that there were only three or four actual responses. Statistically, a county with less than 1,000 reported weighted occasions is little different than a county with no reported occasions. Realistically, the data should show several thousand uses in a county before any meaningful trends can be established.

C. Observations

The principal observation of this phase of analysis is that people recreate in their own region. This observation is not startling; however, it does contradict past policy decisions to locate recreation facilities in the amenity-rich northern third of the state. In recent years, a large amount of money has been spent to build trails far away from where people live. This analysis, as well as analysis from the other SCORP surveys indicate that people not only preferred to recreate nearby to where they lived, but that they did so even if the facilities were not as good as elsewhere. This finding, coupled with the increasing price of gasoline, will mean that people will not travel far to get to high-amenity areas.

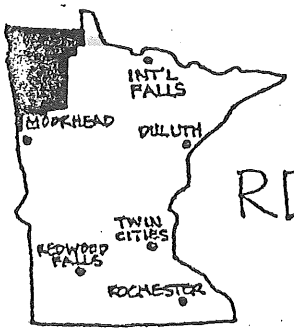
Trail users from the metropolitan area do travel to other parts of the state to recreate, but not in the numbers that many previously believed. As shown on the maps which compare population to trail use, the counties in the metropolitan area adequately serve local demand for bicycling, hiking and cross-country skiing. Snowmobiling and horseback riding require longer trails and consequently more of these trails activities occur outstate. However, more snowmobiling occurs in Hennepin and Anoka counties than in any other county.

Another reason that trail users from the metropolitan area have more destination counties shown on these lists is that the sample size is much larger. In the metropolitan area the sample used was 3,000 households as opposed to the sample of 650 households in all other regions. Therefore, more "stray" responses were recorded. For example, one or two people may have gone to Big Stone County to visit family and skied while they were there. A larger sample makes it more likely to capture such responses.

The response in Region 3 is the most dramatic example of how trail users tend to stay in their own region. Region 3 is the largest region in area and it is one of the regions that many people consider as having attractive resources. For winter trails activities, we have identified a tiny fraction of users who went to Freeborn County. All other skiers stayed within the region. No snowmobilers who traveled outside of the region were identified. For summer activities the destination pattern of trail users is similar. Only a small number of bicyclists participated outside of the region in Chisago County; some hikers went to Anoka, Becker and Beltrami Counties. All horseback riding occurred in the region. In Regions 5 and 10 there also were very few trails users who traveled outside of the region (but stayed within Minnesota).

Generally, destinations of trail users are more concentrated to the region of origin for winter activities than for summer activities. This is due, in part, to an apparent hesitancy to drive far in bad winter weather. Another reason for this observation is that outside of the metropolitan area, people do not like to transport their snowmobiles; they prefer to ride right from their doors.

For bicycling, most participation occurs very close to home; only a fraction of bicycling occasions involve carrying bicycles somewhere else by car. On the other hand, the great majority of hiking or backpacking does involve an automobile trip to an area with an attractive resource base. In summary, users generally travel farther to participate in trails activities in summer than in winter.

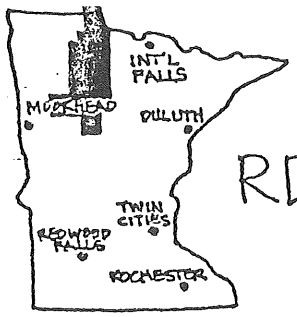



# DISTRIBUTION OF TRAIL ACTIVITY OCCASIONS FROM RDC TO COUNTY

RDC: _____

These figures represent the number of trail users from this RDC to recreate in each county. The figures represent a typical week during the winter of 1977-1978 or the summer of 1978.

