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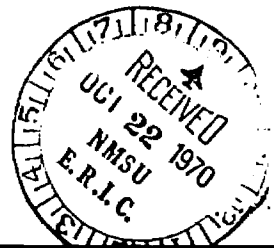
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ABSTRACT

Michigan is widely recognized as a traditional leader in outdoor recreation and tourism. Its location and resources provide many comparative advantages toward attracting visitors. State spending for outdoor recreation amounted to \$95 million over the decade ending in 1960. State and Federal policies and programs are likely to emphasize outdoor recreation and tourism much more than in the past. Of the factors affecting the future of this industry, population of the prime market area may well be the most important. The future population mix will heavily emphasize the demand patterns of the very young and the old. Technological and cultural changes will broaden the range of choice in leisure activities. The greatest shifts in land use are likely to be in areas relatively accessible to metropolitan population centers. The public sector can most strongly influence emerging patterns of development in 2 major ways: indirectly through public regulation of activities, such as careful zoning; and directly via public development of scenic roads, parks, and regional interpretive complexes. Imaginative programs appear crucial if Michigan is to maintain or expand its share of Upper Great Lakes tourism and outdoor recreation in the face of growing competition. Related documents are ED 023 834 and RC 004 843. (AN)

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RESEARCH REPORT

FROM THE MICHIGAN STATE UNIVERSITY
AGRICULTURAL EXPERIMENT STATION AND COOPERATIVE EXTENSION SERVICE, EAST LANSING



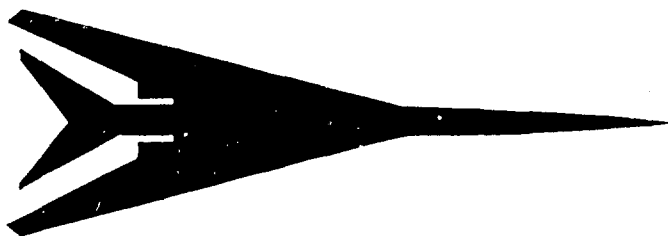
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PROJECT '80

RURAL MICHIGAN
Now and in 1980



RC004846



FOREWORD

THE RURAL SCENE in Michigan is changing very rapidly. Many decisions are being made that require commitments for several years ahead. Long range planning is a must. In order to encourage long range planning and assist the people of rural Michigan in this effort, the College of Agriculture of Michigan State University launched PROJECT '80 in early 1984. PROJECT '80 is a study of the prospects and potential for rural Michigan by 1980.

PROJECT '80 is designed to seek answers to three important questions: (1) What will rural Michigan be like in 1980, *in the natural course of events*? (2) What do rural people and others concerned want it to be like in 1980? (3) What can be done to capitalize on the opportunities, avoid impending problems, or change the natural course of events and redirect Michigan's rural economy toward the goals?

A task of this magnitude has required the time and effort of many individuals. Dean T. K. Cowden, the College of Agriculture, appointed a steering committee composed of the chairman, Dr. L. L. Boger, chairman of the department of agricultural economics; Dr. Raleigh Barlowe, chairman of the department of resource development; Dr. John Carew, chairman of the department of horticulture; Dr. Charles Lassiter, chairman of the department of dairy; Dr. Alexis Panshin, chairman of the department of forest products; and Richard Bell, assistant director of the Cooperative Extension Service. Dr. John Ferris of the Department of Agricultural Economics has been the project director and Mark Allen of the department of information services has been the editor.

The steering committee delegated to selected faculty members the responsibility of preparing some 50 discussion papers covering the many facets of the rural economy—agriculture, agribusiness, forestry, fisheries and wildlife, nursery crops, floriculture, recreation, service industries, and people. Many rural leaders and representatives of businesses directly concerned with the rural economy participated in the project by reviewing these papers, offering sugges-

tions, and submitting ideas for needed programs.

About 200 of these individuals joined 100 campus-based faculty members in a two-day seminar at Michigan State University's Kellogg Center on March 31-April 1, 1985, for such a review. Other meetings have been held for this purpose, including a two-day workshop for the entire faculty of the College of Agriculture and the Extension Service.

It is possible to make use of analytical techniques in the development of long range—a decade or more—projections. However, there are numerous forces impinging upon the future that defy analysis. For this reason, PROJECT '80 researchers have sought the wise counsel and judgment of persons within and outside of the College of Agriculture.

This report is one of a series prepared for PROJECT '80. The emphasis of this report is on answering the first question posed by the project, "What will rural Michigan be like in 1980, *in the natural course of events*?" These are the projections. They are based on certain assumptions, research, and a great deal of judgment. They should not be regarded as inevitable. True, many of the developments projected will occur regardless of or in spite of what is done in Michigan. But at the same time there are forces over which we do have some control. Here people can do something to change the course of events if they act soon enough and if they really want to accept the challenge. In a sense, PROJECT '80 is an early warning device designed to spark action to change some of the projections before it is too late.

A study such as PROJECT '80 can focus on making projections, but the question of goals and actions must be answered by individuals and organizations.

Formally, PROJECT '80 is completed with the publication of these reports. The success, however, depends on what happens after this date—how well it succeeds in bringing the best information available to the attention of rural Michigan and in stimulating people to discuss the future and to plan accordingly.

BACKGROUND ASSUMPTIONS AND PROJECTIONS

Rural Michigan will be a part of a dynamic and interrelated economy between now and 1980. Because of this we must recognize what some of the underlying forces will be. Here are some of the highlights from Rural Michigan — Now and in 1980, Highlights and Summary of Project '80 Research Report 37, Agricultural Experiment Station, Michigan State University.

Between now and 1980 we assume:

- (1) No major war.
- (2) No major depression.
- (3) Inflation of about 1.5 percent per year in consumer prices.
- (4) Average weather and little success in controlling weather.

The population of the United States is expected to increase from 188 million in 1962-63 to about 245 million by 1980, a 30 percent increase. A similar growth rate is projected for the East North Central States and for Michigan. Michigan's population is to increase from 8.0 million in 1962-63 to 10.2 million by 1980. Many of the counties in the Upper Peninsula and Northwest Lower Michigan are not expected to share in this increase; in fact, population in these areas is projected to continue to decline.

Population will continue to shift away from farms and central cities to the suburbs and to rural non-farm residences. A higher proportion of the population will be in the younger and older age categories. The average Michigan resident over 25 will have attained 2 more years of formal education by 1980.

The national economy will have exceeded the trillion dollar level by 1980, enough to provide the population with disposable incomes above \$3,000 per capita (in 1962-63 dollars), more than \$900 greater than in 1962-63. The Michigan economy is projected to grow

at least as rapidly as the national economy, with incomes and wage rates remaining above the U. S. average. (In 1965, wage rates in Michigan were the highest in the nation.)

People will not only be more affluent, they will have more leisure time. The average work week may well be reduced to 4 days. Employees will likely have another week of paid vacation time and more will retire at earlier ages. A larger proportion of the labor force will be women.

With rising incomes, spending patterns will change. Larger proportions of incomes will be spent on "nonessentials;" a smaller proportion will be spent on necessities such as food. The composition of diets will continue to change and people will spend more for processing and marketing services. People will experiment more with new products and will be more easily influenced by advertising and promotion.

The urban sprawl and diversion of farm land to forests, parks and highways will reduce the land in farms by 20 percent between 1964 and 1980. Urban demands will give rise to aggravated ground water problems in many communities. Irrigated farm land will probably double from the present small acreage. Recreational demands will prompt more intensive use of Michigan's lakes and streams, demands for tighter pollution control measures and efforts to zone or police the uses made of public and private waters.

It is within this setting that rural Michigan will perform between now and 1980. How well it performs depends on the natural and economic advantages (and disadvantages) of rural Michigan relative to other areas, the developments in the total Michigan economy, and how well rural people employ their skills and know-how to take advantage of the opportunities.

Michigan's Outdoor Recreation and Tourism— Now and in 1980

By David N. Milstein

DEPARTMENT OF RESOURCE DEVELOPMENT
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ACKNOWLEDGMENTS

Many minds have contributed to the material in this report. Particularly helpful information has been provided by various officials in the Michigan Department of Conservation, the Michigan State Highway Department, and the Michigan Tourist Council, as well as by the authors of several related Project '80 reports.

Substantial aid has been derived from ongoing efforts by the staff of the Michigan Outdoor Recreation Demand Study, directed by David N. Milstein and Leslie M. Reid in the Department of Resource Development, Michigan State University, under a federal grant administered by the Michigan Department of Conservation for the Michigan Department of Economic Expansion. Some of the material on past and current situations, and on future policies affecting outdoor recreation in Michigan has been adapted from materials developed for the Phase II Project '80 paper on this subject by Dr. Reid and co-workers.

Significant portions on the tourist industry in Michigan have been supplied by Dr. Uel Blank, Associate Director, Institute for Community Development, and Dr. Robert W. McIntosh, Professor and Extension Specialist, Tourist and Resort Service, both of this University.

SUMMARY

MICHIGAN IS RECOGNIZED widely as a traditional leader in outdoor recreation and tourism. Its modern role in this dramatically growing industry is affected by a pronounced shift in clientele — from elite vacationers and North Woods outdoorsmen to predominantly urban, middle-class families. Several current studies should begin to shed sorely needed light on the nature and future of this industry. Given the enormous pressures for action, and the very poor record of projections to date, it is more important than ever to take a careful look at the specific spatial

patterns that might emerge under alternative assumptions.

On the demand side, a useful way to organize the information needed for improved managerial decisions — both public and private — is in terms of *inflows* of visitors to destination areas, *enroute flows* along the transportation arteries, and *outflows* from the areas of origin. About half to two-thirds of Michigan's total visitor market is composed of residents of the state. The remainder is almost entirely from the immediately surrounding states and Ontario. The East and Midsouth provide important competition for the regional market. With proper quality of development, additional potential may exist for luring cross-country travelers into Michigan.

On the supply side, we are just beginning to accumulate systematically the minimal information on the location and nature of Michigan's outdoor recreation and tourist facilities. The gross total of public recreation land may amount to almost 7.5 million acres. Employment directly attributable to outdoor recreation and tourism in Michigan may be estimated roughly as the equivalent of 30,000 to 40,000 full-time, \$5,000-per-year jobs. About 5,000 of these would be accounted for by the public sector. The indirect employment generated by these jobs appears to be somewhere between 54,000 and 80,000 jobs.

State spending for outdoor recreation in Michigan has amounted to \$95 million over the decade ending in 1960, or about .75 percent of the state's total expenditures. This spending has been concentrated mostly in fish and game, state parks, and Huron-Clinton Metro Authority facilities. Commercial investments and profits increasingly have been accounted for by the larger, more modern types of tourist enterprises. This trend fits the generally emerging picture of a "quality revolution" in tastes and technology.

Of the factors affecting the future of this industry in Michigan, population of the prime market area may well be the most important. Michigan's population is expected to grow by around 33 percent from

1960 to 1980, and that of the entire East North Central Region by from 25 to 42 percent. If all other forces affecting outdoor recreation and tourist demand just balance each other off — as is deemed fairly likely by the authoritative Outdoor Recreation Resources Review Commission (ORRRC) — this could be the magnitude of Michigan's visitor market growth in general. Specific lines of leisure activity, such as skiing, of course, may grow far faster than the market as a whole. In any event, the future population mix will heavily emphasize the demand patterns of the very young and of the old.

The leading projections of leisure available by 1980 tend to be more evolutionary than is usually assumed, and nobody is too sure how much of the emerging non-work time will be truly discretionary. The typical work week is expected to decline to around 32 or 35 hours, with much smaller gains expected through extensions of holiday and vacation time. Multiple job holding is not expected to be a major determinant of free time, nor hopefully will unemployment.

Whatever the uncertainties in projection, technological and cultural changes alike will broaden immensely the range of choice in leisure activities: where people will go, what they will do, and how often they will seek variety. Enterprises and agencies most able to survive in such markets will be those whose management and capital allow truly modern, diversified, and flexible operation.

Michigan's location and resources provide many comparative advantages toward attracting visitors. There are, however, significant natural disadvantages, and repositories of older facilities and attitudes inappropriate for modern market conditions.

State and federal policies and programs are likely to emphasize outdoor recreation and tourism much more than in the past, but may do so equally as much or more in competing states.

If future demand for visits to Michigan is influenced positively by the expected growth in income, leisure, and mobility — rather than just by population growth and a netting out of the other factors — the total market could grow by 1980 on the order of 300 percent or more. On the other hand, if Michigan just holds its share of the national market growth as alternatively projected by ORRRC, the state's market would expand by around 58 to 71 percent in terms of visitor-days, and by 84 to 110 percent in terms of visitor expenditures. These rates are moderately higher than projected growth in state gross product, and about double the projected growth in state real income per capita.

