Agribusiness & Applied Economics Report No. 537-S **July 2004**

Characteristics of Nature-based Tourism Enterprises in North Dakota – Summary

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Introduction

Recreational activities related to North Dakota's wealth of natural resources are well-established. Camping, hunting, fishing, birding, and wildlife viewing are some of the outdoor recreational opportunities available in North Dakota. In recent years, North Dakota's abundant resources have attracted visitors from around the country and the world (Bangsund and Leistritz 2003). In addition to providing recreational activities for residents and visitors alike, natural resource-based tourism is a basic sector (a.k.a., primary sector) that may have considerable potential for creating economic opportunities in rural areas (Bangsund et al. 2002). Outdoor recreational activities are included in what has been coined natural resource-based tourism, which encompasses a wide range of activities and services. Examples include agri-tourism (e.g., working farm or ranch activities, trail and wagon rides, corn maze, pumpkin patch), soft adventure (e.g., hiking, biking, birding, hunting, horseback riding, snowmobiling), and water sports (e.g., fishing, boating, skiing, canoeing), to name a few activities.

Tourism in general, and to a lesser degree nature-based tourism, in North Dakota has only recently been recognized for its economic development potential. Expenditures by out-of-state visitors have been the most rapidly growing component of North Dakota's economic base in the 1990s, and tourism has grown into the second largest basic (primary) sector in the state's economy (Coon and Leistritz 2003). While not all of the spending by out-of-state visitors is associated with outdoor recreation and nature-based tourism, recent increases in numbers of non-resident hunters suggest that North Dakota's natural resources and outdoor recreation opportunities have been an important source of increased visitor spending (Bangsund et al. 2002).

Economic development and diversification have been priority concerns for the state's policymakers for the past two decades. While the manufacturing and service sectors have registered substantial employment gains in recent years, most of that growth has occurred in North Dakota's four largest urban centers (Bismarck, Fargo, Grand Forks, and Minot) (Coon and Leistritz 2003). Given the difficulty of maintaining the state's family farms and rural population without development of locally-based non-farm income sources, landowners and local decision makers now recognize the importance of developing resource-based tourism activities that may have considerable potential for creating economic opportunities in rural areas.

Resource-based tourism can attract new dollars to rural areas. Gross business volume from the 2001-2002 hunting and fishing seasons alone totaled $1 billion in North Dakota (Bangsund and Leistritz 2003). In addition to new spending in local economies, especially rural economies, resource-based recreational opportunities can be important considerations for individuals and firms seeking to locate within the region, including urban areas (Deller et al. 2001, McGrannahan 1999). While anecdotal evidence suggests that natural resource-based tourism is growing in North Dakota, with the exception of a periodic assessment of hunting and angling activity (Bangsund and Leistritz 2003; Lewis et al. 1998), little research has been done on this emerging tourism sector.

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Objectives

Study objectives were to identify the type of services and activities most frequently offered by outdoor recreation-related enterprises and identify basic business characteristics of enterprises currently operating nature-based or outdoor recreation-related businesses. Landowners, entrepreneurs, economic development professionals, and policy and decision makers can use this information to facilitate potential economic development opportunities. This study represents not only the first step in describing North Dakota's fledgling nature-based tourism industry, but also represents the most comprehensive research to date.

Methods

A total of 788 outdoor recreation-related businesses representing a broad spectrum of enterprises and offering a variety of activities and services, including farm- and ranch-based activities (horseback riding, cattle drives, etc.), hunting, fishing, birding and wildlife viewing, lodging, hiking, biking, snowmobiling, and similar activities, were surveyed in 2003 (Table 1). Research efforts were directed toward those enterprises where the primary business focus was related to outdoor recreational activities and did not include businesses such as gas stations and convenience stores, cafes and restaurants, and retail stores. While these types of businesses may have a portion of their sales derived from individuals pursuing outdoor recreation-related activities, outdoor recreation-related activities are not the primary focus of their business and accordingly were excluded from the survey.

Table 1. North Dakota Outdoor Recreation-related Businesses, Response Rate, by Enterprise Type, 2003

Enterprise Type[1]	sample size	response rate
	-number-	-percent-
Guides	417	22.3
Bed and Breakfast	66	28.8
Agri-tourism/ birding/fossil digs	18	55.5
Camping	92	26.1
Miscellaneous	195	24.6
Total	788	24.6

[1]Descriptions of specific activities and services for each enterprise type are detailed in Hodur et al. 2004.

