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Era of critical competition?

Supply–Demand in Michigan Campgrounds

MICHIGAN STATE UNIVERSITY
COOPERATIVE EXTENSION SERVICE

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INTRODUCTION

Economic analysis is necessary for any profit oriented business. In periods of economic stress it defines critical weapons in the battle to survive, both for the individual business and for the entire industry.

The current situation within the campground industry shows that this is a time in which the most forceful competitive weapons must be brought into action. The industry is confronted on the one hand with a serious uncertainty about available fuel supplies for its consumers, and an equally serious question about both growth potential and over-building of facilities.

In such a period, the reaction is to search for ways to become more competitive for the volume of users. Since the margin of profit is already small, campground owners cannot reduce rates as a means of appealing to customers because costs of operation can be expected to increase. The search for competitive marketing must be for ways of making operations more efficient and for expanding the income from the present investment in facilities, goods and services. Any additional investments will have to be examined for profit generating ability of their own as well as for ability to attract more customers. Actions will have to answer to the question of "what can and should be done in order to attract more customers and keep costs down."

NATIONAL SCOPE OF SUPPLY

An exact total of campgrounds and campsites for any given moment on a national basis is, of course, an impossibility. New campgrounds opening, former campgrounds closing, additions to or reductions from number of sites in counted campgrounds all go on constantly. In an analysis of campgrounds by region and nationally, Kottke (4) determined that there were 8,665 commercial campgrounds and 6,613 public campgrounds in 1972 (Table 1).

The number of sites in the privately owned (commercial) campgrounds was 534,084 and in public campground facilities a total of 285,975 sites. In both public and private ownership where there were 15,278 campgrounds and a total of 819,979 camping sites. The West as a region had more total campgrounds than any other but the North Central region had the greatest number of sites, indicating that campgrounds in this section of the country are generally larger.

The absence of more recent complete data on the number of campgrounds and campsites in the nation leaves a significant void in attempts to analyze the supply. Growth has taken place in both 1973 and 1974 in both numbers of campgrounds and campsites. A basic growth of 10% per year nationally would add more than 3,000 campgrounds and about 164,000 campsites resulting in a total of almost 1 million sites today.

The growth in both campgrounds and campsites in this two year period would be greater for commercial campgrounds than public campgrounds if the trends of

TABLE 1. Number of Campgrounds and Campsites in the Local, Regional and National Markets, 1971 and 1972.

Area	CAMPGROUNDS		CAMPSITES	
	Commercial	Public	Commercial	Public
	(number)			
Connecticut	43	14	4,163	1,949
Northeast	2,116	472	149,653	40,884
West	2,031	2,919	107,019	99,262
North Central	2,196	2,077	165,586	95,227
South	2,322	1,145	111,826	50,602
United States	8,665	6,613	534,084	285,975

the recent past were continued. Most public construction has occurred at a more deliberate pace while construction in the private sector in some areas has literally exploded since 1970.

CAMPGROUND SUPPLY WITHIN THE STATE

Examination of the numbers and locations of licensed and proposed campgrounds in Michigan demonstrates the possibility of a serious over supply of camping facilities. It should be remembered that the over supply conclusion is based upon the statewide total and that some isolated regions may actually have justifiable reason for growth and expansion. Comparing these figures (1974) and data reviewed in 1971 (7) shows a very significant growth throughout the state in the private sector (Table 2). Greater growth has occurred both in the northern Lower Peninsula and the Upper Peninsula than in the southern Lower Peninsula. Statewide totals increased from just under 200 in 1971 to more than 600 in 1974. Over the same period, there was an increase of about 30,000 sites from less than 10,000 to almost 40,000 sites (Table 3).

TABLE 2. Commercial Campgrounds for Profit by Region in 1971 and 1974.

Region	NUMBER[1] 1971	1974
Upper Peninsula	11	75
Northern Lower Peninsula	55	265
Southern Lower Peninsula	132	284
Total	**198**	**624**

[1]Includes 50% of the "proposed" campsites approved for construction by the State Health Department as of Spring, 1974.

TABLE 3. Commercial Campground Sites, Profit and Non-Profit Motivated, in 1971 and 1974.

Type	NUMBER 1971	1974
Profit	8,910	34,751
Non-Profit	(N.A.)	4,988
Total		**39,739**

[1]N.A. — data not available

Era of Critical Competition

Comparing these data and the shipments of camping vehicles shows that campground growth has continued past the peak growth periods in shipments of camping vehicles. This short term difference indicates that numbers of campsites are increasing faster than the growth in numbers of camping households. With 1972 Michigan campground research (8) showing average attendance of about 45 percent over the season, and with campground growth outstripping growth in vehicle shipments, economic problems for operators can be anticipated. The era of critical competition is at hand.

A look at 1974 figures clearly shows how fast Michigan campgrounds have grown. There are over 1,100 private and public campgrounds in Michigan, with a total of nearly 70,000 sites (Table 4). This figure is arrived at by adding the following categories of facilities: privately owned for profit or hobby purposes, membership owned, church and other non-profit, operated by firms for employees and guests only, U.S. Forest Service campsites, State Forest campsites, State Park campgrounds, municipal, county, and township owned camping facilities (group camps not included).

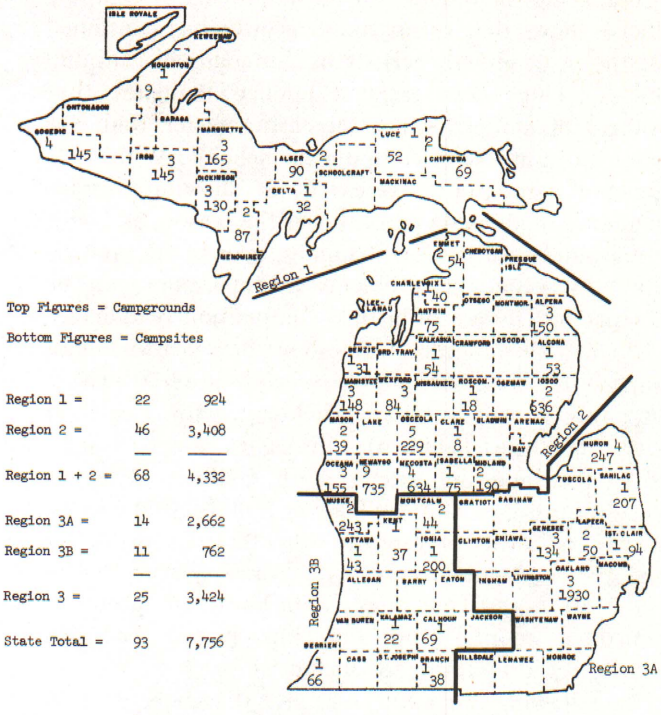
The following maps (pp. 4-6) give the above data by type of ownership, region and county within the state. Since 50% of the proposed new campsites recorded by the State Department of Public Health, Spring 1974, were counted as ready for occupancy in the above totals, it can be assumed that when all the remaining 50% of proposed sites are in operation there will be in excess of 40,000 sites in private ownership alone in Michigan.