What are the supply implications of the ranges of possible growth in demand? The greatest shifts in land use are likely to be in areas relatively ac-

cessible to the metropolitan population centers. The total adjustment in public land use, though massive absolutely, generally need not involve critical adjustment problems. Much larger shifts are foreseen with regard to private recreation lands, which may grow from the presently-estimated 1 million acres to 5 million acres by 1980. Since the key sites are likely to be either around good scenery or water or near expressway interchanges, they should not be looked to as sources of salvation for many marginal agricultural lands.

With regard to job adjustments, a recent comprehensive study of the Michigan economy concludes that, to prevent substantial unemployment or out-migration, it must generate more than 860,000 new full-time jobs between 1960 and 1975. If outdoor recreation and tourism in Michigan were to pace national growth, this sector might account for something over 40,000 of these jobs directly, and perhaps 80,000 indirectly; that is, about matching what the automotive complex might contribute to 1970.

The main opportunities for capital and management lie, as has been emphasized, with the larger and better equipped enterprises. Some opportunities remain for the relatively small operator with sufficient management skills, notably in auxiliary enterprises.

The public sector can most strongly influence the emerging patterns of development in Michigan's outdoor recreation and tourism in two major ways: *indirectly* through public regulation of activities, such as careful zoning; and *directly* via public development of scenic roads, parks, regional interpretive complexes, etc. that complement nearby private developments. Above all, the quality revolution that is already upon us will tend to reward far more massive creative endeavors than have been traditional in the state.

Following the lead of places like Colonial Williamsburg, impressive tourist complexes are being built with public and private funds in the East, South and West, as well as overseas. Do we have enough of Interlochen, Mackinac Island, and Fayette to match, say, Gatlinburg, the Land Between the Lakes, Aspen, Palm Springs, or the European hostels in castles? Imaginative programs appear crucial if Michigan is to maintain or expand its share of Upper Great Lakes tourism and outdoor recreation in the face of this growing competition.

THE SETTING

Michigan is recognized widely as one of the traditional and perennial leaders in outdoor recreation and tourism. The state is bountifully endowed with lakes and streams, abundant game and fish, and a variety of outdoor recreation activities spread over the seasons of the year.

The years of prosperity following World War II accelerated a number of important changes that had been taking place gradually in American life since the turn of the last century. Drastic changes in living patterns came about through widespread moves from rural life into urban and suburban neighborhoods. Improved highways, more dependable automobiles, and a latent urge to wander contributed to a revolution in mobility and family travel habits. The new-found affluence resulting from higher family incomes, and the rapid proliferation of available consumer goods, encouraged the formation of new spending habits. A significant portion was assigned to goods and services related to leisure-time pursuits and outdoor recreational activities.

In recent years, interest in outdoor recreation has increased by an unforeseen extent, paralleling the pace of the social changes previously mentioned. Concurrent with these basic changes in American life has been a growing awareness that the provision of adequate opportunities for outdoor recreation is a legitimate and important public responsibility.

Additional secondary effects may also be in prospect due to the changing philosophy among social groups with regard to leisure and recreation as positive values, the percentage of family budgets assigned to recreation, and even the complex of activities and experiences desired by future users of recreation facilities. These and other factors in combination suggest far greater demand for recreation areas and facilities in the future than is evident today.

As attendance increases and recreational conflicts become more critical, and dissident using groups more vocal, national attention is being focused increasingly on recreational use problems. Indications of the relative importance of outdoor recreation on the national scene are the increasing frequency of public announcements, the number of national and regional recreation meetings scheduled, and the growing flood of recreation-associated legislation introduced in the United States Congress.

Today, outdoor recreation is a topic of great concern in a number of diverse fields. Among these are economics, conservation, forestry, and sociology, to name only a few. Studies have been and are presently being conducted with differing focal objectives, such as the exploration of goals and objectives, policy investigations, visitation studies, and resource-capacity studies. Empirical studies conducted by park and recreation agencies are adding still further to the fund of knowledge about outdoor recreation.

THE PAST

Much of Michigan's early outdoor recreation reputation was built on the lure of northern forested

areas for hunting, fishing and vacationing in a scenic, near-wilderness environment. For many decades the state's back-country was the destination for parties of rugged outdoorsmen. The attractiveness of Michigan's streams for fishing and canoeing spread throughout the country, and streams like the Au Sable, Two-Hearted, Sturgeon and Manistee proved an irresistible lure for down-state and non-resident fishermen alike.

Outdoor recreation in Michigan has passed through three distinct transportation periods that shaped and promoted special patterns of recreation (13). The first era was that of the lake steamboats, fast passenger vessels that operated during the summer months in the early 1900s, carrying resorters and tourists quickly and comfortably to locations accessible to the lakeshores. The second was development of an elaborate rail network that opened up premium inland lake areas to resort and summer hotel development. Thus, the early 1900s witnessed the popularity of summer-long northern vacations by tourists and vacationers from Chicago and Detroit metropolitan areas.

The start of an active road building program in 1920, concurrent with the beginning of federal subsidies for this purpose, ushered in the third era of recreation use. Improved roads and automobiles have continually made more of the North accessible to ever-increasing numbers of visitors. Good roads aided the growth in popularity of the two-week cottage vacation, use of private and resort rental accommodations, stag trips, and group purchase of hunt-club areas.

It could be argued that another revolution of equal significance has taken place since 1950. A network of high-speed highways and expressways, complemented by fast, dependable automobiles, finds us in an era of extremely mobile vacations. The vacationer, who formerly could be characterized as an outdoor resident at a single destination for an extended period, can now be more typically pictured as a self-contained traveler, an onlooker or spectator of outdoor scenery and less a participant. As such, this traveler is more independent of resource constraints — if rain annoys him, for example, he can easily move his personal belongings and family hundreds of miles to a more desirable location. The same can be said for dissatisfaction over crowding, lack of fishing or hunting sites or success, etc.

A great deal of outdoor recreation in the past has not been translated into formal reports. Although periodic investigations have been made, these largely have been piecemeal efforts or studies by individual agencies in order to obtain management information. Further, such information has been gathered principally for those activities for which some form of charge or other control has been imposed as a regu-

lation. Other data, where available at all, are typically estimates — useful as approximations.

Attendance figures for National Forest recreation were first widely gathered in 1924. Recreation figures for various activities have been collected by the Michigan Department of Conservation for a longer period (Table I).

Table I—Major recreation activity histories in Michigan, 1920-1963

Year	Attendance (St.Pks.)	Campers (St.Pks.)	Fishing (Lic.Sales)	Big Game (Lic.Sales)	Small Game (Lic.Sales)
1920			52,338	37,147	246,952
1922	244,000				
1923		37,700			
1930			142,940	76,540	334,565
1940	8,387,768	176,680	773,133	177,770	540,564
1950	11,867,793	163,136	1,056,060	385,268	634,906
1955	17,865,346	350,000			
1960	18,144,900	639,122	952,852	460,915	647,989

Source: (13).

Hunting and fishing clubs are so closely allied, by activity and resource character, that a quick look provides another dimension to the outdoor recreation situation. Although widely distributed through the forested northern part of Michigan, club holdings are particularly concentrated in the northeastern part of the Lower Peninsula. A compilation from 1931 tax rolls revealed 169,613 acres included in 220 fish and game clubs (13).

Valid figures showing the extent of commercial recreation activities are more difficult to obtain than for outdoor recreation on public lands. In 1934, the following situation was reported for the Northern Lower Peninsula of Michigan (Table 2).

Table 2—Commercial recreation establishments in the Northern Lower Peninsula, 1934

Resort properties, with residence	3,831 (1931 figures)
Resort properties, vacant	2,879
Summer camps	37
Summer hotels	68
Hunting and fishing clubs	220
Summer resort	670

Source: Records of the Michigan Department of Conservation.

THE PRESENT

To say anything meaningful about the future of an industry, it is essential to know something about how it operates now. For outdoor recreation and tourism — viewed as the complex of land-extensive and leisure-oriented industries serving day-users and overnight stay travellers — knowledge of this type is sorely lacking. Research on these industries is everywhere in its infancy. Definitions are barely settled. Official statistics remain to be gathered in a useful way. Adequate special surveys have just begun to accumulate.

Spatial aspects compound the problem. Even if we thought we knew, for example, how many more

travellers to rural Michigan there might be in 1980, this in itself would not be a guide as to *where* the visitor impacts would take place or where the corresponding investments should be made.

The 246-page report and twenty-seven study reports issued by the Outdoor Recreation Resources Review Commission (ORRRC) in 1962 mark an ambitious but still exploratory beginning toward some of the needed answers. Massive follow-up studies are under way at various offices of the newly-created Bureau of Outdoor Recreation, and in related federal agencies.

In Michigan, several major federally-aided studies are under way that will shed further light on selected aspects of outdoor recreation and tourism:

A. Michigan Outdoor Recreation Demand Study

Department of Resource Development, Michigan State University: a systematic, quantified view of present and possible future use patterns for activities of particular interest to the Michigan Department of Conservation in its role as an owner and manager of more than 4 million acres of land.

B. Michigan Tourist Industry Study

Center for Economic Expansion and Technical Assistance, Central Michigan University: survey research and other techniques for more accurate measurement of the volume and economic impact of tourism in Michigan.

C. Upper Peninsula Tourism Development Project

Cooperative Extension Service, Michigan State University, and Upper Peninsula Committee for Area Progress: research and action on the demand for and supply of recreational resources and facilities in this region.

D. State Agency Studies

A detailed inventory of present and potential public sector facilities, by the Conservation Department; a study of the state transportation system by Arthur D. Little & Co., consultants to the Highway Department; and a program of demographic and economic studies by the Office of Economic Expansion.

Finally, certain Census materials — such as the 1963 Census of Transportation and the 1963 Census of Business — are just becoming available. These, while allowing some recent updating of industry trends, cannot answer adequately many of the basic questions requiring special further study.

Demand

A significant common denominator in independent studies made of recreational participation is the phenomenal growth in attendance. The increase has been amazingly consistent and widespread over a

period of years, excluding the period of World War II when attendance figures fell sharply. Future growth repeatedly has been underestimated, even by the best informed people in the recreation business. As an example, the National Park Service in July, 1956, launched a 10-year development program known as "Mission 66" based on the estimated 80 million visits expected in the target year of 1966 (42). In actuality, the National Park Service reported 79,040,000 visits in 1961, with 5 of the 10 years yet remaining.

In like manner, the United States Forest Service announced a comparable five-year program entitled "Operation Outdoors" in January, 1957 (39). This comprehensive development program was intended to meet the requirements of 66 million recreation visits expected by 1962. The conservatism apparent here is even greater when viewed against the record 102 million visits to the national forests in 1961 and the 120 million visits in 1962.

The attendance figures found in Table 3 compare a number of representative federal recreation programs.

Table 3—Estimated recreation visits to selected federal properties, United States 1950-1960

Agency	1950	1960
National Park Service	32,780,000	72,288,000
U.S. Forest Service	27,368,000	32,595,000
Bureau of Reclamation	6,594,000	24,300,000
Corps of Engineers	18,000,000	108,000,000
T.V.A.	18,645,000	42,349,000

Source: (10).

Other examples of fantastic recent growth are provided by boating, skiing, and the provision of lake access sites. Recreational boating, for example, has grown so rapidly that it has become a major industry in its own right. In 1947 there were about 2.5 million recreational boats in America. By 1960 this number had increased to over 8 million boats. Michigan's 3,000 miles of Great Lakes shoreline, 11,000 inland lakes, and 36,000 miles of streams are ample reason for the 558,000 recreational boats reported in 1960. Mass growth is shown by the fact that inboard cruisers and yachts have decreased as a percentage of the total, and the average outboard horsepower has increased each year.¹

With regard to skiing, a 1962-63 survey reveals the sport presently is growing in popularity at a rate rivaling boating and camping. Nationally, the number of skiers doubled three times between the 1951 and 1964 ski seasons (2).

The phenomenal growth in lake access sites provided by the Michigan Department of Conservation is shown in Table 4.

Table 4—State lake access sites in Michigan, 1940-1960*

Year	No. of Access Sites
1940	3
1950	452
1960	747

*Outside state parks and forests

Source: Michigan Department of Conservation, Biannual Report, 1962.

Still, we must be extremely careful interpreting even something as obvious as these growth rates. In the case of boating, for instance, the U.S. Coast Guard Michigan registration statistics for 1961-64 (Table 5) — over a period long enough to allow for the three-year cycle of registration — show a generally downward trend!

Table 5—Michigan boat registrations, 1961-1964

Year	Outboard	Inboard	Total Registered
June, 1961	350,307	26,370	376,677
June, 1962	381,549	24,214	405,763
June, 1963	254,309	18,687	272,996
June, 1964	318,700	23,184	341,884

Source: Michigan Department of State, Boat Registration Bureau.