| COUNTY | WINTER | | SUMMER | | |
|---|---|---|---|---|---|
| | SNOWMOBILE | CROSS-COUNTRY SKI | BICYCLE | HIKE-WALK | HORSEBACK |
| Becker | - | - | 55 | 55 | - |
| Beltrami | 255 | 153 | 1,320 | - | - |
| Carlton | - | - | - | 55 | - |
| Cass | 51 | 102 | - | - | - |
| Chippewa | - | - | 55 | - | - |
| Clearwater | - | 51 | - | 275 | - |
| Cook | - | - | 825 | - | - |
| Crow Wing | - | - | - | 110 | - |
| Hubbard | - | 51 | - | - | - |
| Itasca | 153 | - | - | - | - |
| Kittson | 2,044 | 102 | 9,295 | 715 | 1,100 |
| Koochiching | 51 | - | - | - | - |
| Lac qui Parle | - | - | 275 | - | - |
| Lake | - | - | - | 55 | - |
| Lake of the Woods | 869 | - | 2,475 | - | - |
| Lincoln | 102 | - | - | - | - |
| Lyon | - | - | - | - | 825 |
| Mahnomen | 102 | - | 110 | 220 | - |
| Marshall | 4,141 | 357 | 20,405 | 1,155 | 385 |
| Murray | - | - | - | - | 55 |
| Norman | 2,556 | 204 | 9,405 | - | 440 |
| Pennington | 6,492 | 511 | 9,845 | - | 825 |
| Pine | - | - | - | - | 275 |
| Polk | 8,690 | 409 | 28,655 | 605 | 715 |
| Red Lake | 3,118 | - | 6,490 | 55 | 330 |
| Roseau | 7,106 | 204 | 9,900 | 770 | 1,595 |

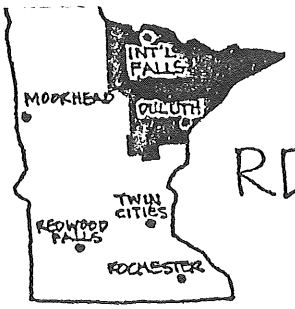



# DISTRIBUTION OF TRAIL ACTIVITY OCCASIONS FROM RDC TO COUNTY

RDC: _____

These figures represent the number of trail users from this RDC to recreate in each county. The figures represent a typical week during the winter of 1977-1978 or the summer of 1978.

| COUNTY | WINTER | | SUMMER | | |
|---|---|---|---|---|---|
| | SNOWMOBILE | CROSS-COUNTRY SKI | BICYCLE | HIKE-WALK | HORSEBACK |
| Becker | 1,089 | - | 580 | 112 | 56 |
| Beltrami | 6,248 | 2,691 | 19,404 | 2,688 | 1,064 |
| Cass | 160 | - | - | 84 | - |
| Chisago | - | - | 28 | - | - |
| Clearwater | 3,747 | 545 | 6,300 | 420 | 1,428 |
| Crow Wing | - | - | - | 28 | - |
| Dakota | 32 | - | 56 | - | - |
| Freeborn | - | - | 28 | - | - |
| Grant | - | - | - | 28 | - |
| Hennepin | 352 | - | - | - | - |
| Hubbard | 4,932 | 1,410 | 9,856 | 2,688 | 1,344 |
| Itasca | 64 | - | - | - | - |
| Koochiching | 64 | - | - | - | - |
| Lake of the Woods | 961 | 737 | 4,760 | 56 | 196 |
| Mahnomen | 7,847 | 160 | 2,576 | 532 | 476 |
| Norman | 32 | - | - | - | - |
| Otter Tail | - | - | 84 | - | - |
| Pine | - | - | - | - | 196 |
| Polk | - | - | - | - | 280 |
| Redwood | - | - | 140 | - | - |
| St. Louis | - | 96 | - | - | - |
| Steele | - | 140 | - | - | - |
| Wadena | 32 | - | - | - | - |

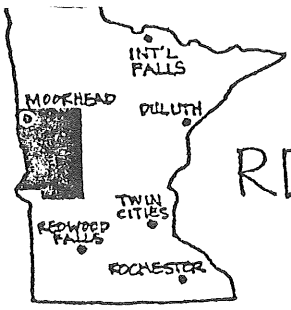



# DISTRIBUTION OF TRAIL ACTIVITY OCCASIONS FROM RDC TO COUNTY

RDC: _____

These figures represent the number of trail users from this RDC to recreate in each county. The figures represent a typical week during the winter of 1977-1978 or the summer of 1978.

