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Characteristics of Supply and Demand in Outdoor Recreation¹

By Hugh A. Johnson

Growing interest in rural development as a national policy and continued emphasis on the potential of outdoor recreation as a catalyst in a rural renaissance justify reflection about what constitutes outdoor recreation and the demand-supply relationships involved.

Theoretically, one can construct supply-demand curves for outdoor recreation products almost as he would for corn, beefsteaks, or automobiles--with a unique caveat that, for outdoor recreation, users generally must travel to the product rather than have the product transported to them. Land, water, wild life, and scenery must be utilized where and in whatever condition they are found by the user.

A few characteristics assume major significance in recreation developments. They are discussed in this paper both in general and as they affect individual choices for outdoor recreation activities.

Demand for Outdoor Recreation

Most "demand" studies in outdoor recreation actually are user studies. As such, they measure demand through actual participation only. They reflect use of available recreation opportunities under existing circumstances. Dangers of projections based on the status quo have been amply demonstrated, for example, by the skyrocketing growth in water-based recreation following development of artificial lakes where none had existed.

However, since common usage prevails, this paper will refer to use, or practice, as "demand."

Demand for outdoor recreation has many facets. These encompass a wide range of ac-

tivities. Each has unique demand limitations and unique spatial requirements.

The bulk of the American public has relatively simple preferences for outdoor recreation. Ten categories cover 90 percent of the preferences. These are: automobile riding for sightseeing and relaxation, picnicking, swimming or going to the beach, fishing, boating and canoeing, hiking, nature and bird walks, hunting, camping, and horseback riding.²

Some of these categories are based on use of public highways. There is little opportunity for private development of the basic resource. However, opportunities exist for providing related services. Eating places, refreshment stands, and gas stations are examples. Overnight accommodations and specialized attractions often can be developed with an eye on the seasonal demands by pleasure-driving recreationists.

Units of time available affect the distance people can travel. Thus, busy mothers with small children need parks and playgrounds near home. Older children need swimming pools, tennis courts, and other play areas within walking or bicycling distance. Workers on an 8-hour day need golf courses--and to some extent shooting preserves--within relatively short commuting distance.

People on an afternoon or a single-day outing usually travel short distances. Their activities are circumscribed by travel time zones of approximately 1 hour or less, one way. This usually means about a 25-mile radius from home in most urban situations, unless one has quick access to high-speed highways.

As distance from home to potential recreation site increases, day uses drop off rapidly. By about 2 hours of driving time or roughly 75

¹This article is a modified version of a paper prepared for presentation during Arkansas Extension Recreation Training Workshop, July 1969.

²Outdoor Recreation Resources Review Commission, Outdoor recreation for America. Govt. Print. Off., 1962, p. 35.

miles, the character of demand shifts toward overnight use but with day use still dominant.³ Beyond these rough limits the recreation tends to be of kinds people expect to do on weekends, holidays, and longer trips. The number of visitors that can be expected from a population center declines rapidly as the distance increases.

Numerous recreation user surveys agree that recreationists more than 100 miles from home tend to have larger than average incomes. They usually have expensive equipment, demand quality facilities and services--and more and more frequently are willing to pay user fees for access to quality facilities.

Still other aspects of demand result from variations in age, sex, income levels, family composition, and other socioeconomic factors. As examples: teenage boys want a chance to show off before teenage girls and teenage girls want places where there are teenage boys; couples with young children want safety and interesting variety for the children as well as something of interest to the father. Mothers in this age-group usually require only safe play areas for the children and comfort for themselves.

Older people tend toward less physically active forms of recreation. They are more apt to drive for pleasure, relax at the beach, picnic, fish, take nature walks, and so forth. Although they utilize many of the same facilities as all the other groups, they reflect a different segment of market demand.

Demand for recreation is highly seasonal. Most family vacations occur during the out-of-school summer months and when the weather is comfortable. Although snow and ice sports are increasing in volume, their proportionate share of total recreation probably is not.