Even where it is clear that a selected type of outdoor recreation or tourist activity is growing, the really important questions for planning purposes are: By how much? For how long ahead? Where? When will the growth rate level off, slacken, or turn downward? When will the qualitative aspects of industry growth change significantly, and in what ways?

The basic issue in relation to Michigan's rural potential in recreation and in tourism by 1980 is that, given the enormous pressures for action, it is far easier to grasp at various "guesstimates" currently being offered than to take a more careful look at what specific patterns might emerge under alternative assumptions.

Exceptionally poor knowledge need not imply inaction. It suggests, rather, that we explore much more critically the ranges of possibilities inherent in some of the specific statistics and broad trends of which we are aware. Truly flexible plans, in the sense of recognizing the very large "engineering tolerances" involved, may prevent some severe allocation errors with regard to where land is acquired, additional capacity installed, or area development expectation built up.

Three brief examples of this issue may suffice. First, there are figures by Clawson, suggesting that outdoor recreation demand might expand about four times between 1956 and 2000 for user-oriented areas, 16 times for intermediate areas, and 40 times for resource-based areas such as outstanding national parks (5). In the excited discussions generated by such large estimates of expansion in use, few people have stopped to consider the many qualifications

¹Boating registration statistics obtained from Michigan Department of State, Boat Registration Bureau.

cited by Clawson himself in advancing such figures. Fewer still appear to have noticed the sharply different acreage expansions advanced later by the same author, i.e., about sevenfold growth for user-oriented, eightfold for intermediate, and only about a third more for resource-based areas.

Very different goals and techniques of land use planning are implied by these latter figures. Even these contrast significantly with the often-stated fixed-technology method of calculating future recreational land needs on the basis of 45 federal and state owned acres per thousand of population. Aside from certain clear cases of inadequate shoreline, for example, the "crisis" may not even be predominantly one of land (52).

Similarly, it is by now virtually "conventional wisdom" that America is in the midst of a culture boom, paralleling that in outdoor recreation. Yet we are aware of no studies that attempt really to estimate how much leisure time would be siphoned off from — or intertwined with — outdoor recreation demand by the growth in cultural activities. Nor is it even clear that there is quite the boom in culture that has been touted so widely (7).

Finally, we may consider the case in which acknowledged experts attempting to measure the volume of tourist expenditures in the Upper Peninsula of Michigan for 1960 derived estimates as different as \$85 million and \$131 million. A later researcher, with insufficient time to appraise the reasons for this difference, had to resort merely to averaging the two figures. Nor is there clear agreement for recent years as to whether Upper Peninsula tourist business, whatever its magnitude, has been going up or down.

A complete measurement framework for the demand aspect of outdoor recreation and tourism would cover daily, weekly, seasonal, and annual demand patterns for each activity organized according to the three possible phases of observation. That is, there would be:

- (a) *inflow* information for the various types of public or commercial destination areas;
- (b) *enroute* information on flows along transportation links; and
- (c) *outflow* information on characteristics of visitors and nonvisitors by geographic area of origin.

If we knew this much of *what* was happening, we could go on to attempt to know *why* it was happening. Ideally, this would involve a model of the entire system that could be used for various simulation experiments on the effects of adding or removing elements such as roads or parks, changing parameters such as fees, or varying projections such as future populations and their attributes. A useful

definition of the system would have to include, of course, origins and destinations inside and outside of the state. All we have so far, however, are fragmentary observations on such a system. Some of these bits and pieces may not even be consistent.

Inflows

It would be useful, for a start, to know at least total visitor loads on Michigan destination areas, by activity or by facility. For federally administered areas, we can get acceptable attendance figures in the special case of Isle Royale National Park, but only vague estimates for the Wildlife Refuges and nothing reliable on National Forest use in Michigan. The richer set of attendance figures over the years at Michigan state parks — after allowances are made for introduction of the paid sticker system and many other special considerations at individual parks — is subject to some time-series analysis, now under way as part of the Michigan Outdoor Recreation Demand Study.

Cross-section analysis is possible on the presumably more reliable recent data on state park use. The first map (Fig. 1), shows total attendance — day use and camping — for each of the 63 state parks in 1962. It is obvious that two parks, Grand Haven and Holland, are most intensively used. Grand Haven had a reported attendance of 1,120,496,

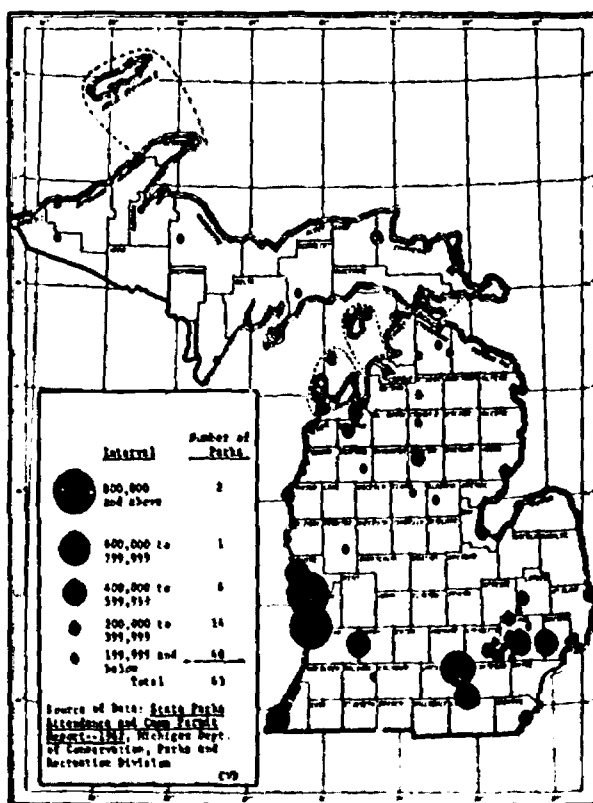


Fig. 1. Total attendance, Michigan State Parks, 1962

while Holland had an attendance of 946,700, on 48 and 43 acres respectively. Thus the capacity for enjoyable outdoor recreation experiences was far surpassed.

Figure 1 also shows the intensive use of state park and recreation areas surrounding the Detroit Metropolitan area — particularly Waterloo, Rochester-Utica, Dodge No. 4, and Hayes State Park.

The high attendance at these recreation sites is to be expected, especially if it is pointed out that there were about 4,322,000 people living within 50 miles of Rochester-Utica. Fortunately, the larger size of these recreation sites (with the exception of Dodge No. 4 at 136 acres) provides for a dispersal of visitors and, hopefully, a more enjoyable outing. One can imagine how many dissatisfied persons there might be if there were only three or four parks in southeastern Michigan, rather than the present 17 state-operated sites plus those of the Huron-Clinton Metropolitan Authority.

The high attendance at Holland and Grand Haven also shows the role of location. Both parks are within 50 driving miles of more than 680,000 people including those in the urbanized areas of Muskegon and Grand Rapids. Notice, for instance, that Ludington State Park, the fourth park north along the Lake Michigan shore from Grand Haven, has a much

lower attendance. This park contains a potential day use recreation population of 64,000 within 50 miles. At 3,000 acres, it is a much larger park than Holland or Grand Haven, but is evidently beyond the effective distance and driving time for much day use.

Figure 2 shows the number of camper days — campers per party times length of stay per party — at each state park and recreation area in 1962. This map indicates that camping use is spatially quite dispersed. Six parks — Holland, Interlochen, Waterloo, Ludington, Higgins Lake and Yankee Springs — all had more than 80,000 camper days. Several demand patterns are shown in Fig. 2 such as the preference for camping at parks located on the Great Lakes and located near or within established resort areas such as Interlochen and Traverse City, or at the Straits of Mackinac.

The intensive use of parks located along I-75 in the northern Lower Peninsula suggests that these parks may be used as overnight stops along this major north-south artery. With the exception of the Waterloo State Recreation Area and Hayes State Park in southeastern Michigan, the parks and recreation areas in this part of the state are not used intensively for camping.

There are many reasons for this, and only a few

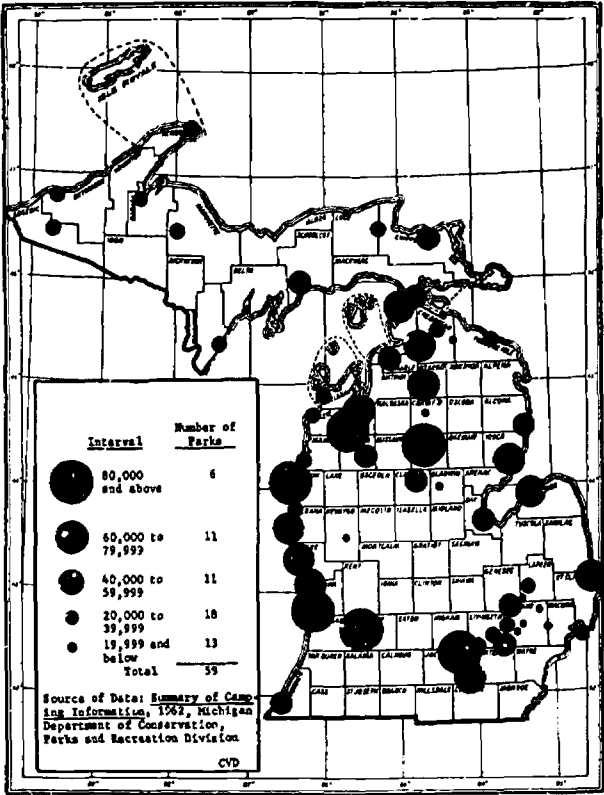


Fig. 2. Camper days, Michigan State Parks, 1962

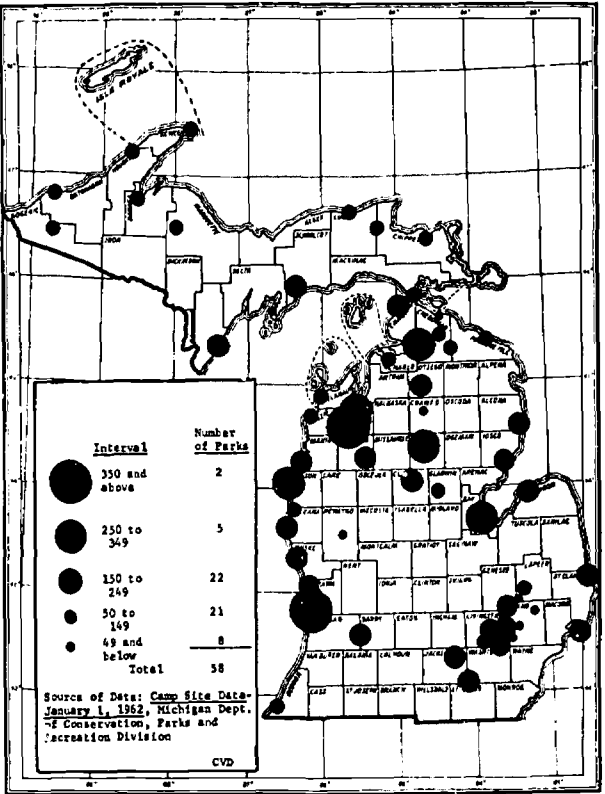


Fig. 3. Number of designated campsites, Michigan State Parks, 1962

explanations can be mentioned. These sites are concentrated, which spreads the camping load in this area. They are not easily accessible from major trunk lines, and a majority of the sites are in recreation areas and therefore have not been developed with modern amenities such as flush toilets and showers. In addition, southeastern Michigan sites are used by the metropolitan residents for day use, and when an overnight camping trip is anticipated these people may desire to travel farther north or west to camp in different surroundings.

Figure 3 provides a very limited insight into the camping opportunity at each park by showing the number of campsites available in 1962. The actual attraction of a particular camp setting depends, of course, on such additional factors as availability of specific activities and modern conveniences, quality of local land and water resources, and location. Quantitative analyses of these factors and others are in progress as an aspect of the travel behavior models in the Michigan Outdoor Recreation Demand Study.

