

**Economic Impacts and Fiscal Costs of Public
Land Recreation in Clark County, Idaho**

by

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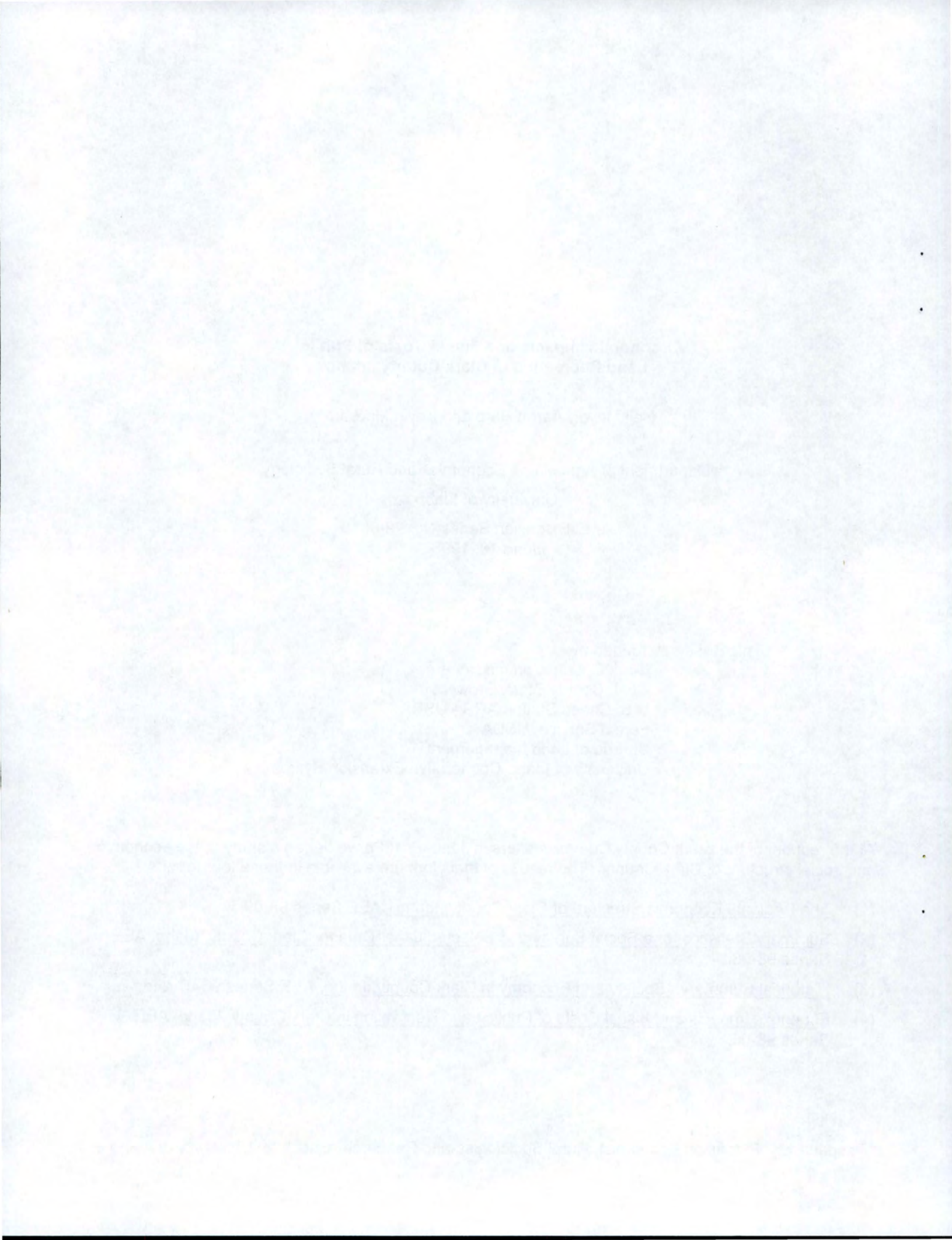
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At the request of the Clark County Commissioners in January 1995 we began a study of the economic and social structure of Clark County. The results of that work are available in these four reports:

- (1) The Regional Economic Structure of Clark County, Idaho. AEE Series 98-09.
- (2) Summary Statistics for a Social Survey and Selected Other Data for Clark County, Idaho. AEE Series 98-08.
- (3) Historical Summary: Society and Economy in Clark County, Idaho. AEE Series 98-07 and
- (4) Economic Impacts and Fiscal Costs of Public Land Recreation in Clark County, Idaho. AEE Series 98-06.