Because no comprehensive list of outdoor recreation-related enterprises existed, a mailing list was developed from the following sources: (1) North Dakota Game and Fish Department (listing of licensed guides and outfitters), (2) North Dakota Tourism Department, (3) local convention and visitors bureaus, and (4) Internet listings, brochures, and trade and travel magazines and publications. The mailing list was divided into five basic study groups: (1) guides and outfitters (both hunting and fishing), (2) bed and breakfasts, (3) campgrounds, (4) agri-tourism, birding, and fossil digs, and (5) miscellaneous. A miscellaneous category was created for those enterprises where the type of business was not clearly distinguishable.

A mail survey was developed to identify the primary focus of the business, services provided, business characteristics (year established, number of employees, months of operation), customer characteristics, business revenues and expenditures, as well as to gauge respondents' perceptions and attitudes on a range of issues. The overall response rate was 24.6 percent.

Results

Business Characteristics

Nearly half (45 percent) of the respondents indicated the primary focus of their enterprise was related to hunting (Table 2), such as guiding services either with or without lodging and/or meals, fee hunting, and/or hunting preserve. The remainder of the businesses were fairly evenly distributed by business type. Seven percent of the enterprises indicated the primary focus of their business was 'agri-tourism, birding/wildlife viewing, and fossil digs,' 10 percent of the enterprises indicated 'campground/limited service resort/marina,' and 16 percent of respondents indicated the primary focus of their business was 'bed and breakfast/lodging only' (Table 2).

One of the main objectives of the study was to identify the type of services and activities most frequently offered by outdoor recreation-related enterprises. Respondents indicated services related to 'lodging, meals, and food and beverage' were offered most frequently (71 percent), with services and activities related to 'hunting,' such as guided hunting, fee hunting and/or game cleaning, offered the next most frequently (62 percent) (Table 2). Activities related to 'birding and wildlife viewing,' 'hiking, biking, and other activities,' and 'farm- and ranch-related activities' were offered less frequently, 18, 16, and 14 percent, respectively (Table 2).

Table 2. Business Characteristics of Outdoor Recreation-related Businesses, 2003

Business Characteristic	percent
Primary business focus:[1]	
Hunting lodge, guiding, fee hunting	45.3
Bed and Breakfast	16.1
Fishing guide, full service resorts	13.5
Campground, limited service resort	10.4
Agri-tourism, birding, fossil digs	7.3
Other	7.3
(n)	(192)
Type of services provided:[1]	
Lodging, meals, food and beverage	70.9
Hunting-related services and activities	61.7
Fishing and/or water-related services and activities	30.1
Wildlife viewing, birding, and/or sightseeing activities	18.7
Hiking, biking, winter activities, and/or water sports	16.4
Agriculture and/or farm- and ranch-related activities	14.5
Fossil digs, archaeological exploration, historical tours	4.4
(n)	(147)

[1]Specific services and activities included in each business category and for each type of business are detailed in Hodur et al. 2004.

Income and Demographic Characteristics

Revenues from the operation of an outdoor recreation-related business were not the primary source of income for most respondents (Table 3). Only 15 percent of respondents indicated their outdoor recreation-related business was their primary source of household income. Sixty-four percent of respondents indicated 1 to 25 percent of their annual household income was from their outdoor recreation-related business. Only 8 percent indicated income from their outdoor recreation-related business was more than 75 percent of their annual household income. On average, 25 percent of respondents' annual household income was from their outdoor recreation-related business (Table 3).

Table 3. North Dakota Outdoor Recreation-related Businesses, Income Characteristics, 2003

Item	--percent--
Primary Source of Income:	
Salary/wages from either a private firm or public entity	29.6
My farm and/or ranch	26.5
My outdoor recreation-related business	14.8
My business not related to outdoor recreation	11.6
Retirement or investment income	10.6
Other	6.9
(n)	(189)
Percentage of Household Income from Outdoor Recreation-related Business:	
Zero	10.4
1 to 5 percent	23.9
6 to 25 percent	40.5
26 to 50 percent	12.9
51 to 75 percent	3.7
more than 75 percent	8.6
(n)	(163)
Average Percentage of Annual Household Income from Outdoor Recreation-related Business	24.7
(n)	(146)

Business Operations

Consistent with the percentage of the hunting-related enterprises in the study group, surveyed businesses most frequently operated in September and October (Table 4) while a third of the respondents indicated they were open year round. Most outdoor recreation-related businesses surveyed were relatively recent start-ups. Of the businesses surveyed, 85 percent have begun operations since 1990 (Figure 1). Additionally, the number of businesses started each year has grown with the trend sharply upward since the mid-1990s.