In addition to showing total camping facilities, these maps isolate another important aspect of the supply. There is a diversity of different types within this system. Almost half of the facilities are provided by the various levels of government. Within the publicly owned facilities, there is also a nearly even break between rustic and modern camping facilities. In the privately owned sector, a clear majority of operations are profit motivated and a small percentage are devoted to facilities for members, church groups, and other non-profit private developments.

TABLE 4. Number of Campgrounds and Campsites in Michigan by Type 1974.

Type	No. of Campgrounds	No. of Sites
Privately Owned	690	40,566
Publicly Owned	437	27,620
Totals	**1,127**	**68,186**

MUNICIPAL, COUNTY, TOWNSHIP CAMPGROUNDS
(By County, 1974)



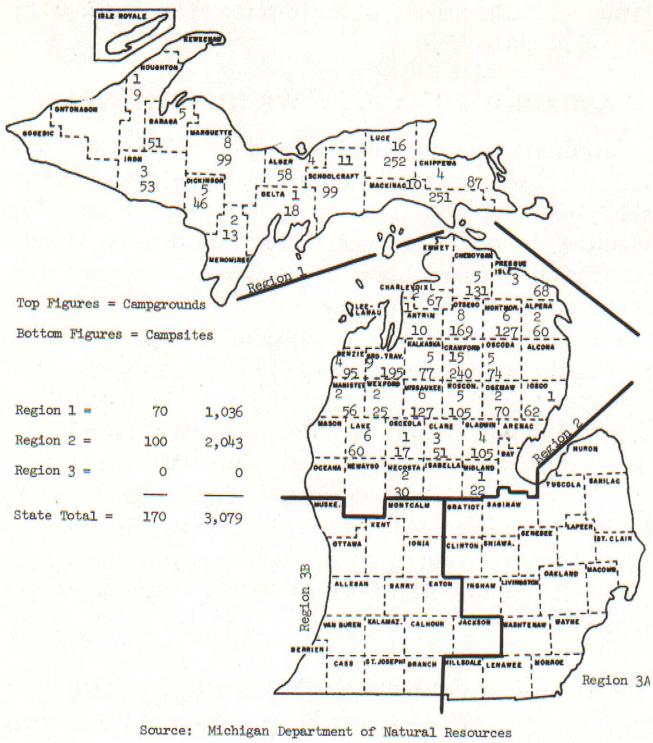
Top Figures = Campgrounds

Bottom Figures = Campsites

Region 1 =	22	924
Region 2 =	46	3,408
Region 1 + 2 =	68	4,332
Region 3A =	14	2,662
Region 3B =	11	762
Region 3 =	25	3,424
State Total =	93	7,756

Source: Michigan Department of Public Health
December 1973

STATE FOREST CAMPGROUNDS
(By County, 1974)



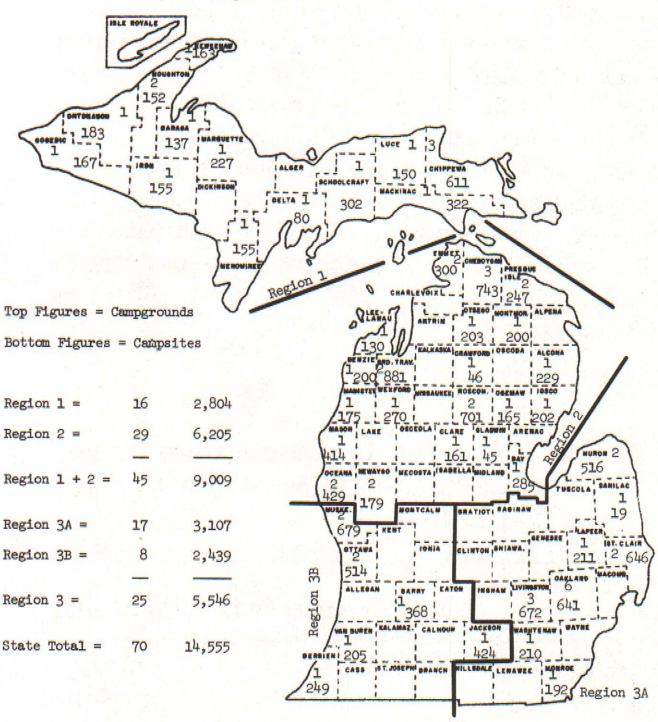
Top Figures = Campgrounds

Bottom Figures = Campsites

Region 1 =	70	1,036
Region 2 =	100	2,043
Region 3 =	0	0
State Total =	170	3,079

Source: Michigan Department of Natural Resources
Forestry Division 1974

STATE PARK CAMPGROUNDS
(By County, 1974)



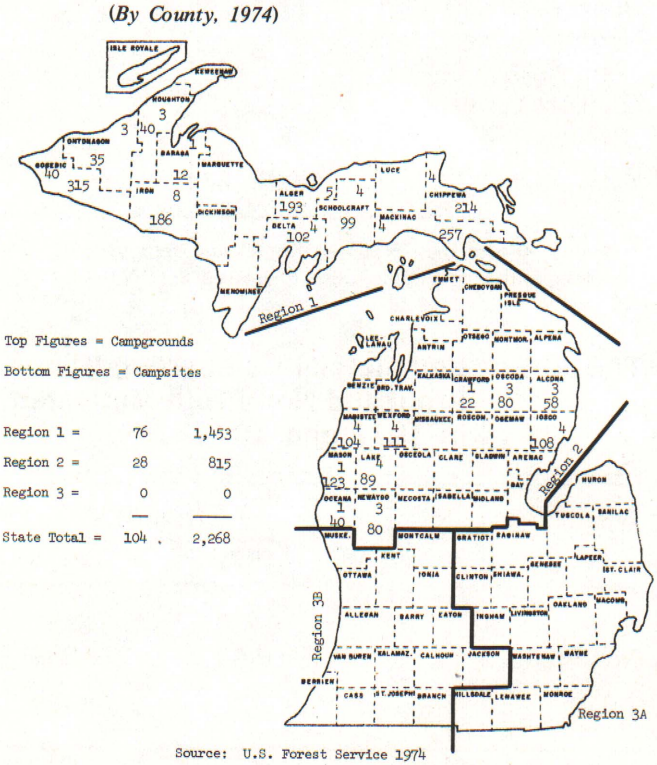
Top Figures = Campgrounds

Bottom Figures = Campsites

Region 1 =	16	2,804
Region 2 =	29	6,205
Region 1 + 2 =	45	9,009
Region 3A =	17	3,107
Region 3B =	8	2,439
Region 3 =	25	5,546
State Total =	70	14,555