The main summer recreation season is being extended, however, through such media as fall color tours, winterized second homes for weekend occupancy, and publicity about facilities for

³A recent study of St. Louis residents showed that people generally were willing to travel 100 miles round trip for 1 day of recreation, 200 miles for the weekend, and 250 to 500 miles for 3 to 5 days of activity. Nearly two-thirds of all trips to water-oriented outdoor recreation were less than 100 miles. Source: Glenn A. Gillespie. An evaluation of the factors affecting the demand for water-oriented outdoor recreation. Unpub. Ph. D. thesis, Univ. Mo., 1966, 136 p.

winter activities. More and more people not tied down by school schedules are taking advantage of both reduced rates and smaller crowds during off-season when they schedule vacations.

Demand also is affected by the kind and quality of recreation resources available. Most people want recreation near water. They prefer rolling, wooded background to flat, open areas. Significant numbers prefer "name" places or popular spots. Others prefer isolation, quiet, and natural settings. Few are satisfied by a single-purpose facility. Most prefer--and need--combinations of natural resources, facilities, and services.

More and more people are trying new kinds of recreation. The growth of snow-mobiling in the last 5 years is an example of a new recreation activity which has become epidemic in some communities. Camper-trailers, motorboats, beach buggies, and a host of other equipment have been developed within the past few years to meet the ever-expanding variety of recreation demands.

Our expanding recreation market is almost certain to offer more new experiences and more new products in the years immediately ahead. Some of these will have tremendous implications for new business in local areas.

Each of these factors, or variable conditions, affects the factor mix one uses as he analyzes the demand-supply situation for different kinds of recreation. They are key considerations for the ultimate decision whether to develop a single, specialized kind of facility, a complex of enterprises--or forget the whole idea of going into recreation at all.

Supply of Outdoor Recreation

Resources must be available in desired locations and combinations before they are useful for outdoor recreation. Someone usually must provide access, develop facilities, and provide services. Even nature walks normally require access over public or private property. And the relatively simple recreation of pleasure driving involves combinations of right of way (resources); roadway and surfacing (facilities); and police patrols, gas stations, restaurants, and rest stops (services).

Large areas available for extensive use are required for hunting, trail rides, wilderness experiences, and related activities. These areas commonly are in public ownership. Exceptions are found in large private holdings of timber and power companies, some mineral operations, and large ranches. Recreation in these situations usually is a minor use of resources which conflicts little with the major purpose of ownership. Recreation often complements the major uses. Timber companies, for example, often invite recreation use of their holdings (under certain restrictions) as a matter of public relations. Minimum facilities also frequently are made available for recreation use.

Management and imagination should be combined with natural environments to meet user demands for recreation. Naturally desirable areas can be made undesirable for recreation by poor management. Other areas originally marginal for recreation can be made highly successful through foresight and management. Common examples of successful changes in use might include marginal farms converted to prime golf courses, eroded waterways converted to farm ponds, or small flood control works where the pool is managed for recreation.

The effect of distance is reflected in characteristics of demand for a specific recreation site. One must decide whether to concentrate on day use, weekend, vacation, or through-traffic recreation needs. These affect the kinds of related services one puts together in the recreation package being offered.

Private Enterprise in Development Areas

The Outdoor Recreation Resources Review Commission recommended a system of resource development area classification involving six classes of recreation areas. These are (1) high-density recreation, (2) general outdoor recreation, (3) natural environment, (4) unique natural areas, (5) primitive areas, and (6) historic and cultural sites. Degree of recreation use ranges from intensive to extensive, and from major emphasis on needs for activities to major dependence on natural qualities of the environment or on historic or cultural characteristics.

In high-density recreation areas, private enterprise can provide some of the capital, management, and labor for services and facilities--such as parking areas, marinas and other boating facilities, swimming pools and bathhouses, eating places, riding stables, and many others. It is often practical to collect fees for use of such facilities.

Sometimes optimum benefits would accrue to society when these facilities are both owned and operated by private enterprise. In other situations, some of the facilities should be publicly owned and maintained but operated privately under a lease or concession system. And, of course, there are numerous situations where the facilities must be owned and also operated by the public, either because the operation would be uneconomic for private operators or because experience shows that public health, safety, and other interests (including community policy) require public management.

Areas developed for less dense recreation uses also provide many opportunities for private enterprise. The special feature of these areas is their ability, through development of facilities, to sustain a large and varied amount of activity such as camping, picnicking, fishing, water sports, nature walks, and outdoor games. Many privately owned commercial recreation facilities could be located in these areas. They could both complement and compete with related public facilities.