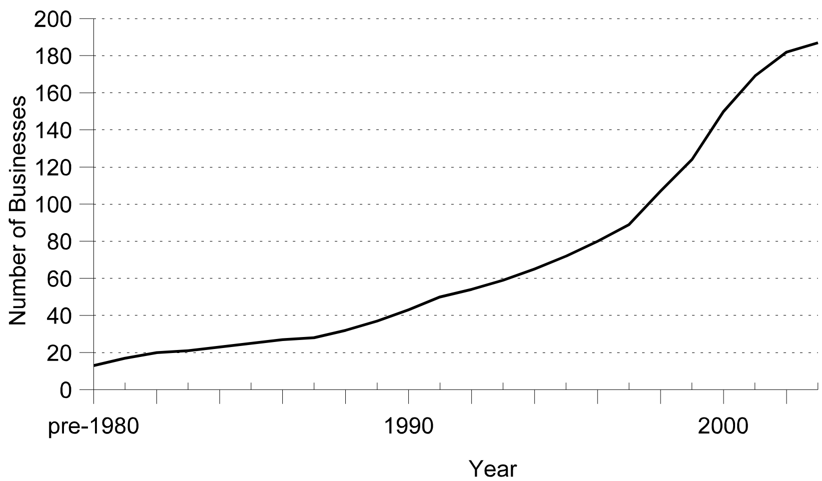

Figure 1. Year Business Operations Began, Outdoor Recreation-related Businesses, 2003

Table 4. Months of Operation, Outdoor Recreation-related Businesses, 2003

Months	--percent--
Year round	36.0
January	9.0
February	6.9
March	6.9
April	12.2
May	20.6
June	25.4
July	25.9
August	29.1
September	47.1
October	55.6
November	36.5
December	24.9
(n)	(189)

Most businesses do not have paid employees (72 percent), but half of the respondents indicated their business utilized unpaid labor from family members. Those respondents utilizing unpaid labor from family members reported an average of 2.2 unpaid family members involved with the outdoor recreation-related business (data not shown).

Customer Characteristics

Respondents were asked a series of questions about the number and characteristics of their customers. Respondents were asked to estimate the number of customer days for the past three years and to predict the change in customer days from 2002 to 2003. A customer day was defined as one person participating in an activity or utilizing a service offered by the respondent for at least part of a day. For example, 2 individuals participating in an activity for 3 days would represent 6 customer days. Respondents most frequently (just over 50 percent) indicated 1 to 100 customer days in 2000, 2001, and 2002 (Table 5). Only 11 percent of respondents in 2000, 12 percent in 2001, and 14 percent in 2002 indicated more than 1,000 customer days per year. The average numbers of customer days was 817 in 2000, 811 in 2001, and 852 in 2002. Median numbers of customer days were much lower, 74 in 2000, 80 in 2001, and 90 in 2002, indicating the average was distorted by a few observations with very high numbers of customer days. Total number of customer days reported by all respondents increased from 106,272 in 2000 to 113,567 in 2001, a 6.8 percent increase, and to 129,533 in 2002, an additional 14 percent increase (Table 5). Further, nearly half of the respondents indicated they believed the number of customer days will increase in 2003 (data not shown).

Table 5. Number of Customer Days, 2000 through 2002, Outdoor Recreation-related Businesses

Customer Days[1]	2000	2001	2002
	----------------------------percent-------------------------		---
Zero	3.9	2.9	1.3
1 to 100	56.7	56.1	57.0
101 to 200	6.2	7.2	6.6
201 to 300	7.0	6.5	5.3
301 to 500	7.0	2.1	7.3
501 to 1000	8.5	12.2	8.6
1,000 or more	10.8	12.2	13.9
(n)	(129)	(139)	(151)
Total number of customer days reported	106,272	113,567	129,533
Average number of customer days per business	817	811	852
Median number of customer days per business	74	80	90
Mode number of customer days per business	30	40	30

[1]Customer days is a function of the number of days, either a full day or part of a day, and the number of individuals who participate in a given activity. For example, two individuals that participate in an activity for three days would represent six customer days.