Source: Michigan Department of Natural Resources
Parks Division 1974

U.S. FOREST SERVICE CAMPGROUNDS
(By County, 1974)



Top Figures = Campgrounds

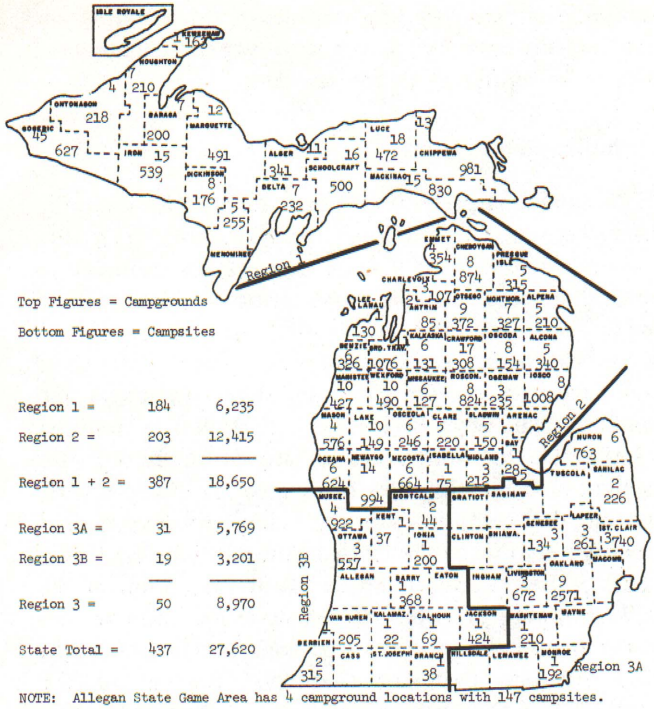
Bottom Figures = Campsites

Region 1 =	76	1,453
Region 2 =	28	815
Region 3 =	0	0
State Total =	104	2,268

Source: U.S. Forest Service 1974

PUBLIC CAMPGROUNDS, STATE PARK, STATE FOREST U.S. FOREST SERVICE, AND MUNICIPAL, COUNTY, AND TOWNSHIP CAMPGROUNDS

(By County, 1974)



Top Figures = Campgrounds

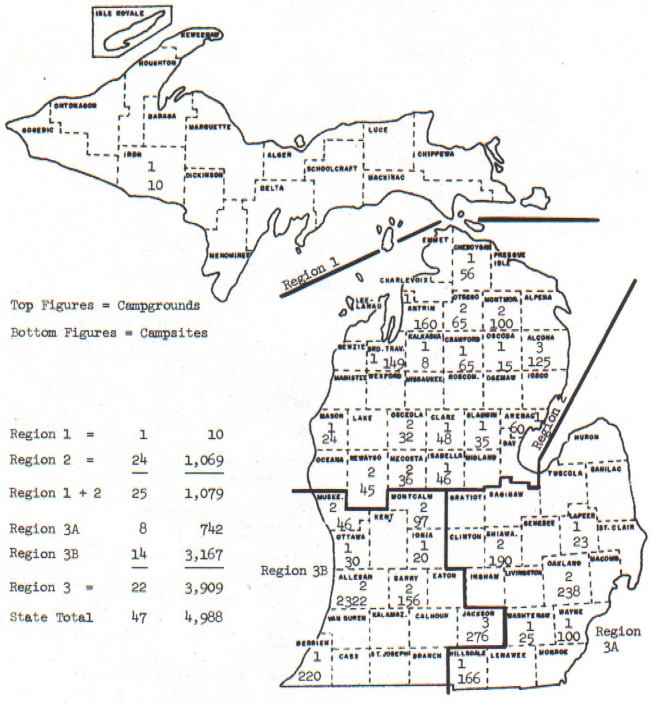
Bottom Figures = Campsites

Region 1 =	184	6,235
Region 2 =	203	12,415
Region 1 + 2 =	387	18,650
Region 3A =	31	5,769
Region 3B =	19	3,201
Region 3 =	50	8,970
State Total =	437	27,620

NOTE: Allegan State Game Area has 4 campground locations with 147 campsites.

(PRIVATE - NON-PROFIT) CHURCH, EMPLOYEES OF FIRM, MEMBERSHIP OWNED CAMPGROUNDS

(By County, 1974)



Top Figures = Campgrounds

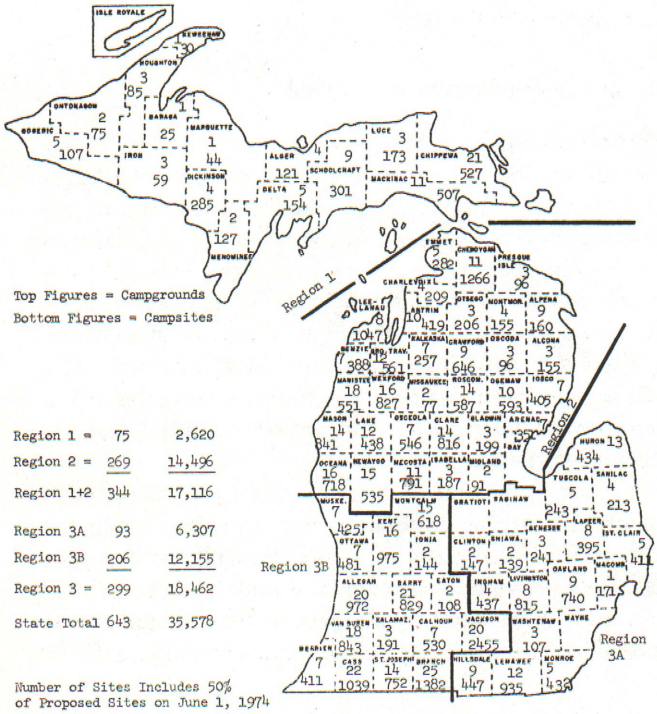
Bottom Figures = Campsites

Region 1 =	1	10
Region 2 =	24	1,069
Region 1 + 2	25	1,079
Region 3A	8	742
Region 3B	14	3,167
Region 3 =	22	3,909
State Total	47	4,988

Source: Michigan Department of Public Health
December 1973

PRIVATE CAMPGROUNDS (FOR PROFIT)

(By County, 1974)