| COUNTY | WINTER | | SUMMER | | |
|---|---|---|---|---|---|
| | SNOWMOBILE | CROSS-COUNTRY SKI | BICYCLE | HIKE-WALK | HORSEBACK |
| Aitkin | 14,776 | 1,238 | 8,580 | 1,248 | 1,092 |
| Anoka | - | - | - | 156 | - |
| Becker | - | - | - | 624 | - |
| Beltrami | - | - | - | 1,872 | - |
| Carlton | 7,036 | 10,614 | 34,632 | 936 | 468 |
| Chisago | - | - | 2,184 | - | - |
| Cook | 176 | 1,946 | 4,368 | 2,808 | - |
| Freeborn | - | 352 | - | - | - |
| Hennepin | - | | - | - | - |
| Hubbard | - | - | - | 468 | - |
| Itasca | 18,470 | 6,545 | 21,216 | 1,248 | 3,276 |
| Kanabec | 1,055 | - | - | - | - |
| Koochiching | 7,388 | 1,238 | 624 | 468 | - |
| Lake | 7,564 | 3,342 | 3,744 | 1,248 | - |
| St. Louis | 18,821 | 16,887 | 138,372 | 13,104 | 1,092 |

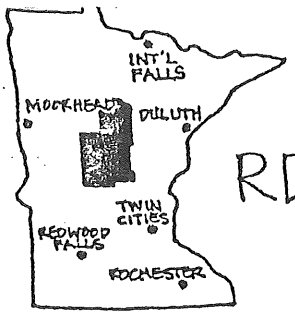



# DISTRIBUTION OF TRAIL ACTIVITY OCCASIONS FROM RDC TO COUNTY

RDC: _____

These figures represent the number of trail users from this RDC to recreate in each county. The figures represent a typical week during the winter of 1977-1978 or the summer of 1978.

| COUNTY | WINTER: SNOWMOBILE | WINTER: CROSS-COUNTRY SKI | SUMMER: BICYCLE | SUMMER: HIKE-WALK | SUMMER: HORSEBACK |
|---|---|---|---|---|---|
| Aitkin | - | 208 | - | - | - |
| Becker | 18,786 | 1,245 | 19,552 | 3,666 | 1,316 |
| Beltrami | - | 208 | - | - | - |
| Big Stone | - | - | 282 | - | - |
| Clay | 6,227 | 1,148 | 40,890 | 470 | 94 |
| Clearwater | - | 104 | - | - | - |
| Cook | - | - | - | 752 | - |
| Dakota | - | - | 846 | - | - |
| Douglas | 2,491 | 1,559 | 23,688 | 2,538 | 2,538 |
| Grant | 208 | - | 1,974 | - | 940 |
| Hubbard | 311 | 1,349 | - | 376 | - |
| Itasca | - | 208 | - | - | - |
| Lake | - | - | - | 1,222 | - |
| Meeker | 104 | - | - | - | - |
| Mille Lacs | - | 104 | - | - | - |
| Otter Tail | 14,531 | 3,321 | 24,628 | 6,110 | 1,128 |
| Pope | 10,275 | 415 | 6,486 | 282 | - |
| Stearns | - | - | 940 | - | - |
| Stevens | 2,387 | - | 12,126 | 846 | 658 |
| Swift | - | 104 | - | - | - |
| Todd | - | - | 282 | - | - |
| Traverse | 208 | - | 3,666 | - | 658 |
| Wadena | - | 104 | - | - | - |
| Wilkin | 2,180 | - | 2,820 | - | - |

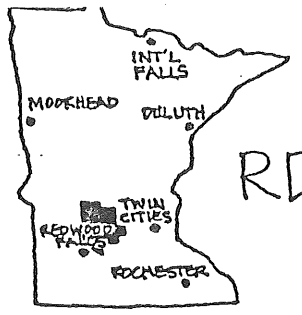



# DISTRIBUTION OF TRAIL ACTIVITY OCCASIONS FROM RDC TO COUNTY

RDC: _____

These figures represent the number of trail users from this RDC to recreate in each county. The figures represent a typical week during the winter of 1977-1978 or the summer of 1978.