Land Use

Land use and land access for outdoor recreation-related activities, especially hunting, has been a hotly debated issue in recent years (Bihrle 2003; McFeely 2002). To determine the extent businesses in the study group had access to and/or utilized various types of land during the course of the operation of their business, respondents were asked how much land they had access to and if land use had changed in the last three years. Thirty-six percent of the respondents indicated land use and access to land was not applicable to their type of business. The remaining respondents generally did not report access to especially large acreages of land.

Forty-nine percent of respondents reported access to 1 to 1,500 acres of owned land (land owned by the owner/operator of the outdoor recreation-related enterprise), followed by 20 percent that indicated utilizing no owned land, and 15 percent that indicated they had access to 1,500 to 3,000 acres of owned land for their business. Only 4 percent of the respondents indicated land access of more than 10,000 acres of owned land. Over half of the respondents indicated no access to leased land, and 23 percent indicated they had access to 1 to 1,500 acres of leased land (Table 6). Respondents largely did not utilize public land as 90 percent of respondents indicated they do not access public land for their outdoor recreation-related business
(Table 6).

Table 6. Acres of Land Used for Outdoor Recreation-related Businesses, 2003

Acres	Owned Land	Leased Land	Public Land
	--------------percent-----------------		
Zero	20.5	54.7	89.9
1 to 1,500	48.7	23.1	6.4
1,501 to 3,000	15.4	8.6	0.0
3,001 to 5,000	8.6	4.3	1.8
5,001 to 10,000	2.6	6.0	0.9
10,000 or more	4.3	3.4	0.9
(n)	(117)	(117)	(109)
Total number of acres reported	243,000	255,000	38,000

Average acreages of owned land were 2,077 acres; however, the mode was only 500 acres indicating a few very large observations distorted the average. For businesses focused primarily on hunting, average acres of owned land were 2,379, and median acres of owned lands were 1,119 (Table 7). Average land use by other business types was considerably less than hunting-related businesses, except for businesses in the ‘agri-tourism, birding, and fossil digs’ category (Table 7). Respondents were also asked if the amount of land used in conjunction with their outdoor recreation-related business had changed in the last three years. A majority of the respondents (70 percent) indicated that land use for their outdoor recreation-related business had not changed in the last three years, 9 percent said land use had decreased in the last three years, and 21 percent said land use had increased in the last three years (data not shown).

Seventy-one percent of clientele came from outside North Dakota, while 29 percent were North Dakota residents. Of the non-residents, 23 percent were from states adjacent to North Dakota and 46 percent were from elsewhere in the United States. Outdoor recreation-related enterprises indicated their customers were most frequently individuals (39 percent), followed by non-family groups (27 percent) (e.g., friends, corporate- sponsored groups, clubs, associations) (Table 8). Family groups were cited by respondents least frequently. On average, only 15 percent of surveyed businesses' customers were family groups.

Table 7. Amount of Owned Land Used for Outdoor Recreation-related Activities by Type of Business, Outdoor Recreation-related Businesses, 2003

Business Type	Average acres	Median acres	Zero acres	1-1,500 acres	1,501-3,000 acres	3,001-5,000 acres	5,001-10,000 acres	10,000 or more acres	Total acres
	---------acres---------		------------------------percent of respondents--------------------------						
Hunting-related activities	2,379	1,119	20.8	38.9	19.4	12.5	2.8	5.6	62.1
(n)					(72)				
Campgrounds/limited service resorts	69	0	15.4	84.6	0.0	0.0	0.0	0.0	11.2
(n)					(13)				
Bed and breakfast/lodging	869	190	10.0	60.0	30.0	0.0	0.0	0.0	8.6
(n)					(10)				
Fishing/full service marina	57	0	55.6	44.4	0.0	0.0	0.0	0.0	7.8
(n)					(9)				
Other	870	40	14.2	71.4	14.3	0.0	0.0	0.0	6.0
(n)					(7)				
Farm & ranch, birding & fossil digs	2,212	40	0.0	60.0	0.0	20.0	20.0	0.0	4.3
(n)					(5)				
Total (s)	2,077	500	20.7	49.1	15.5	8.6	2.6	3.5	100.0
(n)	(116)	(116)	(24)	(57)	(18)	(10)	(3)	(4)	(116)