Top Figures = Campgrounds

Bottom Figures = Campsites

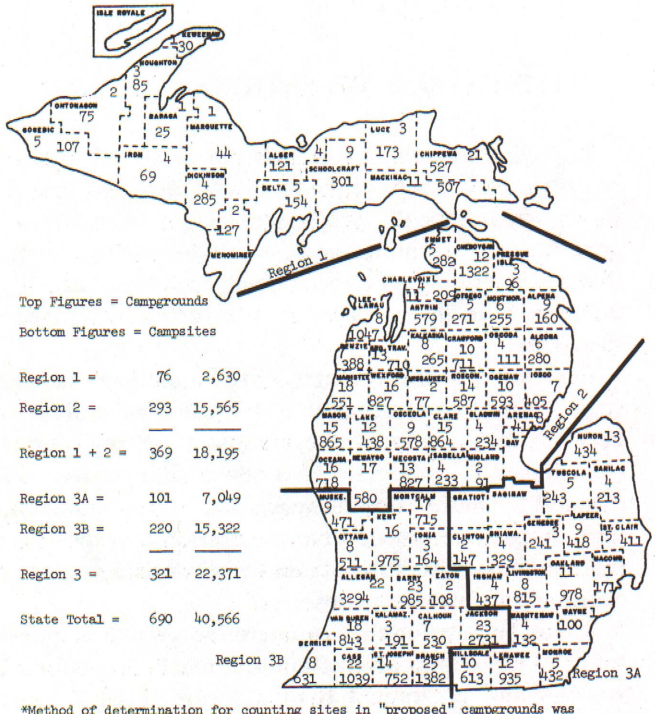
Region 1 =	75	2,620
Region 2 =	269	14,496
Region 1+2	344	17,116
Region 3A	93	6,307
Region 3B	206	12,155
Region 3 =	299	18,462
State Total	643	35,578

Number of Sites Includes 50% of Proposed Sites on June 1, 1974

Source: Michigan Department of Public Health
December 1973

LICENSED PRIVATE CAMPGROUNDS (FOR PROFIT AND NON-PROFIT)

(By County, 1974)



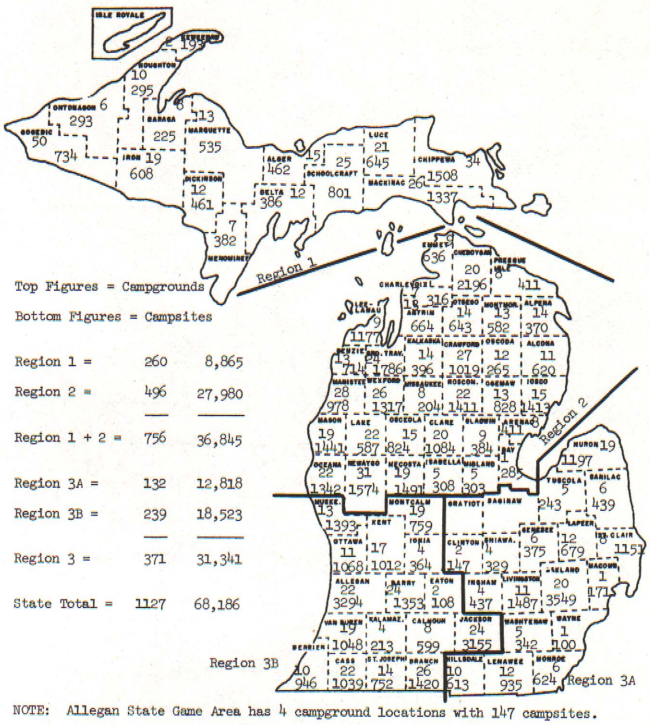
Top Figures = Campgrounds

Bottom Figures = Campsites

Region 1 =	76	2,630
Region 2 =	293	15,565
Region 1 + 2 =	369	18,195
Region 3A =	101	7,049
Region 3B =	220	15,322
Region 3 =	321	22,371
State Total =	690	40,566

*Method of determination for counting sites in "proposed" campgrounds was to count 50% of the proposed sites as though they were actually in operation. Thus, if all go into operation by 1976 there will be many more sites available than the 40,566 counted by this method.

GRAND TOTAL - PUBLIC AND PRIVATE CAMPGROUNDS
(By County, 1974)



NOTE: Allegan State Game Area has 4 campground locations with 147 campsites.

The supply of facilities offered by each part of the total system is not the result of deliberate strategy. Nevertheless, it offers strength to the argument that a more deliberate coordination of planning for campground construction and operation is an absolute necessity in the era of critical competition.

INDICATIONS OF NATIONAL DEMAND

In predicting camping market potential, one needs to be particularly aware of the fact that the recent past has shown great growth. While some signs of cresting of growth are discernible, no one can be entirely certain that a new leveling off trend is being established at a level different from the observed growth of the past three to five years.

Evaluation of the recent growth in camper numbers suggests that the stimulation for camping which has been created largely by the manufacturers of camping vehicles and equipment has been impressive. The demand for more camping space (i.e. campgrounds) has probably resulted more from the marketing expertise of these manufacturers than from the advertising efforts of campground owners themselves.

It may be possible that campground growth is more a result of the strong production and marketing efforts in vehicles and equipment than a result of what campgrounds themselves have offered to the camping public. It is doubtful that campgrounds would have been prompted to develop convenience facilities had not the equipment owned by campers required it. As an example, sanitary dumping stations would probably not have been initiated by campground owners if there were no vehicles equipped to use them.

Saturation Point Near?

The danger in predicting future demand for camping spaces from recent growth lies in overlooking the reality that a saturation point may be near. It is reasonable to expect that there is only an undetermined percentage of the population who will respond to the various appeals to become campers. Even under the influence of the most ideal circumstances for camping, some portion of the population will never be campers. Perspectives outlined by LaPage(1) that both dropouts (stopped camping) and inactives (not camping now but expect to in the future) exist in the camping market bring the realities of camping potential in the United States into better focus.

LaPage has produced an excellent evaluation of the family camping potential. Based upon an estimated 65 million households and 3.19 persons per household in 1971, his data indicates that 19.4 percent of the households in the country consisted of camper families with another 14.0 percent in the inactive camper category (Tables 5, 6).

The fact that there is no more recent data to reflect the past three years does not suggest that more camper households or less are in the market than in 1971. Rather, the estimations of 1971 should be regarded as guidelines. Precise information is not possible until a clear trend is established.

Marketing—Management Needed

Profitmaking in campgrounds in the future will depend more upon internal management and marketing skills than ever before. High quality campgrounds are available. In fact, there is a vast array of types of facilities ranging across appropriate rate structures. However, this doesn't assure more camping days by active, inactive, and new campers. Marketing* and management tools, not tools of production, are needed. Most importantly, a more aggressive marketing program will contribute to a more precise determination of growth potential and the location of the saturation point.