| COUNTY | WINTER | | SUMMER | | |
|---|---|---|---|---|---|
| | SNOWMOBILE | CROSS-COUNTRY SKI | BICYCLE | HIKE-WALK | HORSEBACK |
| Aitkin | 261 | 196 | - | - | - |
| Becker | 261 | - | - | - | - |
| Beltrami | - | - | 348 | - | - |
| Benton | 653 | - | 58 | 174 | - |
| Cass | 10,706 | 261 | 6,148 | 1,044 | 986 |
| Chippewa | 131 | - | - | - | - |
| Crow Wing | 19,127 | 2,024 | 17,458 | 3,132 | 2,088 |
| Douglas | - | - | 870 | - | - |
| Hennepin | - | - | 232 | - | - |
| Hubbard | 65 | - | - | 58 | - |
| Itasca | 196 | 65 | - | - | - |
| Kandiyohi | - | - | 406 | - | - |
| Mille Lacs | 653 | - | - | 58 | - |
| Morrison | 5,092 | 588 | 20,300 | 638 | 232 |
| Otter Tail | 65 | 261 | 348 | - | - |
| St. Louis | - | - | - | 1,392 | - |
| Swift | - | - | - | 58 | - |
| Todd | 4,504 | 392 | 13,398 | 1,102 | 174 |
| Wabasha | 65 | - | - | 58 | - |
| Wadena | 3,264 | 1,240 | 4,872 | 232 | 232 |



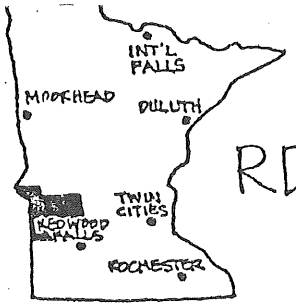

# DISTRIBUTION OF TRAIL ACTIVITY OCCASIONS FROM RDC TO COUNTY

RDC: _____

_____

These figures represent the number of trail users from this RDC to recreate in each county. The figures represent a typical week during the winter of 1977-1978 or the summer of 1978.

| COUNTY | WINTER | | SUMMER | | |
|---|---|---|---|---|---|
| | SNOWMOBILE | CROSS-COUNTRY SKI | BICYCLE | HIKE-WALK | HORSEBACK |
| Blue Earth | - | 59 | - | - | - |
| Brown | 1,655 | - | - | - | - |
| Chippewa | - | - | 371 | - | - |
| Crow Wing | 1,951 | 532 | - | 106 | - |
| Hennepin | - | - | 1,060 | 106 | - |
| Hubbard | 946 | - | - | 53 | - |
| Kandiyohi | 6,206 | 1,005 | 23,691 | 2,756 | 1,007 |
| Koochiching | 59 | - | - | - | - |
| Lyon | 118 | - | - | - | - |
| McLeod | 6,561 | 1,478 | 17,490 | 689 | 212 |
| Meeker | 6,738 | 887 | 24,963 | 1,060 | 477 |
| Murray | 59 | - | - | - | - |
| Olmsted | - | - | - | 106 | 53 |
| Otter Tail | - | - | - | 318 | - |
| Redwood | - | - | - | 106 | - |
| Renville | 2,955 | - | 20,935 | - | 528 |
| Scott | - | 59 | - | - | - |
| Sibley | - | - | 954 | - | 318 |
| Stearns | 473 | - | 1,007 | 106 | 53 |
| Wright | 473 | 59 | - | - | - |

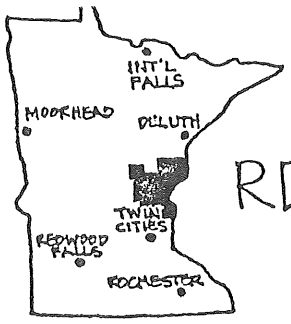



# DISTRIBUTION OF TRAIL ACTIVITY OCCASIONS FROM RDC TO COUNTY

RDC: _____

These figures represent the number of trail users from this RDC to recreate in each county. The figures represent a typical week during the winter of 1977-1978 or the summer of 1978.