Table 8. Customer Characteristics, Outdoor Recreation-related Businesses, 2003

Characteristic	Percent of Customers
Customer Residency	
Local Residents	10.7
ND Residents from elsewhere in the state	18.5
Non-residents from adjacent states (MN, SD, MT)	22.6
Non-residents from elsewhere in the U.S.	46.0
Canada residents	0.9
Other International residents	0.6
(n)	(180)
Customer Characteristics	
Individuals	39.4
Couples	18.7
Family groups with children	14.5
Non-family groups	26.8
(n)	(182)

Financial Characteristics

As reported previously, the primary source of household income for most respondents was not from respondents' outdoor recreation-related business. Gross and net income from respondents' recreation-related business were consistent with that of a secondary income source. Forty-six percent of respondents reported $1 to $10,000 in gross income (Table 9) while only 20 percent reported gross income of more than $50,000 from their outdoor recreation-related business. Average gross revenue was $58,000 with a median gross income of $10,000, the much lower median again highlighting the effect of a few large observations on the average. Respondents most frequently reported gross income between $1 to $10,000 (46 percent) providing a more accurate assessment of the typical gross income of outdoor recreation-related businesses than the average gross income figure.

Trends were similar for net income; 25 percent of respondents reported net losses or zero net income, and 46 percent reported net income of $1 to $10,000 (Table 9). Average net income was $9,700 and the median net revenue was $2,000. As was the case with gross income, the distribution of net income provides a more accurate description of typical net incomes (Table 9). Twenty-one percent of respondents indicated a net loss, 4 percent reported zero net income, and 46 percent reported net income of $1 to $10,000. Total gross revenue of all surveyed enterprises totaled $7.1 million with total net revenues of $1.1 million (Table 9).

Table 9. North Dakota Outdoor Recreation-related Businesses, Gross and Net Revenue, 2003

Item	
Gross Revenue	--percent--
Zero	4.0
$1 to $10,000	46.4
$10,001 to $25,000	16.8
$25,001 to $50,000	12.8
$50,001 to $100,000	8.0
More than $100,000	12.0
	--dollars--
Average Gross Revenue	57,999
Median Gross Revenue	10,000
(n)	(125)
Net Revenue	--percent--
$10,000 or more loss	5.9
$5,000 to $9,999 loss	3.4
$1 to $4,999 loss	11.8
Zero	4.0
$1 to $10,000	46.4
$10,001 to $25,000	16.8
$25,001 to $50,000	12.8
$50,001 to $100,000	8.0
	--dollars--
Average Net Revenue	9,730
Median Net Revenue	2,000
(n)	(119)

Average gross revenue by business type varied widely from an average of $166,000 for ‘full-service resort/marina, fishing guide’ to less than $10,000 for ‘bed and breakfast, lodging only’ and ‘birding, agri-tourism, fossil digs, other’ (Table 10). For all but ‘birding, agri-tourism, fossil digs, other’ median gross incomes were much lower reflecting the influence of a few very large observations that distorted the averages. Median gross incomes ranged from $35,000 for ‘campground,/limited service resort/marina’ to $4,200 for ‘bed and breakfast, lodging only’. Average net revenues by business type were also substantially higher than median net revenues. Median net revenues ranged from a net loss of $750 for ‘campground/limited service resort/marina’ to $3,000 for ‘full-service resort/marina, fishing guide’. Net revenue as a percentage of gross revenue overall was 16 percent; however, varied from 4 percent to 24 percent, depending on business type (Table 10). Results should be reviewed with caution due to the limited number of observations for some business types.

Table 10. Gross Revenue, Net Revenue, and Net Revenue as a Portion of Gross Revenue, by Business Type, Outdoor Recreation-related Businesses, 2003

Item	All business types	Birding, agri-tourism, fossil digs, other	Hunting lodge, guides, outfitters, fee hunting, and game farms	Full-service resort/marina, fishing guide	Campground/ limited service resort/marina	Bed & Breakfast, lodging only
	---dollars---					
Total gross revenue	7,136,000	26,000	2,931,358	2,991,377	618,429	168,448
(n)	(125)	(3)	(67)	(18)	(9)	(18)
Net profit or loss	1,158,000	14,800	698,450	294,951	52,553	6,881
(n)	(119)	(4)	(66)	(15)	(8)	(17)
Average gross revenue	57,999	8,667	43,752	166,188	68,714	9,358
Median gross revenue	10,000	9,000	10,000	16,000	35,000	4,250
(n)	(125)	(3)	(67)	(16)	(9)	(18)
Average net revenue	9,730	3,700	10,581	19,663	6,569	404
Median net revenue	2,000	2,400	2,400	3,000	-750	0
	(119)	(4)	(66)	(15)	(8)	(17)
	---percent---					
Average net revenue as a percentage of gross revenue	16.0	24.0	24.0	10.0	8.0	4.0
(n)	(119)	(12)	(67)	(16)	(8)	(17)