Production and marketings of new camping vehicles and other camping equipment may well be among the most positive indicators of future demand for camping sites. Data on annual shipments of vehicles since 1961(5) show both an increase in numbers of vehicles and in the kinds of vehicles coming into production (Figure 1). In

*,Marketing is not synonomous with advertising. Advertising is only one component in marketing as used here.

TABLE 5. U.S. Households in the Active and Inactive Camper Markets by Region (Percentage of all households), 1971.

Region	Inactive	Active
Northeast	8.8	12.7
North Central	14.0	21.1
South	13.8	15.7
West	21.7	32.6
United States	**14.0**	**19.4**

TABLE 6. U.S. Households in the Potential Camping Market, by Region (percentage of all households), 1971.

Region	High Camping Potential	Moderate Camping Potential	Low Camping Potential	Total
Northeast	3.1	11.0	3.9	18.0
North Central	2.6	12.3	3.9	18.8
South	3.5	4.9	5.6	14.0
West	2.3	5.9	.9	9.1
United States	**2.7**	**8.6**	**4.0**	**15.3**

Source: USDA Forest Service Research Paper NE-252, 1973 Northeastern Forest Experiment Station, Upper Darby, PA.

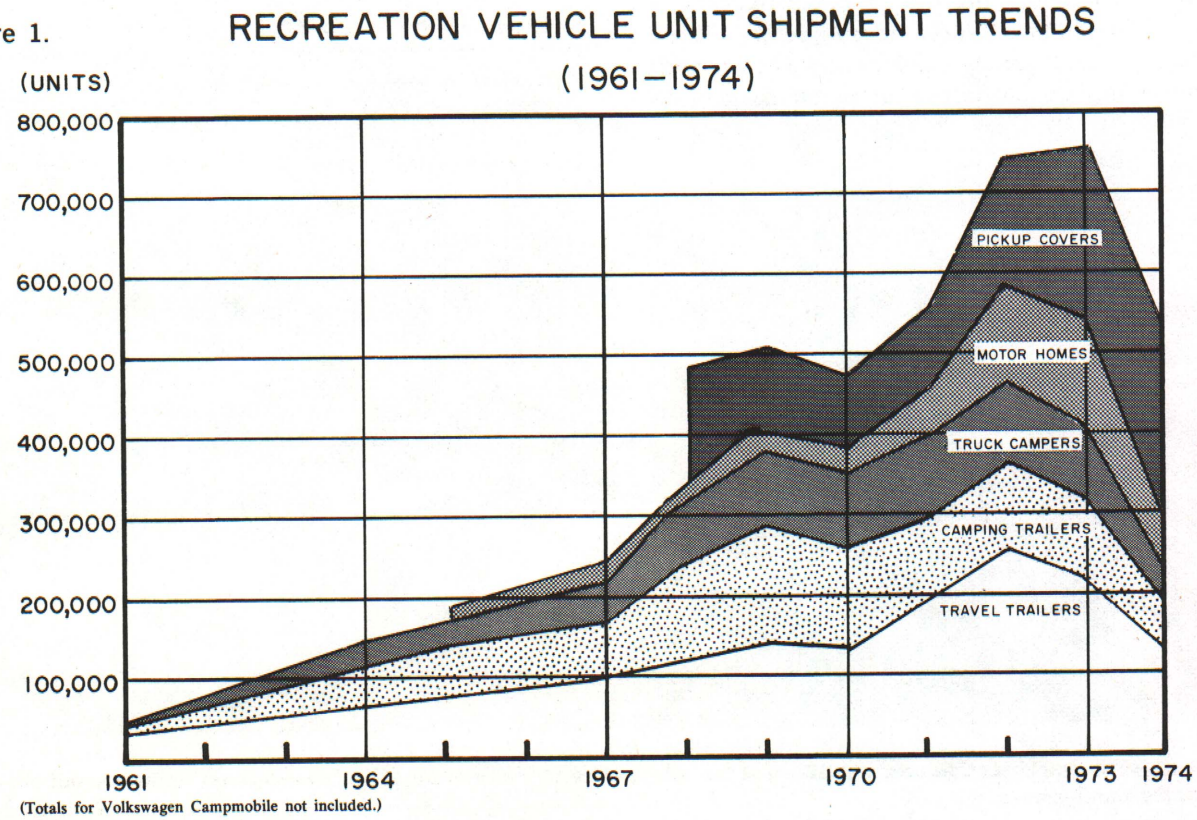
1961, a total of 62,600 vehicles moved from manufacturers to dealers. By 1972, this total had reached 747,500 vehicles, including 164,000 pickup covers.

The first significant annual drop in shipments of vehicles occurred in the 1969-1970 period. By 1971, however, shipments again equalled the 1969 figure and the following year climbed sharply for all types of camping vehicles. Shipments for the years of 1973 and 1974 showed the most severe down trend in vehicle deliveries in the history of the trade. A decrease of 19.7% occurred between 1973 and 1974. However, there was some decrease in shipments in 1972-73 for all types except the pickup cover.

Major Adjustment Period?

Several factors helped cause the drop in production in the 1974 period and interact with the theory that a saturation point may be near. The two most prominent factors in 1974 were the early year uncertainties over fuel supplies and costs and the general drop in the national economy. These factors and the possibility of near

Figure 1.



(Totals for Volkswagen Campmobile not included.)

saturation of the camping vehicle market will probably have a lasting effect upon the future demand for camping sites.

At best, they may result in a short run leveling off in the increase in the number of campers and at worst, they may cause a discernible decrease in the percentage of the American households who will enjoy camping in the future. Either conclusion is only speculation.

This distress in camping vehicle production forced many firms out of business or to undergo a significant reorganization of product lines. If production and shipment decreases resulted more from saturation of the market than from the economic stress of 1973-74, determination of the most likely percentage of the population interested in camping may be close at hand. Should this be true, then certainly production of new camping facilities will arrive at the same level of stress as that experienced by the vehicle manufacturers.

In short, a major adjustment period may already be in motion which will result in the same going out of business and reorganization crisis for campgrounds as occurred for manufacturers of camping equipment. This adds credence to the expected era of high competition among campgrounds and focuses upon the need for an evaluation of efficiency and economizing on the part of management within the campgrounds.

INDICATIONS OF STATE DEMAND

One other method of examining demand for campsites in Michigan is through the use of public records of campground attendance over a recent period. While most privately owned campground owners keep records of attendance in their individual campgrounds, there is no complete record to show occupancy numbers for all privately owned campgrounds in the state. On the other hand, both the State Parks and the State Forest campgrounds report attendance records annually.