Camping demand in relation to supply is shown in Fig. 4, depicting use intensities for this activity at state parks and recreation areas in Michigan. The ratio between camper days and the total number of campsites at each site provides a measure of load

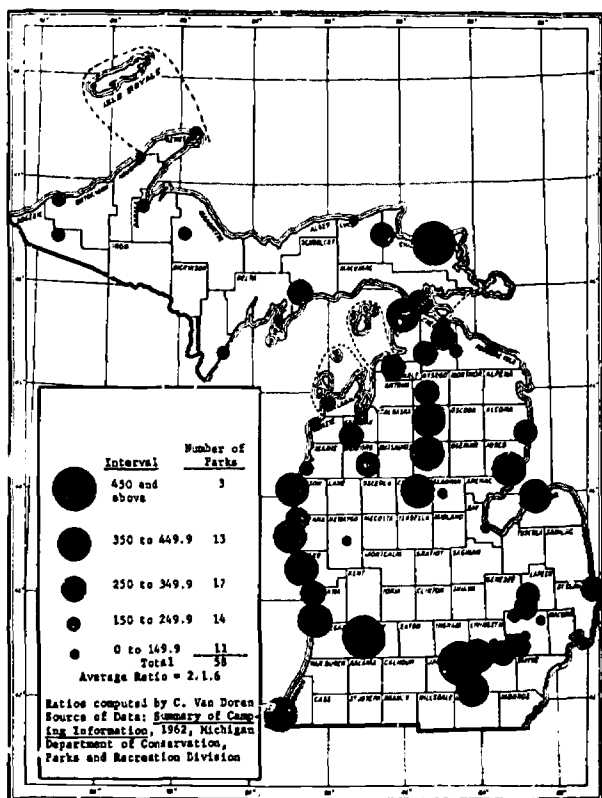


Fig. 4. Ratio of camper days to designated campsites, Michigan State Parks, 1962

capacity relative to use; places that are heavily used can be pinpointed. In southeastern Michigan, for example, Waterloo State Recreation Area receives the highest use intensity relative to the available campsites of any park in the system.

Fig. 3 shows that some recreation areas in this region have more campsites than Waterloo, but do not receive the camping use that is evident at Waterloo. If other places with a high ratio of camper days to campsites are analyzed, it is possible to make some basic judgments as to why they are popular. Brimley, for example, has the second highest ratio, possibly as a result of its location near the Soo locks. Yankee Springs is an example of a relatively large state recreation area, similar to Waterloo, located between the two large metropolitan centers of Grand Rapids and Kalamazoo-Battle Creek.

Higgins Lake is located on one of the finest inland lakes in Michigan and is the heart of a thriving resort area. This park has been expanded and the number of campsites almost doubled since 1962. Wilderness State Park, near the Straits of Mackinac, may have a high ratio because it is located adjacent to this north-south gateway. In addition, it may be the northern terminus for those not wishing to pay the bridge toll.

These types of maps provide opportunities for speculation on the dynamics of the system, as well as insights into additional methods for analyzing the system. Information of this type, when combined with knowledge of population growth patterns, allows us better to foresee future areas of intensive use, where additional parks may be needed.

For the private sector, however, reliable information as to the total load on the system — let alone the spatial distribution of use — is almost entirely lacking. Pending better measurements from studies such as that being done by Central Michigan University, we must rely on extremely rough indirect indicators such as the sales tax method pioneered by McIntosh or the aggregate figures estimated from AAA data by the Michigan Tourist Council.

On the question of where the visitors to Michigan come from, the evidence is significantly better. For the state as a whole, and at any specific destinations that have been studied, all studies agree that the present tourist-recreation market derives mainly from residents of Michigan. In Table 8, the much lower percentage from Michigan reported in the Highway Center study is undoubtedly due to the gateway positions of these centers, and the fact that the interviews sampled only those unfamiliar enough to have stopped for tourist information. Other differences are due in part to differences in coverage and sampling errors, and to directional biases such as most inflows of Chicago people to the Upper Peninsula occurring

Table 6—Origins of visitors to Michigan (percent)

Origin	Straits Bridge 1961	UP			Highway Centers Summer 1963	Tourist Survey 1957
		Campers 1960	Motels- Hotels 1961	1958		
Michigan	66.6	55.4	51.1	55	23.5	32
Illinois	4.2	11.0	12.9	13	17.1	40
Wisconsin	4.9	10.8	12.1	10	9.1	
Ohio	5.1	5.0	4.5	14	12.1	
Indiana	3.4	4.1	3.9		8.2	
Minnesota	2.2	4.2	5.9	8	3.0	28
Canada	9.2	2.9 ^(A)	2.9		9.8	
Others	4.4	0.6	0.7		17.2	
TOTAL	100.0	100.0	100.0	100	100.0	100

Sources: Highway Centers data from Michigan State Highway Department, Tourist Information Service, Characteristics of Tourists Using Tourist Information Centers, 1963. All others as cited in (27).
(A) Ontario only.

via the western land entrances rather than the Straits Bridge.

The table also indicates that almost all of the non-Michigan visitors to the Upper Peninsula, and a major portion of non-residents to anywhere in Michigan, originate from the remainder of the East North Central Region. The suggestion that the state's overall attraction to tourists tends to be strong mainly as a regional rather than a national market has important implications. It suggests which clients we should project in any analyses of future markets. It says much also as to the main regions that would tend to compete with Michigan for these inflows.

An example of the type of inflow information that has been obtained recently by direct measurement is shown in Fig. 5, which shows leading origin areas of

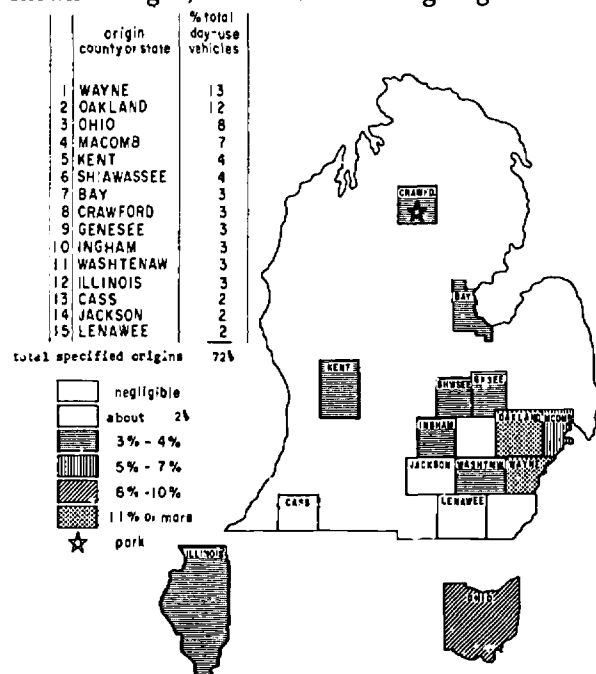


Fig. 5. Leading origin areas of day-use visitors to Hartwick Pines State Park, summer 1964

day-use visitors to Hartwick Pines State Park, in the center of the northern Lower Peninsula. It is of interest from a marketing and fiscal viewpoint that 32 percent of such visitors were from the Greater Detroit area.

From a behavioral point of view, however, when these visits are calculated as a participation rate per 10,000 of origin area resident population, this particular inflow turns out to be relative under-representation. Ohio users are somewhat ahead of those from Illinois, unless the former tend to take the shoreline route or go directly to Michigan via Wisconsin. Finally, local use by residents of Crawford County — though extremely high as a participation rate — is a relatively quite minor source of congestion.

Enroute

A large amount of data has been collected by the Michigan Highway Department regarding travel patterns on roads in the state. Real analysis, however, is just beginning. Daily average highway flows show relatively little in relation to the seasonally peaked tourist traffic flows. Some idea of these flows can be extracted soon from the huge accumulation of origin and destination data obtained by the Mississippi Valley Multiple Screenline Survey. Complications arise, though, since detail on trip purpose is lost via compilation in only two categories: social-recreation and vacation. More important, the interview stations and times of observation were spread in a pattern not particularly appropriate for present purposes. Similar data are available from a significant number of metropolitan area traffic studies, ranging from communities the size of Cadillac or Battle Creek to major cities such as Detroit and Chicago.

Much more direct information on tourist traffic is contained in the Tourist Information Center studies, which have just been extended to include socio-economic and route data for a limited sample of those who stopped at the centers.² Supplementary materials should be available reasonably soon from the elaborate seasonal surveys run by Central Michigan University. For the limited but growing class of tourists who travel by air, the Michigan Department of Aeronautics has accumulated an impressive amount of information on all scheduled and private interstate flight patterns that begin, end, or include a stop in the state. Analysis of these data is in an early stage.

For projection purposes, it would be useful to include some idea of the future route network for the state and region. Highway Department plans and projections to 1980 are available.

²See, for example, Travel Information Service, Tourist Travel in Michigan — 1964 (Lansing: Motorists Services and Reports Division, Michigan State Highway Department, December 1964).

Outflows

A reasonable amount of information is available concerning visitor characteristics and preferences. Even here, however, more than usual caution must be observed. In the voluminous statistics gathered in the ORRRC *National Recreation Survey*, for instance, the one in 29,600 sampling ratio meant that 1,270 persons were interviewed throughout the 12-state North Central region. Detailed results for the region, then, may well not be applicable to Michigan. Another hindrance to attempts at generalization is that behavior and preferences apparently vary a great deal by type of activity.

Extremely little is known about the travel destinations of Michigan residents headed out of the state for business or pleasure. An example of the possible size of nearby effects is provided by Dorman's estimate, based on Dominion Bureau of Statistics figures, that Michigan motorists accounted for at least 14 million visitor days in Ontario during 1962 (9).

Inflow studies for other states also can be used for some estimation of Michigan residents' outflow patterns. A 1961 report on travel to Florida, for instance, indicates that Michigan residents accounted for around two or three percent of the total inflows; that is, less than proportional to the state's more than four percent of U.S. population. Similarly, according to recent U.S. passport applications, the population of the North Central region as a whole fails to account for a proportional share of overseas travel by Americans.

The findings on visitor behavior that are most relevant to supply adjustments relate to facility qualities and prices. A strong upgrading process appears to be at work, in the sense that cost of trips, distances traveled, equipment purchased, etc., all tend to rise noticeably with income or related variables. In Michigan, for example, for the first time in history total trailer camping has surpassed total tent camping. The one stable element, at least up to 1980, is that automobiles are still likely to be the mode used in more than 90 percent of tourist trips.

Various surveys also indicate a lessening role of price considerations in comparison with quality aspects of area and facility. This reaction is by no means universal, as is shown by the views of Upper Peninsula visitors, unless they meant price in relation to quality. Nor is it likely to be true for the sharply rising numbers of camper days in free or low-cost public recreation areas, where the price relative to commercial accommodations may well be the dominant influence. In general, however, the fancier facilities tend to be strained toward capacity. The lure of the simpler activities tends to be fading among the general population (54).

Supply

The first step in any analysis of supply aspects of outdoor recreation and tourism in Michigan would be to have a clear idea of what sorts of areas and facilities exist, where they are, their age and capacity, etc.

For public sector areas other than those administered locally, the detailed inventory should be completed reasonably soon. For the private sector, we have little more than McIntosh's 1962 estimates of 30,000 commercial establishments serving vacation needs (35), and unanalyzed categories of tourist oriented enterprises for selected counties. The figures to be presented in the following pages tend to be only fragments of what should be known soon in order to do a proper job of industry management or promotion.

Land

In recent tabulations, Michigan is credited with 7,433,000 acres of public land.³ However, not all of these lands are used or usable to any significant extent for outdoor recreation. Barlowe (1) lists approximately 1,416,000 acres of this land as managed primarily for recreation.

Official figures indicate that 1,745,620 acres of non-agricultural forested wildland were under fence in 1960, principally in northeastern lower Michigan. As of 1963, approximately 200 acres per day were being fenced, down from a high of 232 acres per day in 1960.⁴

Table 7—Michigan recreational acreage and estimated attendance—1960

Agency	Units	Acreage	Estimated Attendance
National Park Service	Parks—1	539,339	6,000
U.S. Forest Service	Forests—5	2,553,703	n.a.
Bur. Sport Fish & Wildlife Refuges	—5	104,298	96,000
Total Federal Acreage—		3,197,338	
Mich. Conservation Department	Parks—73	182,541	18,144,900
	Forests—23	3,764,468	n.a.
	Game Units—57	197,391	n.a.
	Access Sites—672	42,013	n.a.
Mich. Highway Department	Roadside Parks—118	2,700	n.a.
Total State Acreage—		4,189,116	
Local, Non-Urban	114	46,549	n.a.
Total Local Acreage—		46,549	
Total Public Recreation Land—		7,433,000 acres	

Source: Michigan Conservation Department. Attendance figures listed n.a. are not available.

Jobs

If we may accept the Michigan Tourist Council figures on total visitors and their expenditures in the state, some idea may be ventured as to the amount

³Data obtained from various Michigan sources and *Parks for America*, a nationwide compilation prepared by the National Park Service in 1964.
⁴Figures obtained from the Michigan Department of Conservation.

of employment generated thereby. Rough estimates of the portion of the \$800 million or so expenditures that remains in the state, applied along lines indicated in the Pictured Rocks study (27), yield perhaps 30,000 to 40,000 full-time \$5,000 per year jobs in Michigan directly attributable to tourism. Approximately 4,000 to 6,000 of these jobs would be in the Upper Peninsula. To estimate the proportion of the total accounted for by the public sector, we may take the 1,320 (80 percent of its staff) judged by the Conservation Department to be involved directly in outdoor recreation; add 1,500 Highway Department employees (30 percent of its staff), and about 1,800 local park system full-time equivalents; and allow some for various federal employees. The result would be perhaps 5,000 of the total current employment attributable to the public sector. Improved estimates, of course, would be highly desirable, and may be forthcoming soon from work being done by the regional office of the Bureau of Outdoor Recreation. As to the indirect employment generated by the direct employment in tourism, this has been estimated at about 54,000. An upper limit multiplier of two would give rise, of course, to an estimate of 60,000 to 80,000.