Technical Assistance, Marketing, and Issues and Attitudes

One of the research objectives was to identify respondents' areas of interest for technical assistance. Economic development professionals, as well as other outreach organizations, were interested in knowing and understanding what types of information would be most useful to business owners or individuals that were considering starting an outdoor recreation-related business. To facilitate outreach efforts, respondents were asked to rate on a scale of 1 to 5 (where 1 is not helpful and 5 is very helpful) the types of information or technical assistance that would be helpful to their business. Respondents most frequently stated that information related to 'marketing and advertising' (60 percent) and 'web site design and internet applications' (65 percent) would be most helpful. Responses are detailed in Table 11.

Respondents also were asked their perception of the economic development potential of various outdoor recreation activities. Nearly all respondents (90 percent) agreed that hunting and fishing had at least some economic development potential (respondents rated economic development potential on a 5-point scale where 1 is no potential, 3 is some potential, and 5 is great potential) (Table 12). Roughly half the respondents indicated birding, wildlife viewing, interpretive nature tours, off-road activities, water sports, and working farm and ranch activities had economic development potential. Across all activity types, only a small percentage–generally less than 10 percent–indicated they believed various activities had no economic development potential. Results are detailed in Table 12.

Respondents were generally positive about the current state and future potential of outdoor recreation-based tourism in the state. Over 75 percent of respondents agreed with the statement that outdoor recreation-related tourism enterprises offer both their local area and rural areas throughout the state economic development opportunities (Table 13). While 73 percent of respondents indicated that demand for their type of business had increased in the last three years, 64 percent indicated they needed more customers to operate at capacity. Three-quarters of respondents agreed there should be more promotion of the state as a tourism destination, and 60 percent disagreed with the statement that North Dakota has too few attractions to make tourism a viable economic development opportunity. Responses on the issues and attitudes section of the questionnaire are detailed in Table 13.

Key Findings

Businesses offering services and activities related to outdoor recreation are a relatively new phenomena in North Dakota. Eighty-five percent of businesses surveyed have started their business since 1990. The primary focus of outdoor recreation-related businesses was most frequently related to hunting and associated services. Services offered most frequently were 'lodging, meals, food and beverage services' and 'hunting-related services and activities.'

Respondents' outdoor recreation-related businesses were in most cases not the primary source of household income. For a majority of the respondents, income derived from their outdoor recreation-related business appeared to be supplemental. Only 14 percent indicated their outdoor recreation-related business was their primary source of household income. Gross and net income from the respondents' outdoor recreation-related business were consistent with that of supplemental income. Approximately half of the respondents indicated gross revenue of $10,000 or less from their business, and 36 percent indicated either zero net income or a net loss from their business. Forty-two percent of respondents indicated net income from their outdoor recreation-related business was $1 to $10,000.

Most businesses were seasonal, although approximately one-third operated year round. Most do not have paid employees, but half of the respondents indicated their business utilized unpaid labor from family members. Those respondents utilizing unpaid labor from family members reported an average of 2.2 unpaid family members involved with the outdoor recreation-related business. Businesses that offered hunting activities more frequently utilized land for their business than other business types, land use was most frequently less than 1,500 acres of owned land (39 percent).

Table 11. Perceptions Regarding Need for Technical Assistance, Outdoor Recreation-related Businesses, 2003

Item	Average Score[1]	Very Unhelpful	Not Helpful	Neutral	Helpful	Very Helpful
		---	----------	-percent-	----------	---
Marketing/advertising	4.0	9.3	3.5	16.9	21.5	48.8
Web site design, internet applications	3.8	6.5	5.9	21.8	32.3	33.5
Legal (insurance, liability contacts, state/local regulations)	3.4	13.9	4.1	33.5	26.6	22.0
Habitat/land mgmt. and improvement	3.1	24.6	5.4	27.5	16.8	26.4
Industry trends and updates	3.1	15.6	9.0	34.1	28.1	13.2
Personnel mgmt./guest relations	2.9	19.2	10.2	45.5	15.0	10.2
Business and/or financial management; strategic planning	2.8	24.7	9.0	41.0	16.3	9.0
(n)				(169)		

[1]Average score based on a scale from 1 to 5 where 1 is not helpful and 5 is very helpful.