Table 7 suggests that beginning in the period of 1969-70 a relatively consistent plateau was reached in number of campers using State facilities. With some variation by year, there has not been a very great difference over the six-year period. The number of days camped per camper has increased somewhat in both the State Parks and the State Forests.

These data seem to show the same trend as for camping vehicle deliveries. They support the theory that

TABLE 7. Attendance at Michigan State Forest Campgrounds (1969-1973) and Michigan State Parks (1966-1974).

	STATE FORESTS		STATE PARKS	
	Campers	% Change	Attend.	% Change[1]
1966			16,457,452	
1967			15,557,089	- 5.5
1968			17,703,555	+13.8
1969	220,117		18,956,005	+ 7.1
1970	268,164	+21.8	20,492,151	+ 8.1
1971	284,779	+ 6.1	21,914,208	+ 6.9
1972	168,099	- 6.2	19,191,257	-14.1
1973	292,746	+ 9.1	19,849,161	+ 3.1
1974	(N.A.)	(N.A.)	19,485,924	- 0.1

[1],Includes day use visitors as well as campers.

Source: Michigan Department of Natural Resources, Park Division and Forestry Division.

Spring rally of the Michigan Campers and Hikers at the Allegan County Fairgrounds. Continued interest by buyers, but not at the rate of campground growth.

a maximum point or at least a new plateau of demand (percentage of camping households) may either have been reached or is approaching. It is evident that the increase in new camping facilities is greater than the increase in both equipment marketed and number of housholds in the camping market. In turn, this emphasizes the need for concern about logic of further construction and confirms the need for prudent analysis of ways to make current campgrounds more economically efficient.

Camper shows in 1975 indicate a new level of interest, on the part of buyers, especially in more elaborate camping vehicles. The point is that the growth in the number of camping sites, is at a more rapid rate than vehicle sales. And the increased attendance in campgrounds at the start of the 1975 season should not yet be accepted as anything more than a temporary spurt in camper demand.

EXPLORING THE DO'S AND DON'T'S IN THE ERA OF CRITICAL COMPETITION

What to do and what not to do is obviously connected to the nature of the individual operation. No one set of actions will fit all situations. However, there are some suggestions which can be shared by all.

Knowns and Unknowns

The short run future of the campground industry is colored by certain minimum knowns and unknowns. The number of competitors in the state is one of the known factors affecting managerial choices. A second known factor already mentioned consists of the trends in marketings of vehicles and equipment for camping.

One factor is partly unknown but the evidence from LaPage suggests it is approaching the known status. This is the percentage of all households in the society who can be expected to fall into camper groups. The known is that sometime a point will be reached where no significantly higher percentage of households can be anticipated in the active and inactive camper groupings.

Some Unknowns

Short run unknowns include the situation of fuel supply and costs. The 1975 camping year will become the third straight season in which uncertainty over supply and cost of travel fuel has prevailed. In both 1973 and 1974 there were early warnings that fuel would be in short supply followed by later easing of travel constraints. When the supply and cost picture is in a state of uncertainty, camping vacationers are hindered in establishing definite plans.

On the other hand, definite plans can be more easily made when the actual conditions are clarified. Even if they know that supply and cost will present problems, the camping family can make plans with whatever adjustments are necessary. Given uncertainty, they cannot do so.

The nation seems to be faced with higher fuel costs in the foreseeable future as a reflection of supply. This fact will not necessarily curtail camping. The nation will not stop camping. The expected change will be in habits of camping, in terms of type, time, length of stay, and distance from home among others. Since the true nature of these changes cannot yet be fully measured and identified, they can be treated as unknowns.

The campground manager should provide some leads for his present and potential customers both to remove uncertainty and to offer new opportunities for camping with the travel and economic problems of the times. Owners and managers should try to better understand the position of the camping family under these conditions and adapt offerings accordingly.

Promote Longer Stays

Explore both how to increase the efficiency of the campground and how to best satisfy the needs of camping families—faced with both economic and travel fuel problems. One is to promote longer stays in the campground so that the number of trips by the camper will be reduced.

Examine ways the campground can share with the customer the vacation resources of the total community. People cannot be expected to be content just sitting in the campsite. While the campground can offer many activities by itself, there are always other exciting things to do with short convenient trips away from the site itself.

It is reasonable to expect that the general idea of a "shopping center" where the vacationer can do many things in one location (community) will become more a part of recreation marketing in the future. The idea of combining campground experiences with other vacation experiences in the same community will need exploring by both the campground industry and other elements of the community. Campground owners can lead this exploration.

Increase Midweek Use

A second item also will be economically necessary in the short run future. That is development of ways to assure greater use of the sites now available in the campground. With costs rising, the campground can ill afford to have more sites unused than used. The user must be shown the benefits of camping at midweek as well as on the traditional weekend and holiday peak periods. Many owners have already begun to utilize lower midweek rates and/or "free" days (camp seven days and pay for six, for example). Other marketing methods include temporary or seasonal storage of vehicles.

The longer stay also makes it possible for managers to explore the possibility of marketing more goods and services. Users staying for a week will need to purchase at the site or nearby any number of items which they cannot "bring along." Obviously, the campground must be large enough to provide a lot of customers for the items added for sale.

Assess Value of Each Site

Other things to be explored include the general "quality" of the total campground experience to be sure that it has appeal, particularly on the longer stay basis. This should be accompanied by a look at the fee structure. Base rates should be adjusted to meet the higher cost as in any time period. However, some sites may have a rental value different from the basic site fee. Some may well be pegged at higher rates because of demand (such as lake-front sites), others may well be offered at lower rates if they are in lower demand sections of the campground or if they offer less. Special out of (regular) season prices might be used to attract customers for additional days.

Study again the relationship between costs and income. Determine total costs of operation and total income from all campground associated activities for last year. The relationship between costs and income will indicate whether there is opportunity either to reduce cost or improve income. For example, if cost of items purchased for store sales or canoe rentals is greater than income returned, then consider reducing costs or improving sales. Each source of income should be examined in this way.

SOME DON'TS

There is a need to look at some probable "don'ts" for the short run situation. Large new expenses should not be made unless there is a demonstrated ability for those expenses to clear a profit over the season. For example, a decision to add and equip a store building should not be made without firm evidence that a large enough population (number of sites and campers) will be available.

On the surface, the number of campsites now available for campers in this state suggest that this is not the time to add more sites. They can represent a large new investment and it may take a rather long time to return enough income to pay for themselves. However, if the record of attendance or use of campsites exceeds 60% over the season, and the campground otherwise shows good income, some additions may be considered.