Capital

For the public sector, estimates provided to ORRRC indicate that direct outdoor recreation outlays by state agencies over 1951-60 amounted to \$95 million, or about .75 percent of Michigan's total state expenditures of \$12.6 billion over the same period. The ratio dropped from .91 percent in 1951 to .67 percent in 1960. Table 8 shows the distribution of the outdoor recreation expenditures by agency and function.

Table 8—Distribution of direct outlays for outdoor recreation by Michigan Agencies and Functions, 1951-1960 (\$ thousands)

Agency	Function			Total
	Land	Development	Operation	
Parks and Recreation	568.0	4,541.7	19,108.2	24,215.9
Fish	708.8	2,565.8	15,599.6	18,874.2
Game	4,592.8	1,587.7	13,789.1	19,969.6
Forestry		36.6	522.8	559.2
Highways		897.0	4,262.6	5,159.6
Water Resources	7.8	1,995.5	1,318.9	3,322.2
Huron-Clinton	4,602.3	10,818.5	7,478.0	22,898.8

Source: (32)

In the private sector, comparable totals are not known. Considerable evidence strongly suggests, however, that the main opportunities for commercial investment lie with large, professionally-managed enterprises likely to require metropolitan region financing (30, 11, 18). A Minnesota report, for example, concludes that "the usual resort is not typically attractive either as an investment (at cost price)

or as a means of ensuring a high return for the personal services of the owner and his family."

Several studies show highly different survival rates and rates of return, favoring the larger and more modern motel and hotel enterprises. Of approximately 62,000 motels in the U.S., the 3,000 or so affiliated with chains or referral groups account for roughly *twice* their share of the total rooms and up to *two and a half* times the rate of return on capital typical for hotels. There is also some evidence that, aside from exceptionally strong tourist regions, many of the remaining investment opportunities of this sort will be in urban rather than rural areas.

Enterprises

Periodic tourist surveys have been made by various agencies investigating the size and character of commercial activities. These include summer resorts, dude ranches, winter resorts and ski areas, tourist roadside attractions, farm recreation enterprises, and family and group membership clubs.

Government figures tend to be deficient in the area of small service enterprises such as are typical in the tourist industries. To test the adequacy of their coverage, and possibilities for intercensal data at relatively low cost, an interesting experiment soon will be feasible.

Census of Business data for 1963 can be compared with statistics which have been derived for the Upper Peninsula Tourism Development Project through meetings with local experts who filled out elaborate inventory questionnaires. In any event, to obtain a reliable estimate of the size and composition of the tourist business in Michigan, the important issue is to distinguish local from non-local clientele; that is, to perform an *economic base* type of analysis.

Meanwhile, Census data for the private sector and National Recreation Association Yearbook data for part of the public sector allow a revealing analysis of supply adjustments that have been taking place in various counties. Changes in numbers of establishments, employees, receipts, budgets, acreages, etc. can be charted both as shares of and as shifts in relation to corresponding changes at the state, regional, or national level.

From 1958 to 1963, for example, Michigan lodging establishments — hotels, motels, tourist courts — accounted for a steady 28 percent or so of the East North Central region's lodging establishments, 18 percent of the region's lodging receipts, and 13 percent or so of its lodging payrolls.

The State's total lodging enterprise receipts over this period, though growing by 30 percent, exhibited a net downward shift, in the sense that they failed to grow as rapidly as the 37 percent U.S. rate.

Lodging receipts in Ingham County, on the other hand, dropped by 14 percent over this interval, for a total downward shift of 51 percent as compared with the U.S. growth in this category. This extra relative decline accounted for a total drop of \$1.6 million in direct income to the County, as compared with what it would have earned if it had been able to keep pace with the national growth rate in lodging receipts.

In the Tourist Industry Business Survey now being undertaken in the Upper Peninsula, tabulations for Schoolcraft County indicate a total of 52 cottage resorts in this one county alone. The period of rapid construction of these types of facilities was between 1945 and 1955. However, an increase in the business of only one of these 52 was reported for the past five years. Of the remaining ones, 25 indicated approximately a stable business for the last five years, and 25 had a declining business. One did not report. The cottage resorts have an average of only a little over six rental units per business.

The motel and tourist court building boom was approximately 5 to 10 years later than the cottage resort building boom in Schoolcraft County, most of it occurring between 1950 and 1959. There are 39 such businesses now operating in Schoolcraft County, with an average of approximately 12 rental units. Only three of nine reported increased business over the past five years.

Food services fared slightly better in Schoolcraft County with approximately one-fourth of the total of 49 reporting an increase in business over the past five years. This can hardly be considered as encouraging, however, and food businesses like the others are comparatively small businesses.

While resorts, cottages, motels and food services are by no means all of the tourist businesses, they indicate a measure of the problem of small size and difficulty in competing, particularly in the northern part of Michigan. The situation is probably intensified in the metropolitan parts of the state. In an informal summary of the situation done recently by researchers familiar with the Upper Peninsula, it was estimated there are approximately 1,500 lodging businesses. Of this number, only about two that started as small single-family businesses show indications of ability to continue growth.

The main future roles for the small businessman in these industries, then, lie in auxiliary enterprises such as service stations and gift shops, rather than in direct competition with the chains or other large operations. For such smaller operations, Michigan operating figures are estimated to be as follows:⁵

	Service station	Restaurant	Hotel	Motel
Net profits on sales	\$553,688	\$150,000	\$300,000	\$100,000
Average investment	\$ 50,000	\$150,000	\$300,000	\$100,000
Net profits on sales	.80%	.50%	6.5%	18%
Typical gross sales/firm	\$140,000	\$ 50,000	\$ 90,000	\$ 20,000

The difficulty that small firms — often part-time operations — have surviving is demonstrated by many studies. One recent Missouri report indicates that 30 percent of the total restaurant operations in the state fail each year (3). The top 10.5 percent of the firms accounted for approximately 45 percent of total sales. The smallest 50 percent of the firms accounted for only 13 percent of the total sales volume. A conclusion from this study, but not written up as a part of it, was the desirability of limiting entry into the industry through a licensing system.

FACTORS AFFECTING THE FUTURE

Population

The most important determinant of Michigan's future potential in outdoor recreation and tourism may well be how many people will be living in the state's prime market area. We have already seen, in Table 6, that the bulk of this market consists of the state's own population, and that almost all of the rest is from the other states of the East North Central region.

Table 9—Selected alternative projections of Michigan and East North Central Region populations (millions)

Area	1950		1960		1976-80		1950 to 1976-80
	Nos.	% of US	Nos.	% of US	Nos.	% of US	Projected % Growth
Michigan	6,372	4.21	7,823	4.36	A 11,615 B 10,377 C 10,003	5.05 4.23 4.23	48.5 32.7 27.9
ENC Region	30,401	19.99	36,224	20.19	A 51,294 B 50,023 C 46,672 D 45,442 E 39,038 F 47,271 G 49,529 H 47,743	21.20 20.67 21.52 20.79 19.99 19.99 20.19 20.19	41.6 38.1 28.8 25.4 35.4 30.5 36.7 31.8

Sources: ORRRC Study Report No. 23, pages 13-15, and estimates by Dr. J. F. Thaden, Institute for Community Development, Michigan State University, based on Census Current Population Reports, Series P-25, No. 286 (July 1964), Table 2.

Methods: Michigan — A: ORRRC judgment model; B and C: Census projections B and C.

ENC Region — A-D: ORRRC projections assuming, respectively, high population growth with high and low migration and low population growth with high and low migration; E-H: 1950 and 1960 percentages of U.S., respectively applied to Census projections B and C.

How many people, then, are likely to be living in the state and region by 1980? A reasonably likely range of answers is presented in Table 9 where estimate B for Michigan is the generally accepted projection for use in Project '80 reports. The implications of these numbers for outdoor recreation and tourism in Michigan will be traced further later in this paper.

⁵Private studies made by Robert W. McIntosh.

Another important population characteristic has to do with age structure. Almost one-quarter (23.6 percent) of the 1980 Michigan population, for example, will be in the 15 to 19 age group, and 56.9 percent will be under 30 years old.⁶

Leisure

How much leisure will these people have for undertaking trips in Michigan? Serious quantitative study of leisure — as distinguished from broad conjecture about it — is quite recent. Existing data allow only fragmentary, aggregative treatment of present leisure patterns, and little more than rough guesses as to the future. Estimates in this area thus must be of even rougher magnitude than usual. We do, however, have a reasonable sense of the leading elements involved in a useful analysis.⁷

What: We would like to know the amount of time people would have available during which they might demand outdoor recreation services in rural Michigan. A less direct impact occurs to the extent that free-time activity elsewhere affects demand for goods produced in rural Michigan. For either purpose, the conceptually correct approach is to subtract from gross total time the periods committed to work (gainful employment) and to non-discretionary leisure (sleep, personal care, shopping and work journeys, household care, etc.). The problem is complicated by the fact that leisure time is supplied and used in discrete chunks of weekday, weekend, and vacation hours (57). Its allocation among these possibilities determines the types and amounts of demands on different types of facilities and regions: i.e., whether the major leisure impacts will be on destinations local, intermediate, or distant with respect to the main areas of origin.

Who: Even if we restrict our attention to leisure as a generator of outdoor recreation demands on rural Michigan, it is clear that the relevant population is all persons who may conceivably visit in or around the state. This as we have seen includes residents of Michigan, the surrounding Midwestern states, Ontario, and — to a lesser degree — people elsewhere. The clients may be of four broad types:

Households: individuals and families on trips, outings or vacations.

Voluntary associations: trade conventions, camp and tour groups, etc.

⁶Percentages derived from "Projections of the Population of the United States and of Michigan in 1980," Phase I, PROJECT '80, by Dr. J. F. Thaden.

⁷The sources of leisure projections are found in (5, 51, 54). These sources should be consulted for some insight into the technical bases for the projections, and for explicit statements of the usual cautions which must accompany such long looks ahead. The ORRRC projections, incidentally, are all stated as for 1976. It is this writer's view that adjustment of such figures to a 1980 basis would not be worth the effort. It would, in fact, be spurious precision. For more general background, see (8, 15).

Enterprises: conferences or business side-trips.
Government-sponsored groups: school classes, military personnel, youth training or conservation teams, etc.

Though it cannot be treated here, attention also should be directed to the supply of leisure estimated to be available specifically to Michigan's rural population. This will, of course, be a function of the productivity and commodity market assumptions made elsewhere in the Project '80 studies. This aspect of the total leisure situation — through its effects on participation in leadership structure, on education potentials, and on local recreation — may well be a crucial determinant of the quality of life in these rural communities.

Leisure and the Life Cycle

The Young: Recent trends, likely to persist, have been for typically later labor force entry for most of the youthful population, save for a significant proportion of high school dropouts and semi-skilled. The marked amount of leisure time for these latter groups, including involuntary leisure through unemployment, is well on its way to becoming a major social crisis.

Of the college-age population, around 40 percent are at present enrolled for higher education. Continued-trend estimates for 1977 would put this ratio at about 60 percent, and some venture that it will rise at a much faster rate. The precise role of college students as participants in recreation markets is not known, except for the obvious weekend and vacation clustering of their more limited free time and the increased complexity of activities pursued.

The Labor Force: Labor force participation rates have been fairly stable for some time, at about 58 percent of the total population. Gainful employment of men in their productive years has tended to hover near 95 percent, but may not continue to do so if the emergent manpower-automation crises materialize. Female participation rates past the college years have been over 40 percent and rising, except for some signs of increased numbers of years off for childbearing.

The Retired: Growing retirement benefits and changing job requirements have been producing earlier retirements, generally. Lengthening life span and earlier retirement have meant a doubling of the average retirement time for men, from almost three to almost six years. A continued trend would result in approximately 7.5 retirement years for men in 1980, and obviously a much higher figure if geriatric advances occur as rapidly as now seems likely. Labor force participation rates for men 65 years old and over are expected to be reduced to around 25 percent, with a corresponding figure of 10 percent for women in that age group.

Labor Force Leisure

Work Week: For the entire U. S. labor force, the approximately 70 hour work week typical in 1850 declined to about 44 hours in 1940, and is now estimated to be a bit over 40 hours. Throughout this period agricultural work weeks, while remaining significantly higher, have exhibited similar declines. Conservative projections indicate for 1980 an average work week lasting at most 32 to 35 hours.