| COUNTY | WINTER | | SUMMER | | |
|---|---|---|---|---|---|
| | SNOWMOBILE | CROSS-COUNTRY SKI | BICYCLE | HIKE-WALK | HORSEBACK |
| Big Stone | 1,576 | 107 | 6,798 | 66 | 957 |
| Chippewa | 2,472 | 179 | 13,893 | 2,079 | 330 |
| Douglas | 143 | - | - | 165 | 33 |
| Kandiyohi | - | 179 | 363 | 231 | - |
| Lac Qui Parle | 1,111 | 143 | 10,461 | 1,122 | 33 |
| Lake of the Woods | - | - | - | 198 | - |
| Lincoln | 36 | - | 33 | - | - |
| Lyon | - | - | - | - | 99 |
| Pope | 107 | 143 | - | - | - |
| Ramsey | - | 36 | - | - | - |
| Renville | - | 36 | 1,881 | - | 99 |
| St. Louis | 143 | - | - | - | - |
| Stearns | 358 | 36 | - | - | - |
| Swift | 2,902 | 215 | 10,428 | 627 | 99 |
| Traverse | 36 | - | - | - | - |
| Yellow Medicine | 1,684 | 107 | 12,870 | 726 | 594 |




# DISTRIBUTION OF TRAIL ACTIVITY OCCASIONS FROM RDC TO COUNTY

RDC: _____

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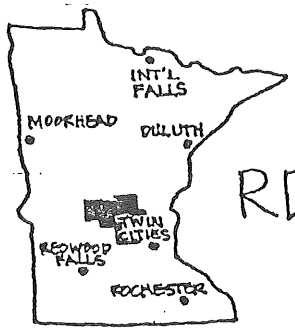
| COUNTY | WINTER | | | SUMMER | |
|---|---|---|---|---|---|
| | SNOWMOBILE | CROSS-COUNTRY SKI | BICYCLE | HIKE-WALK | HORSEBACK |
| Aitkin | 102 | - | 180 | - | - |
| Anoka | 51 | - | 1,395 | 135 | - |
| Benton | - | - | 180 | - | 135 |
| Carlton | 51 | - | 45 | - | - |
| Cass | - | - | - | 135 | - |
| Chisago | 8,553 | 768 | 25,245 | 1,890 | 3,735 |
| Cook | - | - | - | 45 | - |
| Crow Wing | 256 | - | - | 45 | - |
| Douglas | - | - | 1,215 | 45 | - |
| Isanti | 5,890 | 768 | 16,560 | 135 | 1,440 |
| Itasca | 410 | - | - | 45 | - |
| Jackson | - | - | 315 | - | - |
| Kanabec | 3,944 | 717 | 6,435 | 675 | 1,125 |
| Kandiyohi | - | - | 135 | - | - |
| Lake | - | - | - | 360 | - |
| Lake of the Woods | 51 | - | - | - | - |
| Mille Lacs | 3,841 | 205 | 13,635 | 1,080 | 2,430 |
| Pine | 2,663 | 357 | 15,390 | 1,440 | 1,710 |
| Ramsey | - | 51 | - | - | - |
| Saint Louis | - | 102 | - | 180 | - |
| Sherburne | - | 51 | 585 | - | - |
| Stearns | - | - | - | 225 | - |
| Washington | 1,127 | - | 315 | - | 45 |