Be careful that these additions do not require enlarging other facilities like baths and showers or an additional well and water system unless proof is available that there will be enough customers to show a profit potential. The soundest argument for making new large investments rests with ability to pay for the additions without economically undermining the entire program. For example, a campground that is clear of indebtedness is in a position to withstand some costs of increase in size while one that is encumbered with large debts may not be able to withstand more.

Lower Rates?

Should you drop the price of site rentals to battle the economic situation? While there is no doubt that cheaper prices would be attractive to some customers, this is hardly the way to meet the economic needs of the moment. There is too little profit margin in most site fees now and cutting prices could be disastrous.

When costs are already absorbing so much of the site income it makes more sense to consider appealing adjustments in services, quality, variety, or price packaging of new and unique offerings to stimulate additional trade. This is the philosophy of offering more for the same price instead of offering the same things for a reduced rate. Price cutting can become a suicidal motion that is difficult to stop once started and it does not repair the need for greater dollar income when the margin of profit is already very thin. Nor does price cutting assure the camper of a high quality product.

The economic stress brought on both by increased competition and weakened demand also suggests that known tools of management must be looked at once more. Each manager should analyze the efficiency of the entire work crew from himself on down to determine if there are ways of streamlining without weakening performance. A manager's self examination to determine if his/her skills can be more efficiently utilized is a second possibility. Everyone should be ready to analyze equipment use and strive for the maximum efficiency to see if changes can be made which will either reduce cost or improve income.

This search would ask such questions as: are some of the sites being used only a few days out of the entire season? Are they located in part of the campground where access is a problem? Do they offer the camper less than other sites? Are some of the sites always filled? How are they different than the rest? Could a different fee be used for some sites, either higher or lower than the basic fee? Should some sites be closed? Is rental equipment being fully used?

The exploration of do's and don't's leads rather logically to a longer range examination of the unit cost and returns within any given campground. Given that new stresses will be evident in the industry for the long range future, individual operators wishing to continue in the business will need to be more serious about the entire matter of efficiency and adapt to methods which have been bypassed in previous years.

Dr. Gordon Guyer, Director of the Michigan Cooperative Extension Service, explores some of the problems and opportunities at the Annual Campground Owners Meeting at MSU.

UNITS, SIZE AND INCOME POWER

It is the nature of every economic enterprise to seek a level of production where every unit produces the maximum return for every unit of cost. It is also expected that increases in size result in reduced cost per unit. For example, a four-inch well and pumping system might cost $6,000.00 for a campground. If there were 30 sites in the campground, the per site cost of the well and pumps would be $200.00. If the same well and pumping system would produce enough water for 50 sites, then the per site cost would be reduced to $120.00

Maximum Efficiency

A point is reached when most efficient capacity for the unit of production is realized. In the previous example, the water system may not be able to efficiently produce necessary gallonage of water for more than 50 sites without breakdown or excessive wear. At that point, consideration must be given to an additional well. But to gain maximum efficiency per unit, the process is repeated, i.e. a new well and pumping system is installed. In turn, maximum cost efficiency will be expected at about 50 sites. At fewer than 50 additional sites, the new water production unit will operate at too high a per site cost. Cost per site will go downward until the 50-site level is reached. If more "breakage" can be expected after 50 sites, additional sites will cause a per site rise in cost to cover repairs and maintenance.

Likewise, a camp store may cost (for an easy example) $10,000.00 and be of sufficient size to house a $10,000.00 inventory of goods. If there were 50 sites in this campground, the per site cost would be $200.00. However, if the store is large enough to serve a 100-site campground, then the cost would be $100.00 per site. The inventory of goods can also be divided among the number of sites available to arrive at a per site cost. However, the movement of the inventory of goods differs in that it has to be refurnished when depleted and it is extremely important to relate the size of inventory to the number of possible customers. At four persons per site, with all sites filled, a 50-site campground will result in a population possibly of 200 people while a 100-site campground filled will have a potential population of 400 people.

A serious look at the potential population is a key to analysis of adding salable goods or services to any campground. It is, therefore, obvious that larger cost facilities, goods or services should not be made unless there are equally larger populations within the campground. Large stores and inventories are not advisable in small campgrounds, for example. Large inventories of items like canoes, boats, or coin operated machines should only be considered when large numbers of users are possible.

Most Efficient Size

Without a substantial pool of data from campgrounds on cost and returns from income centers (sites, stores, boats, coin operated machines, etc.) it is impossible to develop precise knowledge on the question of "what is

the most efficient size for a campground?" The evidence that is available is based upon utilizing known factors like number of sites, number of employees, number of days in the season and others and then working backward to capture estimations and averages that seem reasonable. For example, Table 8 from a campground study in the Northeast(9) shows some of the effects of size upon per unit (site) income and costs.

Table 8 shows a definite relationship between size and per unit profit through averaging the campgrounds within each of the size categories. As expected, not all campgrounds within the larger size classes are more profitable than all the smaller ones and some failures occur within each class category. The tendency for increases in size to be related to better per unit income is, however, clearly evident as a result of the use of averages.

In theory, costs per site decrease with increases in the number of sites until some maximum level is reached. At that point, per site costs increase for more or larger equipment to satisfy needs. However, it should be remembered that some per site costs remain rather fixed as size shifts (taxes, normal depreciation, etc.). In this theory, costs rest principally with hard items of land, construction, materials, equipment, etc.

Net Income/Site Curve

The theory of the net income per site curve is dependent upon: (a) the amount of occupancy per site and site fees as well as (b) income other than site rentals. Net income per site will obviously be greater if the occupancy rate is 65% than if occupancy rate is 50%, regardless of the size of the campground. However, greater net income per site is usually possible through addition of income from other than site rentals.

Table 9 was prepared from Wisconsin data(10) and shows a pattern similar to the preceding data from the Northeastern United States. The data is from 1965, but still depicts the same lowering of per unit costs when size increases. Further, these data indicate that some cost items increase on a per unit basis as the campground grows larger. Among these are labor costs which increase with size until more labor than supplied by the family is needed.

TABLE 9. Average Recreation Costs by Size Categories, Private Campgrounds, Wisconsin, 1965.

Costs	SIZE CATEGORIES Small (Avg. 16 Sites)	Medium (Avg. 42 Sites)	Large (Avg. 134 Sites)
Number of Enterprises	22	17	8
Labor	$380	$767	$1,610
Depreciation	306	685	1,550
Advertising	89	127	1,354
Utilities	182	268	740
Supplies	129	148	683
Property Taxes	131	247	573
Maintenance		357	490
Interest	80	180	1,600
Insurance	82	158	361
Other Taxes	137	188	125
Miscellaneous	60	120	285
Total Cost	**$1,671.00**	**$3,245.00**	**$9,371.00**
Per Unit Cost	$ 104.43	$ 77.26	$ 69.93

Source: "Keys to Successful Campground Operations," Cooperative Extension Programs, University of Wisconsin.