Holidays and Vacations: For the entire economy, the present average paid holiday time appears to be about six days. Estimates of paid vacation time range from one to two weeks, with much higher figures for workers covered by union contracts and a strong tendency for seniority increases. 1980 projections indicate an increase in paid holiday time to roughly 8.5 days per year, and an extension of the average paid vacation time to between 2.5 and 2.8 weeks per year. Large blocks of vacation time, however, allow much more flexibility in what one does with leisure as compared with small daily increments that might amount to the same total time.

Part-Time Jobs: The evidence is unclear as to the future roles of part-time and dual job holders. Increasing skill requirements outside of automated jobs suggest a stronger role for the full-time employee, but a more flexible future work pattern may feature more part-time opportunities. Our knowledge of multiple jobholding suggests that it is restricted largely to the 25- to 44 year-old, married substandard income receiver, and restricted generally to about 15 percent of total employment. Whether this sort of group will still be with us in 1980, under conditions of much higher dollar incomes for even the substandard, cannot be known.

Unemployment: Optimists suggest that future unemployment can be held to roughly 4 percent of the labor force. There is strong, growing evidence that present pressures of technical change could lead to doubled—and possibly even tripled—unemployment rates in the absence of concerted social action or social change.

Conventional projections appear to assume that this problem will be dealt with reasonably well by 1980, possibly through the shortened work week cited above. Any such adjustment would vary considerably in its impact by labor force skill levels. There are broad indications that the major "leisure class" would be the unionized and the less skilled workers. Except as relieved by the computer, the professional and technical person would be busy, maybe even busier than ever.

Variations

By Industry: Expectations are for variations in leisure availability by industry to lessen, but still persist in

about the present pattern. Hours worked per week in 1980 would be about 15 percent higher in agriculture than for all industry, and somewhat below average in the construction and service trades. Length of paid vacations would average highest in government employment, and remain quite low in agriculture.

By Region: Depending on industry mix, different regions of the U. S. are expected to experience somewhat different decreases in typical hours worked per year. The labor force of greater Chicago, for instance, might gain an average of 146 leisure hours per year by 1976, while the equivalent gain in greater Atlanta would be on the order of 109 hours per year. Given the ranges of error in all such projections, however, and noting the relatively small variations now between Michigan work weeks and the U. S. average, one might doubt that such refinements are worth applying to a 1980 leisure model.

By Season: Government experts foresee no important changes in the present distribution of vacation time, of which about two-thirds occurs during the peak three summer months. More imaginative assumptions with regard to affluence, tastes, and technical change would severely modify this view. By 1980, significant numbers of vacationists might well join the present avant-garde in flying to warmer climates in winter, and so on. Changes now being discussed in the utilization of schools could cause significant shifts in timing of the markets for family trips with school children.

Projections

To what will all of these forces lead? A sample of the explicit expectations of the leading authorities on the future of leisure in the United States is given in Table 10.

Table 10—U. S. leisure projections

Item	Unit	Clawson		ORRRC	
		1956	1980	1960	1976
LEISURE					
Avg. work week.....	Hrs./Employee	40	32	38.5	35.4
Discretionary leisure	Hrs./Week	30	38	N.A.	N.A.
Paid vacation	Wks./Employee	1.0	2.5	2.0	2.8
Paid holidays	Days/Employee	N.A.	N.A.	6.3	8.5
SELECTED DETAILS ORRRC Estimates of Changes from 1960-1976					
Average Weekly Work Hours,		Due to			
Vacations and Holidays		Decrease in Reduced			
or Employee — by		Hours Worked	Work	Increased	Increased
Major Industry Divisions		per Year	Week	Vacations	Holidays
TOTAL		161	127	21	11
Agriculture		146	124	8	7
Mining		156	121	22	11
Contract construction		166	140	15	9
Manufacturing		146	108	24	12
Transportation & public utilities		156	116	26	12
Wholesale and retail trade		166	135	19	11
Finance, insurance, etc.		166	132	21	11
Service and miscellaneous		146	116	18	10
Government		156	110	27	14

(Continued on next page)

Table 10—U. S. leisure projections (continued)

Average Weekly Work Hours, Vacations and Holidays per Employee — by Major Occupational Groups	ORRRC Estimates of Changes from 1960-1976 Due to			
	Decrease in		Increased	
	Hours Worked per Year	Reduced Work Week	Vacations	Increased Holidays
TOTAL	161	127	21	11
Professional and technical	156	110	29	15
Managers, officials & proprietors	187	139	30	14
Clerical workers	156	121	21	12
Sales workers	156	128	18	9
Craftsmen	156	122	21	11
Operatives	166	134	20	11
Service workers	189	167	14	7
Farmers	146	125	8	7
Laborers	182	157	15	9

Sources: (5, 51).

Whatever the errors of magnitude or timing in the conventional models based on continuing trend assumptions plus some judgment, a broad qualitative difference in future leisure is evident. Technological and cultural changes alike will tend to broaden immensely the range of choice in leisure activities: where people will go, when they will go, what they will do, and how often they will seek variety. Enterprises and agencies most able to survive in such markets will be those whose management and capital allow truly modern, diversified, and flexible operation. These requirements bode poorly for the relatively small, inexperienced type of rural recreation enterprise.

Travel

More than 95 percent of non-urban outdoor recreation travel is undertaken in automobiles. Something like this percentage may well persist to 1980. Therefore, the relative location of the recreational resources in a state and of its expressway network is critical in shaping the future of outdoor recreation. For 1959, ORRRC estimated that 50 percent of Americans took vacations involving automobile travel of more than 500 miles. By 1976 it is expected that the average American will travel 2,600 miles per year more than the 4,170 miles of intercity travel experienced in 1960.

The Michigan State Highway Department reports that its share of the interstate expressway system will be completed by 1975. In all likelihood, Michigan will, by that date or shortly after, be involved in construction of a complementary scenic highway road network. Highway Department projections estimate the average annual intercity travel per car in 1980 will be approximately 10,000 miles. Estimates are that by 1980 the expressway network will be carrying 220 percent of the volume of traffic served in 1962, and that other primary state trunks will in 1980 carry volumes averaging 180 percent above the 1962 level.

Expected trends nationally in recreational travel are shown in Table 11.

Several factors can be cited as advantages that favor Michigan's outdoor recreation position. A list-

ing would certainly include the popular image of Michigan as "the North." This image is enhanced by the character of the more than 7 million acres of public lands and waters.

The abundance of water cannot be over-emphasized -- whether in the form of the surrounding Great Lakes, numerous inland lakes, or flowing streams. Other important aspects of these forests and waters are the recreation potential of the fish and game that inhabit them. In comparison with the northern portions of Michigan, Minnesota and Wisconsin, the rural portions of Illinois, Indiana, and Ohio could be characterized generally as flat to rolling countryside having limited inherent recreational attractiveness. Residents of these states traditionally have sought their recreational experiences in northern Michigan. Michigan's early leadership in construction of efficient, tollfree expressways and the Mackinac Bridge increased this use.

The diversity of Michigan's scenic resources constitute an important recreational magnet. The state contains a wealth of unique natural features such as sand dunes, waterfalls, and beaches. Further, the majority of these features are located in an area that is largely pollenfree and which offers cool summer temperatures and large expanses of open space that provide a dramatic change and relief from urban conditions. Another important advantage is to be found in the four-season character of Michigan's recreation, all within fairly easy reach of approximately 40 million persons by a network of excellent high-speed highways.

In contrast to the above, several factors could be cited as comparative disadvantages. By reason of its peninsular geography, Michigan is to a considerable extent inaccessible for out-of-state visitors. A 400-mile radius centered on St. Louis, Missouri, for example, demonstrates that residents of this general area cannot reach the scenic areas of northern Michigan or Wisconsin in an equivalent amount of driving time.

Table 11—U. S. recreational travel projections

		Clawson		ORRRC	
		1966	1980	1960	1976
Distance travelled	Miles/Capita	2,000	3,500	1,290*	1,730*
Vacations*	Miles/Capita	N.A.	N.A.	780	1,080
Trips*	Miles/Capita	N.A.	N.A.	190	260
Outings*	Miles/Capita	N.A.	N.A.	320	400
(*Persons 12 years old and over.)					
Time away from home	Days	N.A.	N.A.	14.6	18.1
Vacation	Days	N.A.	N.A.	6.4	8.0
Trips	Days	N.A.	N.A.	2.0	2.6
Public area visits					
User-oriented	Visits/Capita	5.8	8.3	N.A.	N.A.
Intermediate	Visits/Capita	1.8	5.0	N.A.	N.A.
Resource-based	Visits/Capita	0.7	3.1	N.A.	N.A.
Occasions					
Vacations	Nos./Capita/Yr.	N.A.	N.A.	0.61	0.77
Trips	Nos./Capita/Yr.	N.A.	N.A.	0.85	1.10
Outings	Nos./Capita/Yr.	N.A.	N.A.	6.20	7.50
Expenditures					
1960 \$/Cap./Yr.		N.A.	N.A.	75	117
Vacations	1960 \$/Cap./Yr.	N.A.	N.A.	52	84
Trips	1960 \$/Cap./Yr.	N.A.	N.A.	10	15
Outings	1960 \$/Cap./Yr.	N.A.	N.A.	13	18

Sources: (5, 51).

This fact becomes more significant when a 400-mile radius is similarly centered on the Great Smokey Mountains National Park. Assuming similar transportation facilities, this arc shows that the major metropolitan areas of central and southern Illinois, Indiana, and Ohio are located closer to attractive recreation areas in Tennessee, Kentucky, and West Virginia than comparable locations in Michigan. Still further afield large numbers of Michigan people tour the Rocky Mountain States and western national parks every year, and it is reported that Michigan provides more visitors to Colorado ski resorts than any other state outside of Colorado.

A second important factor closely related to the existence of the surrounding Great Lakes is an extremely unpredictable weather pattern that often results, for example, in rainy and cold summers. Although poisonous snakes and insects are a lesser problem than in some other areas, occasions arise when black flies, for instance, become serious enough to cause a mass exodus from recreational areas.

Other features included in such a listing could be the crowded facilities and turnaways at public parks, excessive fees for some services, the imposition of restrictive regulations such as separation of uses and assigning of space and dog control in parks, and the dissatisfactions caused by poorer-than-expected success in fishing or hunting, or the regarding of game seasons and fish seasons as excessively short.

Some factors that have worked to Michigan's disadvantage are amendable to correction. For example, Michigan is regarded in some quarters as just now emerging from an era of run-down and outmoded tourist and resort accommodations. Further, some quarters of the state traditionally have expressed a suspicion of or dislike for tourist visitors.

Income, Tastes, and Technology

Disposable income in the United States will increase at an annual rate of 2.54 percent between the present and 1976. Annual household disposable income will increase from an average of \$6,574 in 1959 to a constant-dollar average of \$10,350 by 1976. Of the various components of personal expenditure involved in these disposable income figures, the portion devoted to recreation will probably increase from around 5.8 percent in 1950 to perhaps as much as 16.2 percent by 1976. By 1976, 26.7 percent of the population will most probably be included in the \$10,000 to \$14,999 income bracket (51, 54).

Changes in tastes, desires, and preferences at the cultural or societal level are involved. This area has not been explored much in any quantitative manner. Instead, assumptions usually are made that social patterns and human wants in the future would be of much the same type as evident today, or that this is

likely to be true at least in the relatively short period through 1980. However, it is well to consider the recent explosive popularity of, say, discotheques, drag strips, and square dance clubs. Too little is known concerning the latent popularity of family, neighborhood, or community leisure activities to predict that they will have no great impact on future outdoor recreation.

During the primacy of "wildland" recreation, hunting and fishing — so called sportsman's activities — were dominant. Lands for these uses received a minimum of managerial investment, in order to fit the "roughing it" tastes of largely-male hunting and fishing parties. Recent years have witnessed a shift to family-oriented outdoor recreation. This latter period has been characterized by greater recreation investments in comfort and convenience facilities for family groups.

Still another development is the recent emphasis on providing facilities for the large numbers of youthful visitors. This is an obvious recognition of the needs expressed by a youthful population. As a group, this population segment exhibits characteristics that have important implications for development and administration of recreation areas. The group tends to be highly mobile and action-oriented, is fairly affluent, is often impatient and difficult to please, susceptible to fads and temporary whims, and tends to chafe under tight regulation.

Over the years, technological advances have had continuing impact upon outdoor recreation. It might be said that, as a general rule, participation has been promoted by increases in comfort and convenience, safety and personalized attention. These might be further categorized as improvements in transportation, equipment, facilities, and accommodations. Examples of transportation improvements could include the increase in popularity of skiing with general adoption of ski tows; also, the rise in numbers of bush vehicles, tote-goats and sno-cats in hunting areas, and the growth in boating with the advent of dependable outboard motors.