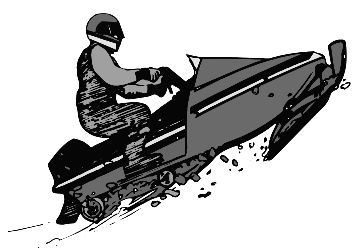

Table 12. Perceptions of the Economic Development Potential of Various Outdoor Recreation Activities in North Dakota, Outdoor Recreation-related Businesses, 2003

Activities	Average Score[1]	No Potential	--------	Some Potential	--------	Great Potential
		---------------------------------------		percent		---------------------------------------
Birding, wildlife viewing, interpretive nature tours	3.6	7.8	6.7	34.6	22.9	27.9
Off-road activities (hiking, biking, skiing, wilderness/adventure tours)	3.4	7.3	12.3	30.7	28.5	21.2
Off-road motor sports (snowmobiles, ATVs, dirt bikes)	3.2	9.7	14.8	36.4	25.6	13.6
Water sports (canoeing, sailing, boating, water skiing, jet skis, etc.)	3.4	9.6	6.2	37.1	28.1	19.1
Hunting and fishing (waterfowl, upland, big game, fishing)	4.6	2.2	0.5	7.1	20.1	70.1
Working farm and ranch activities, farm tours, trail rides, corn maze, etc.	3.4	8.5	10.7	34.5	28.2	18.1
Fossil digs, interpretive tours, archaeological explorations	2.9	16.4	18.1	37.8	18.1	9.6
Heritage tours	3.0	14.1	17.5	32.2	22.0	14.1
(n)[2]				(178)		

[1]Average score based on a score from 1 to 5 where 1 is no potential and 5 is great potential.
[2]Average number of responses for each variable.

Table 13. Issues and Attitudes Related to the Outdoor Recreation-related Tourism Sector, Outdoor Recreation-related Businesses, 2003

Issues	Average Score[1]	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
		---percent---				
There should be more promotion of the State as a tourism destination.	4.2	5.1	1.7	17.2	23.2	52.5
Outdoor recreation-related tourism enterprises offer my local area economic development opportunities.	4.1	5.1	3.4	14.6	27.0	50.0
Outdoor recreation-related tourism enterprises offer rural areas throughout the state economic development opportunities.	4.2	4.5	2.8	14.6	22.5	55.6
Demand for my type of business has increased in the last three years.	4.0	5.6	3.9	18.4	32.4	39.7
I need more customers to operate at full capacity.	3.8	9.8	7.5	19.1	21.4	42.2
Regulatory, legal, or liability issues are constraints to my type of business	3.7	7.8	6.7	34.3	13.5	37.6
Uncertainty regarding limits on non-resident hunters has hurt my business.	3.7	15.2	2.8	25.3	9.0	47.7
Liability and/or comprehensive insurance is prohibitively expensive.	3.4	14.2	6.8	28.4	22.2	28.4
My business is seasonal and I would like to find other ways to attract customers throughout the year.	3.3	17.7	7.4	28.0	18.9	28.0
I am currently having trouble attracting new customers.	2.8	28.2	16.1	23.6	16.1	16.1
I am unable to secure financing for business development or expansion.	2.5	29.0	13.0	42.0	11.2	4.7
I am unable to purchase liability and/or comprehensive insurance/insurance is unavailable.	2.1	45.3	15.9	25.9	6.5	6.5
North Dakota has too few attractions to draw enough visitors to make tourism a viable economic development opportunity.	2.2	42.8	17.8	2.6	13.9	5.0
(n)[2]				(175)		

[1]Average score based on a score from 1 to 5 where 1 is strongly disagree and 5 is strongly agree.
[2]Average number of responses for each variable.

Total number of customer days increased from 113,567 in 2001 to 129,500 in 2002. Approximately half of the respondents indicated they believed customer days would increase again in 2003. Respondents also were generally optimistic about the economic development potential of outdoor recreation-related activities. A large majority of respondents indicated they perceived each of the various types of outdoor recreation activities listed had economic development potential. Only a small minority of respondents–generally less than 10 percent–indicated they believed outdoor recreation activities had no economic development potential.