# DISTRIBUTION OF TRAIL ACTIVITY OCCASIONS FROM RDC TO COUNTY

RDC: _____

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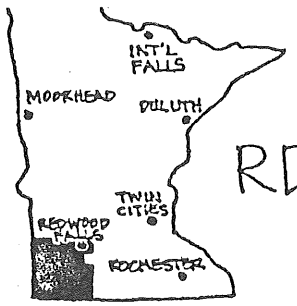
| COUNTY | WINTER | | SUMMER | | |
|---|---|---|---|---|---|
| | SNOWMOBILE | CROSS-COUNTRY SKI | BICYCLE | HIKE-WALK | HORSEBACK |
| Aitkin | - | 925 | - | 196 | - |
| Anoka | - | 347 | 686 | - | - |
| Benton | 925 | - | 9,996 | 392 | 294 |
| Carlton | - | - | 490 | 588 | - |
| Cass | 925 | - | - | 980 | - |
| Clearwater | - | - | - | 392 | - |
| Cook | - | 231 | - | - | - |
| Crow Wing | - | - | - | 196 | - |
| Douglas | - | - | - | 196 | - |
| Grant | 116 | - | - | - | - |
| Hennepin | - | 463 | 98 | 98 | 196 |
| Isanti | - | - | 3,430 | - | 98 |
| Jackson | - | - | 98 | | |
| Lake | - | - | - | 1,078 | - |
| Lake of the Woods | - | 347 | - | - | - |
| Lyon | - | - | 98 | - | - |
| Mahnomen | 231 | - | - | - | - |
| Meeker | 231 | - | - | - | 98 |
| Mille Lacs | 116 | 231 | 784 | 882 | - |
| Morrison | 347 | - | 392 | 686 | - |
| Pope | - | - | 1,666 | - | - |
| Rice | - | - | 98 | - | - |
| St. Louis | - | 116 | 98 | - | - |
| Sherburne | 4,280 | 925 | 27,734 | 4,214 | 1,568 |
| Stearns | 24,406 | 6,593 | 145,922 | 9,310 | 882 |
| Todd | 116 | - | - | - | - |
| Traverse | 116 | 347 | - | - | - |
| Winona | 925 | - | - | - | - |
| Wright | 22,093 | 5,089 | 36,554 | 2,156 | 2,744 |




# DISTRIBUTION OF TRAIL ACTIVITY OCCASIONS FROM RDC TO COUNTY

RDC: _____

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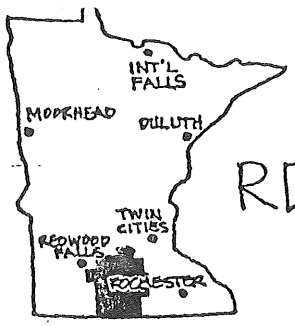
| COUNTY | WINTER | | SUMMER | | |
|---|---|---|---|---|---|
| | SNOWMOBILE | CROSS-COUNTRY SKI | BICYCLE | HIKE-WALK | HORSEBACK |
| Becker | 234 | - | - | - | - |
| Big Stone | - | - | 360 | - | - |
| Brown | 468 | - | - | - | - |
| Cass | 156 | - | - | - | - |
| Chippewa | - | - | 432 | - | - |
| Clearwater | 234 | - | - | - | - |
| Cottonwood | 936 | 78 | 17,712 | 720 | 1,368 |
| Douglas | - | 78 | - | 72 | 72 |
| Faribault | - | - | 72 | - | - |
| Hennepin | 78 | - | 72 | 144 | - |
| Hubbard | 156 | - | - | - | - |
| Jackson | 1,637 | 234 | 10,008 | - | 2,448 |
| Kandiyohi | - | - | - | 144 | - |
| Lake of the Woods | - | - | 72 | 216 | 72 |
| Le Sueur | - | - | 432 | - | - |
| Lincoln | 546 | - | 4,680 | - | - |
| Lyon | 4,912 | 390 | 38,016 | 2,160 | 1,224 |
| Marshall | - | - | 144 | - | - |
| Meeker | 546 | - | - | - | - |
| Morrison | - | - | 1,512 | - | 1,656 |
| Murray | 2,207 | - | 24,912 | 288 | 936 |
| Nobles | 2,573 | 156 | 23,184 | 2,016 | 576 |
| Norman | - | - | 72 | - | - |
| Pipestone | 4,288 | - | 15,120 | 360 | 792 |
| Red Lake | - | - | 216 | - | - |
| Redwood | 2,105 | 390 | 15,696 | 1,008 | 864 |
| Renville | - | - | 144 | - | - |
| Rock | 1,793 | 156 | 11,736 | 144 | 1,296 |
| Swift | - | 156 | - | - | - |