TABLE 8. Net Income per Site at 292 Northeastern States Campgrounds, 1970.

Item	SIZE GROUP (sites) (1) 10-49	(2) 50-99	(3) 100-124	(4) 125-174	(5) 175+
Total site receipts	$111	$124	$107	$134	$137
Total cash expenses	86	81	74	86	79
Depreciation	28	31	26	25	20
Net income—campsites	$ -3	$ 12	$ 7	$ 23	$ 38
Net income—store receipts	$ 5	$ 17	$ 14	$ 12	$ 11
Net income, including store receipts	$ 2	$ 29	$ 21	$ 35	$ 49

It should be clear that while the total figure for per site costs tends to decline as more sites are added, the items making up total per site cost can vary. Per unit labor and advertising costs rise with size of the campground. Other items, like electricity cost per site, vary according to the amount of use of sites rather than according to size of the campground. And, some items such as insurance, interest, and taxes may not vary significantly per site between small and large campgrounds. Therefore, one should not expect that all items of cost will decrease at the same rate as size of the campground increases.

Managers Ability Key

It should not be assumed that size itself will produce lower per unit cost (or higher per unit returns). The ability of the manager to arrange the integral parts of the business is the primary determinant of whether or not the business will prosper when enlarged. It is the manager's ability to operate at a larger size rather than the mere physical facility enlargement that determines the profit making ability of a campground. And much of the manager's ability to successfully move into larger enterprises is dependent upon his/her ability to utilize facts and figures, costs and returns, etc. to analyze what is and what is not profitable and how the profitable can be maximized.

The real significant difference, then, seems to lie with the greater potential for well managed larger campgrounds to create profitable per site income. Data suggest that improved use per site is more responsible for the better net income per site than reduced costs per site in the larger campgrounds. If this argument is valid, then the importance of higher occupancy rates is clearly evident. The net income from additional goods and services, which is more logical in the larger campgrounds, adds to total income to make a better per site income possible.

Consider that there are optimal limits to size of campgrounds. Just as campgrounds can be too small, they can become too large. A point can be reached where the stress of over-population in a campground can cause breakdowns in certain aspects of the enterprise. These are perhaps less well understood from a practical standpoint than per site costs. They do, however, in theory ask the question of when increased size should stop and at what point consideration should be given to the development of a second campground operating separate from the first so that the population of users does not overlap.

Some Tradeoffs

The question at this point is "what are the costs," the "tradeoffs" the "dis-economies" of size? While they need much more elaboration, some are very obvious. For example, it is obvious that as a campground grows larger, the manager sees less and less of both the actions of his employees and his customers. He is more and more confined. He gets "out of touch" with operations. When this tradeoff takes place, often quality of the whole operation seems to drop from the consumer standpoint. As the size of the campground grows, it tends to lose some of its unique character and becomes more like a mass consumption article.

Kottke (4) has developed an insightful consideration of tradeoff costs upon the facilities and resources (Table 10). It can be assumed that a point can be reached at which it is no longer tolerant to add persons per acre, per toilet, per shower, per square foot of store, or per person

TABLE 10. Estimated per Person Use Intensity at Two Levels of Occupancy and Different Size of Campground.

	Campground Size Groups			
	I	II	III	IV
Intensity of use at 90 % occupancy				
Persons per acre per day	5.0	8.6	6.5	21.6
Persons per toilet per day	21.7	18.8	22.9	81.3
Persons per shower per day	65.0	95.4	100.9	109.2
Intensity of use at 35 % occupancy				
Persons per acre per day	2.0	3.4	2.5	8.4
Persons per toilet per day	8.3	7.3	8.9	31.6
Persons per shower per day	25.00	37.3	39.1	81.3

employed in the campground. For example, it is readily evident that if users have to wait in line for use of a facility such as toilets or boats or the recreation building, then there is an increased opportunity for friction among the campers. Such discomforts very obviously would lead to loss of customers and stress on management and workers.

Economically, it is fairly simple to project that too many persons congregated in limited useful space would degrade the turf and possibly lead to destruction of the plant life and hardening or erosion of the soil surface, both of which would destroy the appeal of the surroundings. Too many users concentrated at such points as the swimming beach, a fishing site, or nature trail can lead to the impairment or destruction of the attraction and make it costly to repair. Thought must be given to the optimum size of the "crowd" in a campground. How many people can you keep in one campground before they begin to be "crowded"?

To a certain extent, this touches another problem where stress on the facility and management is experienced—campground users concentrate on weekends and holidays. If the mass of users on these peak days could be more uniformly distributed over the season, there would be a lower level of stress. Marketing innovation to spread these peaks over the season is the only promise that it can be achieved.

SUMMARY AND CONCLUSIONS

This review of supply and demand conditions in the campground industry is more designed to generate serious thinking among managers and directors of campgrounds than to spell out succinct adaptations. Knowledge of the economics of campground operations has not yet reached a level of precision. The owner/operator must exercise his/her own best managerial skills in order to cope with what appears to be an unfolding era of critical competition.

Evidence indicates that Michigan has moved more rapidly than Malcolm Bevins predicted for the probable time for the U.S. campground industry to reach stage 3. Addressing the 1972 Michigan Campground Seminar, he said:

> "An eye to the future sheds some light on what's ahead for developmental stage 3, which as some people see it will come about eight years from now, somewhere around 1980. Rapid growth will be over, individual enterprises will be large, capital requirements are going to be extensive. The small, inefficient operator will have been left by the wayside. Those remaining are going to be highly skilled people. They are going to be skilled at working with people. They are going to be highly skilled in developing a market. They are going to be highly skilled in competing with top level management."

If progress travels at the present level, Michigan campgrounds will reach stage 3 well before 1980.

Symptoms of Trouble

The three conditions reviewed in this text that bear most heavily on decision making by present and potential owners of campgrounds in Michigan include:

1. The explosive increase in the 1970's in the number of campgrounds and campsites.
2. Signs of some leveling off in the increase in camper numbers.
3. Current travel fuel supply and costs which will cause changes in camping patterns.

Need for Adjustment

Also, considerations have been given to need for adjustments within existing campgrounds to maintain efficient levels of occupancy:

1. Close scrutiny of per site costs and net income per site.
2. Innovative marketing ideas to stimulate more use of existing sites, and re-allocation of existing campgrounds according to market "segments."
3. Development of ideas for greater "vacation" activities close to the campground (within the local community).
4. Careful scrutiny of any major new investments to be certain that ability to draw and keep customers is demonstrated.
5. Examination of the efficiency of management skills, labor force, equipment and facilities.

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