Respondents' optimism was apparent in their responses to several questions related to current issues and respondents' attitudes. Over fifty percent of respondents strongly agree with the statement that outdoor recreation-related tourism enterprises offered their local area economic development opportunities, and 72 percent agree with the statement that demand for their type of business had increased in the last three years. A majority of respondents (61 percent) disagreed with the statement that North Dakota has too few attractions to make tourism a viable economic development opportunity.

Research Limitations and Need for Further Research

As stated in the introduction, this research represents the first attempt to describe the emerging nature-based and outdoor recreation-related tourism sector in North Dakota. As is often the case with initial research efforts, there are limitations to the research findings. Accordingly, a number of research limitations should be noted. Future research efforts can be designed to address study limitations.

Because of the sensitive nature of financial information, many respondents did not complete the portion of the questionnaire detailing financial information. As a result of the limited number of responses from each study group, the potential for sampling error was substantial, especially for study groups with only a few enterprises such as 'birding, agri-tourism, and fossil digs.' Further data collection efforts may be necessary to identify financial characteristics and determine the economic contribution of the sector.

Because little was known about this emerging sector, identifying the appropriate businesses for survey purposes and creating a mailing list was difficult; no list of recreation-related businesses existed at the time of this study. While the most complete mailing list possible was developed, it is not possible to gauge the completeness of the list. Securing an accurate and comprehensive mailing list is not an uncommon challenge in preliminary research efforts like this one. Future research efforts will likely face similar obstacles, especially if the sector's recent growth trend continues.

Future research efforts should also consider other types of visitor activities not included in this research effort. Historical, heritage, and ethnic attractions and festivals did not fit into the scope of this study which focused solely on for-profit business enterprises. Visitor activities and attractions managed or promoted by state and/or local government agencies or non-profit associations are part of the tourism sector and should be examined either separately or included in future research efforts. The economic development potential of historic, heritage, and ethnic attractions and festivals should be recognized as part of North Dakota's nature and outdoor recreation-related tourism sector.

Finally, this research effort addresses the supply side of outdoor recreation-related tourism only. A complete assessment of the economic development potential of outdoor recreation-related tourism should include input from the customer's perspective. Future research is needed to assess the perspectives of both resident and non-resident consumers of outdoor recreation-related activities.

Conclusions

Outdoor recreation-related tourism represents a new and growing segment of North Dakota's tourism industry. Most enterprises are fairly recent ventures that do not represent a substantial part of most respondents' household income. New business start-ups have grown rapidly in recent years, and business owners are optimistic about the economic development potential of outdoor recreation-related services and activities.

This research represents the first effort to characterize businesses related to outdoor recreation, providing a snapshot of the sector. Outdoor recreation-related tourism is an emerging sector constantly changing with new business start-ups, expansions, and contractions. The sector, and businesses operating in the sector, could look very different in just a few years. In the meantime, the findings of this report will have provided entrepreneurs, policymakers, and economic development professionals a first look at the characteristics of the state's outdoor recreation-related tourism industry that will assist their efforts to continue to promote and develop what could become an increasingly important sector in the North Dakota economy.

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Acknowledgments

This document is a summary of a more comprehensive report which contains supplemental information and additional documentation of study results. Copies of this report and a single copy of the main report, *Characteristics of Nature-based Tourism Enterprises in North Dakota*, Report No. 537, are available free of charge. Please address your inquiry to Carol Jensen, Department of Agribusiness and Applied Economics, North Dakota State University, P.O. Box 5636, Fargo, ND 58105-5636, phone 701-231-7441, fax 701-231-7400, or email at cjensen@ndsuext.nodak.edu. These publications can also be found on the internet at http://agecon.lib.umn.edu/.

Several individuals and organizations were helpful in providing data and information used in this study. Our appreciation and thanks are extended particularly to the outdoor recreation-related business operators who took time to complete the questionnaire. Without their input, this study would not have been possible.

Financial support was provided by the United States Department of Agriculture as part of the Regional Center for Rural Development in North Dakota and by the North Dakota Agricultural Experiment Station. Financial support also was provided by the New Economy Initiative (NEI), a program of the North Dakota Freedom of Enterprise Foundation.

The authors assume responsibility for any errors of omission, logic, or otherwise. Any opinions, findings, conclusions, or recommendations expressed in this publication are those of the authors and do not necessarily reflect the views of the United States Department of Agriculture or the New Economy Initiative.

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