Viewed from the supply side, management developments have made equally great strides. Land engineering capability has increased tremendously through the use of a variety of earth-shaping construction equipment. Man now has the ability to reshape the environment within broad limits to suit his recreational purposes. Consequently, earthmovers are used today to fill low, poorly drained areas, bulldozers to remove knolls, draglines to excavate channels and beach areas, and pneumatic sluices to remove organic deposits from silted-in lakes and bogs.

Recreation land in the future will be custom-engineered for many purposes to a greater extent than possible with the constraints imposed by natural fea-

tures today. The significant point is that this will mean much land now having only limited recreation use will have increased development potential.

Doubtless the next 15 years will see additional catering to the wants and desires of outdoor recreationists by alert and responsive manufacturers. Recent innovations have provided more convenient means of transporting persons and belongings to heretofore inaccessible locations. This seems to be the charm of the tote-goat, sno-cat, or bush-buggy. Projecting these characteristics, we may suspect dramatic changes in the ability of recreationists to explore new recreational frontiers.

Two possibilities quickly come to mind. One is the mass adoption of some form of personal air-borne transportation. This might take the form of individual units in the form of a "rocket-pak" or unitized helicopter. It might combine air-ground-water capability, as already seen in amphibious and wheelless automobiles.

Another and possibly more easily envisioned development might be the extension of scuba diving to complete self-contained underwater movement in the form of a small personal powered craft. Small one and two-person submarines with diving capabilities to 150 feet are presently being marketed in this country in the \$3,000 retail price range as European imports. The implications for administration of recreation lands contained in the possible establishment of new uses such as those outlined above are enormous, and could be expected to pose managerial problems similar to the dislocations and conflicts resulting from popular shifts to trailered, high-horsepower outboard motorboats.

The trend in equipment continually seems to favor comfort, safety, convenience and the growth in specialty or custom items and activities. Tents go to trailer camping plus gadgets, swimmers to scuba equipment, and hunters and fishermen to overseas jaunts. This "quality revolution" may mean that rural Michigan cannot capture a very great share of the growing total outdoor recreation market. What can be captured is likely to require very special public and private efforts, involving markedly higher orders of entrepreneurship.

State Policies and Programs

The amount and character of outdoor recreation in Michigan in the future will be determined by programs already in existence and future programs and developments that may not now be in existence. The Michigan Department of Conservation currently is undergoing substantial reorganization. Dramatic changes in programs and resource management are changing the character of available outdoor experiences. For example, it is only since 1950 that deer

hunting with bow and arrow has become established, and less than 10 years since special antlerless deer seasons were established. The Fish Section of the Michigan Conservation Department recently has announced the introduction of kokanee salmon in Michigan waters. The Forestry Section recently helped complete a cross-Michigan horseback riding trail from Grand Traverse Bay to Lake Huron.

The future of Michigan's outdoor recreation depends very much on the legislative climate as it reflects the needs and desires of the people of Michigan. It is generally agreed that natural resource management and public outdoor recreation is receiving a much more sympathetic hearing in recent years than had been true in the past.

The funding of state programs, or participation in federal programs such as the Land and Water Conservation Act, depends in a very real sense on support provided by the Michigan Legislature. In a similar way, recreation opportunities available in the future depend on decisions made by the Michigan Conservation Commission with regard to departmental policies, objectives, and regulations.

Another factor of importance in Michigan's competitive position is the amount of publicity and promotional activity given a state's recreational resources. Many states have recently expanded appropriations to tourist promotion agencies.

Recently the Illinois legislature enacted a unique program of matching local funds for promotion on a regional level. Table 12 summarizes recent tourist promotion expenditures by various states.

Table 12—Selected state tourist-promotion expenditures

State or province	Year	Amount
Ontario	1960	\$2,400,000
Wisconsin	1962-63	420,000
Illinois	1963-64	500,000
Indiana	1963-64	47,000
Ohio	1963-64	1,678
Kentucky	1963-64	706,928
W. Virginia	1963-64	194,600
Pennsylvania	1962	927,000
New York	1963-64	1,045,683
Michigan	1963-64	548,360
Michigan	1962-63	119,000

Source: Figures provided by Michigan Tourist Council, December 14, 1964.

Differential rates of expansion in various states' outdoor recreation programs might well prove to be another competitive force having a significant impact on Michigan's outdoor recreation situation. Table 13 compares the current outdoor recreation expansion programs in a number of states with that in Michigan. The source of financing ranges from general bond issues to revenue bond issues and earmarked receipts.

Regular legislative appropriations made by selected states and Ontario in 1950 and 1960 for state park programs plus related data are shown in Table 14.

Table 13—Recent state financing of public park expansion programs

State	Amount	Term in Years
Wisconsin	\$50-60 million	10
New York	125 million	10
Pennsylvania	70 million	10
Michigan	5 million	25
W. Virginia	7 million	10
Kentucky	10 million	3

Another recent development was the organization in 1964 of the Michigan Association of Rural Recreation Enterprises. Its initial meeting attracted 150 persons — principally rural landowners — who expressed an interest in the development and operation of commercial outdoor recreation facilities on rural lands. Although it is too early to assess the significance of farmer-financed commercial recreation businesses, this activity has been promoted actively by the U. S. Department of Agriculture. Similar groups recently have been organized in other states.

Still another area that will affect Michigan outdoor recreation is the disposition of significant blocks of rural land resources presently in industrial and corporate ownership. The eventual status of lands now owned by the Consumers Power Company on the Manistee and Au Sable Rivers is a case in point. Policies with respect to other major landholders in the north such as the Celotex Corporation, Cleveland Cliffs, M. A. Hanna, and Calumet and Hecla are other examples.

Federal Policies and Programs

Although circumstances inside Michigan will have a great deal to do with the ultimate character of future outdoor recreation, this is by no means the entire picture. Actions taken outside Michigan also will have a discernible impact upon outdoor recreation within the state. It may well be that the next 15 years will see massive federal programs started, not always directly associated with outdoor recreation, but which may promote outdoor recreation in areas other than Michigan. The program in Appalachia is one example of federal interest that, at least for now,

geographically excludes Michigan. Other examples of non-outdoor recreation emphases might be massive allocations of federal funds for urban redevelopment, education, or the development of Western water resources.

Outdoor recreation in Michigan also will continue to be influenced by federal outdoor recreation activities in the state. Examples include the U.S. Forest Service appraisal of a solid ownership of approximately 20,000 acres in the Upper Peninsula for acquisition. The Forest Service has also made policy decisions regarding the establishment of various visitor information services.

Another recent development is the consideration by the Forest Service of lanes that will accommodate snow-cat vehicles to assist the visitor in further penetrating forest wildlands. Another example is the acquisition interest expressed by the National Park Service in several Michigan locations, notably the Sleeping Bear Dunes, the Pictured Rocks area, and possibly the Huron Mountains.

Probably the federal program with the most far-reaching implications for Michigan outdoor recreation is the Land and Water Conservation Fund Act, which provides matching funds assistance for planning, acquisition, and development of state and local outdoor recreation areas. At the present time, the U. S. Bureau of Outdoor Recreation is preparing a unified national outdoor recreation plan. Completion of this work will greatly simplify comparisons of state outdoor recreation programs.

A LOOK AT THE FUTURE

Demand

In the absence of a true behavioral model of the complete system, what can be said about the probable future of tourist-recreational inflows to Michigan? One widely-used method of getting a rough lower-limit approximation is based on the mechanical — but statistically supported — assumption that per-capita use will stay constant. If so, total visitor-days in

Table 14—Selected state park data

State or Province	Acres of State Park Lands—1960	Regular Legislative Appropriation		State Park Attendance		St. Approp. per Acre of State Park Lands '60
		1950	1960	1950	1960	
Michigan	182,541	1,455,789	2,432,891	12,463,577	19,105,440	13.30
Wisconsin	22,391	374,003	678,365	3,232,069	5,363,948	30.30
Illinois	80,000	1,142,632	2,232,296	10,888,230	8,378,571	27.60
Indiana	52,703	161,129	316,084	2,323,174	2,864,311	5.99
Ohio	84,542	388,018	1,530,883	6,293,002	18,481,937	18.11
Kentucky	26,155	250,000	275,000	2,041,753	4,400,500	10.51
W. Virginia	43,458	137,300	525,440	1,416,145	1,940,413	12.09
Pennsylvania	204,311	1,216,278	1,776,459	8,786,722	22,751,411	8.69
New York	186,060	6,917,252	11,961,348	22,875,076	34,489,699	64.28
Ontario	3,481,158		1,772,743		7,820,994	0.51

Source: Parks for America, 1964; and State Park Statistics, 1951 and 1961; both published by the National Park Service, U.S. Department of the Interior.

Michigan could be assumed to grow at the same rate as the population either of the state or of the entire region from which most of the state's trade is drawn (49). That is:

$$\text{Demand}_{1976-80} = \text{Demand}_{1958-60} \times \frac{\text{Population}_{1976-80}}{\text{Population}_{1960}}$$

Even this simple a method is subject to several variations, as shown in Table 9, which yield notably different results. It may be seen from the table, then, that the constant per-capita visit-rate assumption could lead to projections for Michigan of an increase in visitor-days ranging from 25 to 42 percent.

A second mechanical type of model, equally widely used (49), is considered likely to lead to a maximal estimate of aggregate visitor-days. Here the assumptions would be that population, income, leisure and mobility factors interact multiplicatively, each with coefficients arbitrarily assumed to be one rather than estimated econometrically. That is:

$$\begin{aligned} \text{Per Capita Demand}_{1976-80} = & \text{Per Capita Demand}_{1958} \times \frac{\text{Income/Capita}_{1976}}{\text{Income/Capita}_{1957}} \\ & \times \frac{\text{Leisure}_{1976}}{\text{Leisure}_{1958}} \times \frac{\text{Mobility}_{1976}}{\text{Mobility}_{1958}} \end{aligned}$$

Leisure-time will be on the increase between now and 1980, just as it has been since the turn of the century. According to ORRRC projections, the average U.S. work week will drop to somewhere between 32 and 35 hours by 1976. Over the same period, it is expected that paid vacations will increase from the 1 to 2 weeks in 1960 to 2.5 to 2.8 weeks by 1980. Holiday time will also be rising, increasing nearly 50 percent from 6 days per year in 1960 to 8.5 days per year in 1980.

Using the Michigan B population projection in Table 9, ORRRC Study Report 19 projections of the change in income per capita for Michigan (in constant 1959 dollars), and projections from the same source of the change in U.S. adults per car as a measure of mobility, we may develop at least two quite different results according to whether we take the leisure change to be represented, respectively, by the projected work-week decline or by the projected increase in vacation time for the region. On the former assumption the visitor-days increase by 266.7 percent; on the latter by 356.9 percent.

Finally, what if we assume that Michigan just holds its own with respect to national trends in outdoor recreation and tourism as projected by ORRRC? The estimates for the U.S. are that total visitor-days will increase around 58 to 71 percent over the period 1960-76. Visitor expenditures (in constant dollars) are expected to grow on the order of 84 to 110 percent.

These aggregate growth rates are moderately higher than projected growth in state gross product. This model implies, then, impressive but hardly astronomical growth in the aggregate. Within these totals, of course, individual activities may be expected to vary a great deal, as may be seen in the ORRRC reports. The impact of growth by region, and particularly by type of enterprise, may vary still more, in ways requiring much further investigation.

Supply

Land

What might this range of expansion possibilities mean in terms of shifts in land use? Public officials recently have generated some idea of the magnitude of changes which they foresee. Figures obtained from Michigan outdoor recreation agencies, for example, generally indicate a 200 percent to 300 percent increase in attendance by 1980. Planning is underway to acquire roughly two to three times the existing acreage administered to accommodate these demands.

The Parks Section of the Michigan Conservation Department anticipates state park attendance to increase from about 13.5 million visits in 1964 to approximately 40 million by 1980. The amount of recreation lands recommended in its current plans shows a total of about 471,000 acres, compared with approximately 187,000 acres held in 1964.

The recently-published 1980 Lands Plan of the Huron-Clinton Metropolitan Authority recommends increasing the amount of its recreation lands from about 16,000 acres in 1964 to 30,000 acres in 1980, in order to meet the outdoor recreation needs of the 20 million visits expected by that year. In line with ORRRC and national projections, U.S. Forest Service projections in internal reports reveal comparable increases in anticipated attendance and acquisition of recreation lands.

Population figures can be employed to compute some estimates of the public lands needed to accommodate future visitation. A widely-accepted figure for public outdoor recreation lands relative to base population, for example, is 70 acres per 1,000 population, of which 45 acres per 1,000 population tends to be state and federal acreage. Using this criterion, the Michigan Department of Conservation has estimated that for the predicted 1980 Michigan population, approximately 472,500 acres of public recreation lands would be needed.