# DISTRIBUTION OF TRAIL ACTIVITY OCCASIONS FROM RDC TO COUNTY

RDC: _____

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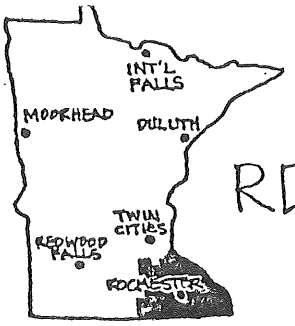
| COUNTY | WINTER | | SUMMER | | |
|---|---|---|---|---|---|
| | SNOWMOBILE | CROSS-COUNTRY SKI | BICYCLE | HIKE-WALK | HORSEBACK |
| Anoka | - | - | 1,150 | - | - |
| Blue Earth | 13,179 | 2,075 | 23,930 | 2,185 | 2,760 |
| Brown | 8,054 | 366 | 18,055 | 1,035 | 690 |
| Carver | - | - | 575 | - | - |
| Cass | - | - | - | 805 | - |
| Cook | - | - | 575 | - | - |
| Cottonwood | 122 | - | - | - | - |
| Crow Wing | - | - | - | 115 | - |
| Douglas | 366 | - | - | - | - |
| Faribault | 488 | 244 | 32,660 | 2,875 | 115 |
| Hennepin | - | 244 | - | - | - |
| Hubbard | 244 | - | - | - | - |
| Itasca | 244 | - | - | - | - |
| Kandiyohi | - | - | - | - | 115 |
| Lac Qui Parle | 244 | - | - | - | - |
| Lake | - | - | - | 1,150 | - |
| Lake of the Woods | - | - | - | 345 | 115 |
| Le Sueur | 2,319 | - | 19,435 | 2,300 | 1,380 |
| McLeod | 122 | - | - | - | 115 |
| Martin | 5,491 | 854 | 31,970 | 4,370 | 230 |
| Meeker | 976 | - | - | - | - |
| Morrison | - | - | 575 | - | - |
| Nicollet | 976 | 244 | 26,190 | 1,265 | - |
| Otter Tail | - | - | - | 230 | - |
| Rice | 122 | - | - | - | - |
| St. Louis | - | - | - | 690 | - |
| Scott | - | - | 2,530 | - | - |
| Sibley | 8,176 | 122 | 11,270 | 575 | 230 |
| Stearns | 122 | - | 115 | - | - |
| Waseca | 5,735 | 122 | 10,695 | 345 | 115 |
| Watonwan | 2,197 | - | 12,995 | 690 | 115 |




# DISTRIBUTION OF TRAIL ACTIVITY OCCASIONS FROM RDC TO COUNTY

RDC: _____

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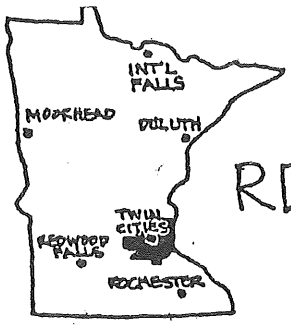
| COUNTY | WINTER | | SUMMER | | |
|---|---|---|---|---|---|
| | SNOWMOBILE | CROSS-COUNTRY SKI | BICYCLE | HIKE-WALK | HORSEBACK |
| Aitkin | - | - | - | 633 | - |
| Benton | 1,381 | - | - | - | - |
| Cass | - | - | - | 422 | 211 |
| Dakota | 230 | - | 2,954 | - | - |
| Dodge | 5,294 | 1,151 | 11,394 | - | - |
| Fillmore | 1,151 | - | 17,091 | 633 | 3,165 |
| Freeborn | 7,595 | 230 | 23,632 | - | 7,807 |
| Goodhue | 8,516 | 230 | 30,173 | - | 633 |
| Hennepin | - | 460 | 1,688 | - | - |
| Houston | 1,841 | - | 17,302 | 422 | 633 |
| Hubbard | - | - | - | 422 | - |
| Mower | 6,214 | 460 | 68,786 | 2,743 | 844 |
| Norman | - | - | 2,110 | - | - |
| Olmsted | 21,174 | 4,833 | 80,391 | 1,477 | 4,853 |
| Rice | 5,294 | - | 15,192 | 2,321 | 2,321 |
| Steele | 7,135 | 1,151 | 39,246 | 1,477 | 633 |
| Wabasha | 460 | - | 25,531 | 422 | - |
| Waseca | - | - | 422 | - | - |
| Washington | - | - | 3,798 | - | - |
| Winona | 4,142 | 230 | 48,791 | 2,110 | 1,477 |
| Wright | - | - | 633 | - | - |