Three of the ORRRC classes--natural environment areas and, to a lesser extent, unique natural areas and historic and cultural sites--provide some opportunities for private enterprise to meet service needs of the recreationists. Historic and cultural sites, caves, hot springs, and other attractions often are privately owned and operated as recreation attractions. Vacation farms, dude ranches, riding stables, fishing camps, motels, restaurants, guide and outfitting services, and a variety of other businesses can be operated near the significant attractions.

Primitive areas, like many unique natural areas, provide business opportunities primarily for guides, outfitters, dude ranches, and others providing services to people who want to get into the back country. Novices and the general public are barred from some of these areas unless they are accompanied by competent and adequately equipped guides. Such areas have

relatively few visitors, but the personal services required per visitor usually are many and expensive.

Location for Private Enterprise

A study recently completed of private developments in Appalachia demonstrated that small, scattered individual operations generally were uneconomic and unsatisfactory.⁴ Studies in other regions bear out this finding.

Private operators frequently cluster around public attractions which, in effect, collect potential customers for them. About 90 percent of operators in an ERS study of private facilities were near public lands and water.⁵ Nearly half of the operators were located near other privately owned recreation facilities. In developed recreation areas, the drawing power of one firm is enhanced by others. Their combined facilities attract more visitors than most of them could do individually.

A study of recreation subdivisions in the mountains west of Washington, D.C., clearly demonstrated the impetus provided for new subdivisions when others also were operating in the same area.⁶ The same principle applies everywhere in recreation development.

Competition and Complementarities Between Public and Private Facilities

Private operators frequently accuse public agencies and large corporations of "unfair competition." Such accusations have merit where high-quality conveniences are free or are available at rates which would not recapture the investment cost in a reasonable manner.

Free facilities and services, however, are often provided by public agencies because the private sector could not afford to provide them

⁴ Hugh A. Johnson, Judith M. Huff, and J. J. Csorba. Private outdoor recreation enterprises in rural Appalachia. U.S. Dept. Agr., ERS-429, 1969.

⁵ Hugh A. Johnson and Jeanne M. Davis. Private outdoor recreation facilities. Outdoor Recreation Resources Rev. Comm. Study Rpt. 11, Govt. Print. Off., 1962.

⁶ Hugh A. Johnson. Rural residential recreation subdivisions serving the Washington, D.C. area, 1963. U.S. Dept. Agr., Agr. Econ. Rpt. 59, 1964.

or it has not responded to a demonstrated demand. In addition, certain measures more efficiently provided by public agencies are required to protect the health of users. Other improvements are needed to help conserve the natural resources of areas used intensively by the public.

Many private campground operators owe their present success to location of public campgrounds nearby. Generally speaking, public campsites tend toward the rustic and provide minimum services consonant with requirements for health and demands for services. Private operators may be able to furnish additional facilities and services demanded by other visitors using the same recreation areas. Frequently, the public and private developments need not be competing for the same customers at all.

Riding stables, dude ranches, wilderness pack trips, and river boating operations depend on public access for their space. Hunting and fishing guides depend on public lands and waters for their livelihood. Motels, restaurants, gas stations, and other tourist services often locate at a central point for people who want to visit major attractions at publicly owned facilities.

Recreation on Farms and Ranches

The economic feasibility of recreation enterprises on farms and ranches depends on the demand for the resources available and the manager's abilities and interests. Analysis of opportunities must follow the same tortuous route through joint costs, opportunity costs, risk, seasonal labor utilization, and demand for the products as is done for any farm enterprise.

The size and intensity of recreation enterprises on farms or ranches depend upon whether one aims toward (1) commercial or major enterprise organization, (2) supplemental or complementary enterprises, or (3) capturing income from opportunities.

Commercial, or major, enterprises require the same high degree of management as any other farm operation. Successful operators frequently find that serving the recreation needs of the public is more satisfying and more profitable than alternative farming opportunities. Farm enterprises may then be operated in a supporting role.

Supplemental, or complementary, enterprises such as vacation farms, fee fishing ponds, shooting preserves, or small campgrounds fit in around the major farm operations. Opportunity operations are those which charge for some recreation use of their resources, without major additional investment. Boarding horses, sale of hunting or fishing rights, and sometimes rustic camping are in this category.