For planning purposes, the Conservation Department has divided Michigan into five regions — the Upper Peninsula, Northeast and Northwest Lower Peninsula, and Southeast and Southwest Lower Peninsula. To apportion the projected 472,500 acres of recreation lands solely on the basis of the expected

future population distribution would be unworkable, since these lands serve non-resident visitors as well as Michigan visitors from outside each planning area. The agencies' acreage distribution by planning area to allocate the land needs by 1975 is shown in Table 15.

Table 15—Projected 1975 population and public land needs in Michigan

Planning Area	Projected 1975 Population	1975 Public Land Needs (acres)
UP	303,880	13,580
SE	6,880,220	254,100
SW	2,407,090	108,315
NE	455,870	20,475
NW	460,220	20,700
Unallocated		55,330
TOTAL	10,607,080	472,500

Source: Michigan Conservation Department.

By projecting 1964 attendance figures at Michigan State Parks, based on a 10 percent attendance increase (as witnessed during the preceding decade), however, almost all of this total might be needed for state parks alone. See Table 16 to see how these agency figures are derived.

Table 16—Projected 1975 state park attendance and land needs in Michigan

Planning Area	1964 Acreage	Estimated Park Attendance in 1975	Estimated 1975 Public Land Needs (acres)
UP	81,338	4,093,910	51,571
SE	63,056	14,411,544	181,578
SW	7,050	8,847,133	111,372
NE	12,166	4,762,225	60,001
NW	19,039	6,095,515	66,697
TOTAL	182,649	38,210,327	471,219

Source: Michigan Conservation Department.

It can readily be seen that this allocation is made according to present patterns of use projected to 1975. This method suggests the need for a total of 292,950 acres of public outdoor recreation land in southern Michigan, in contrast to the 70,106 acres presently administered by the Conservation Department.

The vexing problem is that, although the state has a large reservoir of state and federal lands in northern Michigan, these lands are not accessible for day use — say, a two hour drive from population origins — by the majority of Michigan residents. The southern one-third of the state has 88 percent of the population, but only 38 percent of the public recreation lands. Further, these southern Michigan lands accommodate 64 percent of the total 1964 state park attendance, and 88 percent of the day-use visitation.

Taken together, these developments suggest that public lands primarily used for outdoor recreation

may be in the range of 1.5 to 2 million acres by 1980, based on the following partial estimates.

Michigan Conservation Department (lands receiving significant recreation use—	
parks, forests, game areas).....	800,000 acres
Regional parks, southeastern Michigan	60,000 acres
Regional parks, remainder of state	50,000 acres
National Park Service	360,000 acres
Wildlife refuges	50,000 acres
U.S. Forest Service (major recreation use).....	Not available

Indications are that combined state and federal forest lands will likely comprise almost 7 million acres by 1980, much of which may be used to various degrees for a broad range of outdoor recreation activities. (One difficulty in arriving at definitive acreage totals, in fact, results from the method of tabulating recreation use. Most agency tabulations report attendance by administrative unit — forest, district, or park — or by activity total — camping, boating, etc. — rather than by functional area classifications; i.e., relating attendance directly to the acreage upon which various activities occur. Were such activity-area reports available, the total lands used for various outdoor recreation purposes could much more readily be determined.)

An obvious implication of these figures is that the greatest recreation impact of metropolitan Michigan residents will be on nearby open space — i.e., rural lower Michigan. It can be concluded that the bulk of the recreation land needed to serve Michigan population centers will be obtained through acquisition of rural lands in southern Michigan that shift into this use from agricultural or rural non-farm uses.

For the public portions of the Michigan outdoor recreation system, then, overall availability of land inputs does not appear to involve critical adjustment problems. Selected instances of conflict may arise, though, notably over higher quality water-based areas, and appropriate methods of financing. The total magnitude of the expected shifts appears to be within a range that often could be handled through acquisition of other agency lands. Future agency plans in many cases might involve more intensive use of existing public lands.

Much larger shifts are foreseen with regard to private recreation lands. The area devoted to such uses is expected to rise from the million or so acres estimated for 1960 to perhaps 5 million acres by 1980 (1). Given the efficiency of market forces, the commercial sector presumably will find ways to accomplish this massive adjustment in land uses. Since the key sites for future tourism and outdoor recreation enterprises are likely to be either around good scenery or water or near expressway interchanges, however, they should not be looked to as sources of salvation for many marginal agricultural lands.

Significant issues do exist, however, with regard to

public and use policies as they affect growth patterns of the entire system. Many tourist enterprises will survive or develop only as nearby public lands are developed well for outdoor recreation. Everywhere, rural zoning will take on new importance as a means of preserving the quality of the environment. Within the public land holdings, critical and possibly different policies will have to be considered regarding commercial concessions for eating and drinking, lodging, swimming, etc.

Altogether, the tourism-recreation industries may provide an alternative use for some land marginal in agriculture by 1980. It will by no means provide an alternative for all such land, and it may indeed provide an alternative for many types of land that are capable of being operated economically as farm land. This will depend upon its location.

Jobs

In a recently-released authoritative study, it is estimated that between 1960 and 1975, to prevent substantial unemployment or out-migration, the Michigan economy must generate more than 860,000 new full-time jobs (12). If outdoor recreation and tourism employment were to grow at about the national rates postulated by ORRRC, this sector might account for something over 40,000 of these jobs directly, and perhaps 80,000 indirectly; that is, around the amount estimated to be contributed by the automotive complex to 1970.

Capital

For the public and private sectors alike, opportunities for capital investment generally are more likely to be abundant in the heavily settled parts of the state than in the northern part of the state. Most recreation expenditures are made near at home. Those investments that are made in the northern part of the state are likely to depend upon some major tourist attraction, public or private, to draw sufficient volume to the area. In the southern part of the state, those businesses that are located near population centers are faced mainly with competition from those in their immediate vicinity, and do not have to compete with other regions for attracting travelers and tourists. Needless to say, these types of businesses are of a different nature — one attracting an itinerant business, the other attracting and appealing primarily to a resident business that is a day use type of operation. It is expected that both will expand.

Enterprises

It is extremely unlikely that the recreation industry would provide an alternative for marginal agricultural or rural entrepreneurship. Those people that are marginal in agriculture are likely to find themselves completely unable to cope with recreation industries,

because they are dealing with a still more complex type of industry, particularly in its marketing aspects. Such people are likely also to have access to only small amounts of capital. This combination of factors suggests that, if these individuals are marginal as managers in agriculture, they are likely to be even more marginal as managers in recreation industries. This conclusion is supported by the data for cottage resorts, restaurants, and motels in the current Upper Peninsula study.

It is expected that the trends to larger size, now observable in nearly all industries, will be a major factor in the recreation and tourism industries. Most recreation businesses can now be compared to the corner grocery store of the 1930s; there is still a marginal role performed by the corner groceries, but their function largely has been taken over by large supermarkets. It is expected that in a somewhat parallel manner, vacation "supermarkets" of various kinds may be the order of the day one to two decades hence.

While "growth" is not a necessary end in itself, the opposite of growth in a field as dynamic as recreation and tourism is stagnation, obsolescence, and a declining image of the region for purposes of tourist visitation. Thus, it is important to have wide-awake entrepreneurship and by and large these do not come about in a high proportion of "Mom and Pop" businesses. This suggests that those kinds of businesses that will be surviving in the decade or two hence are likely to be larger businesses, better financed, and possibly with a degree of integration of one sort or another.

One kind of integration that appears likely to be a major factor is the chain operation type of integration by those businesses that have somehow become large enough and have developed a formula for success in the industry. Another kind of integration could be a horizontal integration by types of recreation industries. In other words, it is expected that complexes of recreation services will be put together either under one management in a given locality or united in some kind of federation or association.

Role of the Public Sector

It is expected that public activities will have a major influence upon recreation developments and firms in two important ways: through regulation such as zoning, and through public ownership and development of many spots of outstanding beauty with certain kinds of features that may serve as major "attractions."

Public Regulation of Developments and Activities.

The sudden development of sensitivity to the dull drabness of the American countryside, or in some

cases the unsightly clutter, will have a certain impact upon recreation firms in the decade ahead. This will not only affect location, it will affect the ways in which scenic views from the roadside can and must be managed.

Another consideration is control by zoning. One of the factors now relatively well understood is the need to locate most service facilities near major population centers. This means that eventually the "string town" type of development that is occurring along roads in many parts of the state may be uneconomical, and likely to lead to financial failure of the firms thus involved. Zoning regulations are likely to require that businesses be grouped and that open space be left for scenic purposes as well as for the financial advantages to those involved in the business enterprises.

Public Development in Relation to Private Investment.

In many or most cases, public investment can and should be complementary to private investment. In the recreation industry it is likely that public investments will be made for the purpose of expanding the possibilities open to private investment. Some examples of these possibilities are:

The development of scenic roads, which will require service facilities at intervals along them. In addition, scenic roads will make more accessible points that have major appeal to tourists, and hence tend to increase the tourist visitation to given areas.

The development of parks complementary to community services and facilities, so as to increase the overall economic opportunities in the community. This is particularly true in the case of major parks, such as those proposed at Sleeping Bear and at the Pictured Rocks.

It is entirely possible that public control or sponsorship may be involved in the purposeful development of historical resources of major scenic areas and interpretation centers, with the idea that these will serve as the nucleus about which a tourism-recreation complex can develop. It is often difficult to write a prospectus for a historical restoration that will be a profit-making operation suitable for the investment of private funds. At the same time, once such a development occurs there is often room for a cluster of complementing private activities and services, ranging all the way from various kinds of water sports and rentals to lodging and eating facilities, archery ranges, horseback riding, etc. In the northern part of the state, many services businesses may come even more to depend upon the public investment that provides the major attractions nucleus, since in this part of the state it is necessary to attract vacationers

and the recreating public to the area before they can become consumers of the services that are available there. Such major investments will not be the life blood of many types of recreation business in the heavily settled southern part of the state. Still, they may provide appeal, and preserve some areas that could not be profitably owned and managed privately in their highest use.

The Quality Revolution

Already the unmistakable signs of a revolution in the demand for quality are rapidly appearing. Again we must stress that price is a factor, but it is not the major factor. Few complaints are voiced by people simply because they paid high prices — *provided they have gotten value received for the high prices*. We are now in what might be called at least the third generation of businesses that have been developed specifically to serve the automobile tourist. The first was the primitive cabin, with a bed and roof and little else. Next came various degrees of sophistication in cabins and motels. Now we find increasing numbers of plush facilities — including dining, eating, drinking, and expensive recreation facilities.

Along with the change in the quality of facilities provided, there is a change in the taste for the kinds of activities desired. The overwhelming bulk of those who travel have had primarily urban experiences. They are not interested in roughing it. They are interested only in superficial ways in the woods, the flowers, the trees. In fact, they are more likely to be bored by them quickly than to be deeply absorbed in them, unless some means of providing readily available interpretive services is at hand. After they have had one look at the scenic overlook, a view of the bear at a distance, and driven through a few miles of tree-shaded roads, they are ready to go back to the urban centers where they can do the kinds of things that they are familiar with — to mix with other people and have their fun in a gregarious way.

We can only speculate as to the nature of development beyond this point. Will the traveling public become more intensely interested in learning on their own, delving into history, and looking into local custom at some depth in art, geology, biology, etc.? Can purposeful public action be undertaken — as in the case of the Mackinac island historic restorations that have paid their way on a bond issue basis — to stimulate and encourage such tastes? To what extent should the public sector continue to provide for the strong minority who will continue to prefer the traditional, simpler forms of outdoor recreation?

These policy issues are far more than academic for the supplier of recreation and tourist services, who in general must cater to predominant patterns of demand. On the whole, rough or crude facilities

have little chance of succeeding. Firms located at a distance from community centers are less likely to be successful. This is particularly true in northern Michigan. It is less applicable in the southern third of the state, where people living in an urban center might be willing to drive a distance to get to a particular recreation spot. There is and will continue to be a place for the so-called "primitive" outdoor sports such as hunting and fishing, but increasingly urban types of experience will be demanded, such as golfing or bowling.

The strongest influence toward quality innovations comes from developments in other states. Following

the lead of places like Colonial Williamsburg, impressive tourist complexes are being built with public and private funds in the East, South, and West, as well as overseas. Michigan's Interlochen may approach Massachusetts' Tanglewood; Mackinac Island may rival Bermuda; Fayette may begin to match California's Columbia State Park. But do we have enough equivalents of Gatlinburg, the Land Between the Lakes, Aspen, Palm Springs, or the European hostels in castles? Imaginative programs appear crucial if Michigan is to maintain or expand its share of Upper Great Lakes tourism and outdoor recreation in the face of this growing competition.

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