# DISTRIBUTION OF TRAIL ACTIVITY OCCASIONS FROM RDC TO COUNTY

RDC: 11

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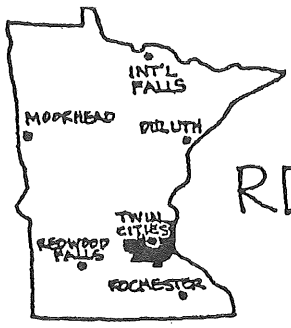
| COUNTY | WINTER | | SUMMER | | |
|---|---|---|---|---|---|
| | SNOWMOBILE | CROSS-COUNTRY SKI | BICYCLE | HIKE-WALK | HORSEBACK |
| Aitkin | 1,815 | 302 | 558 | 5,022 | 279 |
| Anoka | 37,811 | 13,007 | 216,225 | 3,906 | 4,464 |
| Becker | - | - | 5,580 | - | - |
| Beltrami | - | - | - | 558 | - |
| Blue Earth | - | - | - | 837 | 279 |
| Brown | - | 605 | - | - | - |
| Carver | 7,865 | 9,982 | 23,759 | 3,906 | 5,859 |
| Cass | 6,655 | 1,815 | - | 1,116 | - |
| Chippewa | - | - | 1,674 | - | - |
| Chisago | 3,932 | 302 | 4,185 | 1,953 | 558 |
| Clay | - | 605 | - | - | - |
| Clearwater | - | - | - | - | 558 |
| Cook | 605 | 2,420 | 837 | 4,743 | - |
| Crow Wing | 907 | 1,815 | 7,254 | 3,906 | 279 |
| Dakota | 18,452 | 16,637 | 163,215 | 8,370 | 7,812 |
| Douglas | 1,210 | 907 | 558 | 1,395 | - |
| Goodhue | 302 | 605 | - | 558 | - |
| Hennepin | 37,206 | 62,312 | 308,263 | 63,891 | 5,301 |
| Houston | - | - | - | 558 | - |
| Hubbard | - | - | - | 2,511 | 279 |
| Isanti | 605 | - | - | 558 | 558 |
| Itasca | 605 | - | - | 279 | - |
| Kanabec | 2,117 | - | - | 279 | 279 |
| Kandiyohi | - | - | - | 1,674 | 279 |
| Koochiching | 1,512 | - | - | 279 | - |
| Lake | - | - | - | 6,138 | - |
| Le Sueur | - | - | - | 837 | - |
| Lyon | - | 302 | - | - | - |
| Mille Lacs | 2,722 | 907 | 558 | 2,511 | 1,116 |
| Morrison | - | 1,120 | - | 558 | - |
| Mower | 605 | - | - | - | - |
| Nicollet | - | - | - | 1,116 | - |
| Olmsted | 2,117 | - | - | - | - |
| Otter Tail | - | - | - | - | 279 |
| Pine | 605 | - | 3,069 | 1,674 | - |
| Ramsey | 12,080 | 18,149 | 274,815 | 21,483 | 1,953 |
| Red Lake | - | - | 1,674 | - | - |




# DISTRIBUTION OF TRAIL ACTIVITY OCCASIONS FROM RDC TO COUNTY

RDC: 11

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| COUNTY | WINTER | | SUMMER | | |
|---|---|---|---|---|---|
| | SNOWMOBILE | CROSS-COUNTRY SKI | BICYCLE | HIKE-WALK | HORSEBACK |
| Redwood | - | 302 | - | - | - |
| Rice | 302 | - | - | - | - |
| Roseau | 302 | - | - | - | - |
| St. Louis | 6,352 | 907 | 2,232 | 4,185 | - |
| Scott | 7,865 | 2,420 | 44,640 | 2,790 | 2,232 |
| Sherburne | - | - | 279 | - | - |
| Sibley | 302 | 1,815 | - | - | - |
| Stearns | 605 | - | - | 837 | 837 |
| Steele | - | 1,210 | - | - | - |
| Swift | - | - | - | 279 | - |
| Todd | 2,420 | - | 2,232 | - | - |
| Washington | 20,267 | 26,014 | 105,462 | 3,627 | 11,997 |
| Wright | 3,629 | 605 | 837 | 1,395 | 1,116 |