Budgetary analyses by ERS and others have almost universally demonstrated the same direct relationships between size of recreation enterprise and net returns as for other farm enterprises. Major enterprises are usually managed better than minor ones and tend to be relatively more profitable.

Apparent low returns, however, may understate the actual net income from minor recreation enterprises. Operators frequently credit total taxes, total electric bills, total fire insurance, or building repairs against the recreation business and thus tend to understate the true net cash returns.

Several studies of net returns from rural recreation enterprises are summarized in table 1. Generally, these enterprises were smaller than commercial scale and often supplemented other enterprises or were supplemented by other income sources.

Reasons for inherently low returns involve the highly seasonal nature of the business; dependence on part-time, unskilled labor and management; poor location relative to demand; high overhead costs per productive operating unit; and inability to attract and hold adequate numbers of customers.

A nationally syndicated economic observer reported a few years ago that three out of five small businesses begun would fail financially, or go out of business for some other reason, within 5 years of the time they started. My experience and observations show that small recreation enterprises will demonstrate no better success. And probably not more than half of those that hang on for 5 years will be really financially successful.

Even the larger, complex, commercial recreation enterprises require exceptional management, with ability to manage a business providing an esthetic service to an ephemeral public. Relatively few rural people have the needed managerial abilities. As with every

Table 1.--Average net returns from recreation enterprises

Recreation enterprise	Arkansas (1962) ¹	Wisconsin (1965) ²	Appalachia (1966) ³
	Dollars	Dollars	Dollars
Private campground...	640	2,227	1,510
Hunting preserve.....	-4,000	⁴ 2,814	⁶ 330
Fishing area...	320	3,102	770
Riding stable..	1,100	3,803	⁷ 2,490
Vacation farm..	--	⁵ 865	620
Boating rentals	1,300	--	--
Guide services.	1,800	--	--

¹ Max F. Jordan. Opportunities for improving rural-family income through recreation enterprises. Ark. Agr. Expt. Sta. and U.S. Dept. Agr., Bul. 673, 1963.

² Data from Res. Rpts. 36, 43, 44, 46, and 47, Res. Div., Col. Agr. and Life Sci., Univ. Wis. Rudolph A. Christiansen and various authors.

³ Hugh A. Johnson, Judith M. Huff, and J. J. Csorba. Private outdoor recreation enterprises in rural Appalachia. U.S. Dept. Agr., ERS-429, 1969.

⁴ Pheasant farms, predominantly.

⁵ Does not include two large full-time operations.

⁶ Primarily lease of goose and duck blinds.

⁷ Often restricted to boarding horses.

other kind of successful undertaking, one must provide the kind and quality of service wanted by the public in a highly competitive market.

Opportunities exist in almost every community for developing recreation enterprises. Chances for financial success, however, are best in areas close to large population centers and to areas where water-based recreation can be developed.

Summary

Outdoor recreation is an economic good both produced and utilized at some cost in cash, effort, and use of resources.

Demand for outdoor recreation is strong and should remain dynamic during the foreseeable future. Part of this strength will be caused by population growth and higher levels of income.

Another part, however, will be created as present population becomes more accustomed to outdoor recreation as a use of leisure and looks for new kinds of recreation. Development of new facilities and services to meet presently unsatisfied demand and new kinds of equipment to create new demands also will contribute to overall growth.

Demand in local areas for particular kinds of recreation and for individual recreation enterprises will vary from the general picture. The combinations and quality of natural resources available, their location relative to population centers, the socioeconomic characteristics of users of recreation facilities in that area, the kinds and quality of facilities offered, and the costs of participation are major factors for consideration when assessing potential demand.

Private recreation enterprises generally have the best opportunities for success in or near

densely populated areas where it is economically feasible to provide capital, management, and labor for services and facilities. The concentrated use and the specialized nature of these services make it economically practical to collect fees. Opportunities for private enterprise weaken as dependence on services and facilities decreases. Under these conditions, private enterprise still can provide specialized services which utilize public resources in a complementary relationship. Motels, gas stations, and restaurants complement highways. Guides and packers--with their horses, equipment and knowledge--complement Government ownership of land resources.

Opportunities for new recreation-serving enterprises should increase in response to the growing demand. Success, however, will depend on how well management gauges the demand when developing its enterprises and how effective it is in managing the business.