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Economic Impacts and Fiscal Costs of Public Land Recreation in Clark County, Idaho (AEES 98-06)

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Abstract

Regarding outdoor recreation on public land, what is the balance between additional economic activity generated within rural counties by such recreation and the costs which county governments and local citizens incur due to such recreation? On one hand, county governments often incur additional solid waste disposal, law enforcement, road maintenance, search and rescue, and ambulance expenditures directly attributable to local public land recreation. On the other hand, public land recreationists spend money in the economies of rural counties. Are these expenditures sufficient to offset the additional costs incurred? To examine the question, data were collected regarding purchases made by public land recreationists for trips to Clark County, Idaho, for three activities and in three seasons: summer camping/fishing, fall big game hunting, and winter snowmobiling. Visitor expenditure profiles were derived for each of these activities. County government expenditures attributable to each activity were calculated.

Introduction

Problem:

With the changing use of rural resources, the social and economic climates of rural counties have also changed. In the case of Clark County, local governments' share of timber revenues which went to support schools and local roads. Timber revenues have declined as harvests have been reduced. Payments in lieu of Taxes (PILTs) have not made up the difference. The net result is local units of government have been asked to provide services with fewer resources. This gives local government officials the choice of raising taxes or reducing services directly or through degradation. Either decision is not comfortable for elected officials. One of the options presented to rural community citizens as a means to expand economic activity and jobs is recreation. At the request of the Clark County Commission, we attempted to evaluate the revenues and costs which occur as a result of visitation. The recreation visitors interviewed were of three types: (a.) Labor Day weekend campers at Birch Creek Campground (a BLM facility) with limited facilities along a stream; (b.) hunters of deer and elk in October, 1997; and (c.) snowmobile riders in February, 1998.

Objectives:

1. Estimate the quantity and location (in or outside Clark County) of spending by three types of recreational visitors.
2. Estimate the costs to local government of providing certain services to recreational visitors.
3. Estimate a net position for local government of service provision.

Review of Other Studies:

There is considerable disagreement about the importance of recreation to rural counties. A study in Utah indicated that visitors to the Canyon Lands of the Southeastern part of the state spent \$11 to \$50 per trip. That amounted to \$4 to \$16 per day (Snyder et.al, page 81). A different Wyoming study showed daily per persons expenditures of \$14 for summer campers. Non-camper visitors daily expenditures were \$23. Winter visitors spent \$16 per day. Both of these areas required visitors to travel 5 or more hours from major population center.

Study Area:

As rural counties and economies continue to shift, stresses are placed on those local economies. The export base of the rural counties and communities are also shifting. The example county here is Clark County. Clark is one of the two lowest population counties (800+ persons) in Idaho. It is located on I-15 north of Idaho Falls on one of the main highways connecting Prairie Canada with Southern California. The southern part of the county is high altitude plane which has traditional grazing and irrigated crop production. The northern parts of the county contain the Centennial Mountains and the continental divide. Part of this area is in the Targhee National Forest (367,972 acres). This area is forested with streams and meadows interspersed. It is also the most favored area for recreational activity. There are also major areas under BLM (305,545 acres) and Idaho Department of Lands (118,080 acres) control. The net result is that of the 1,142,350 acres, 69% of the land is under public control of the above agencies. The commercial centers of the county include Dubois (county seat), Spencer (northern part of county on the Interstate), Kilgore (seasonal store in eastern end of the county) and Birch Creek (rural store open all year) in the western end of the county.

Research Approach and Methods

Introduction

We collected data regarding visitor spending for three primary public land, outdoor recreation activities in Clark County: 1) camping and fishing at Birch Creek Campground;

2) big game hunting in Clark County on or near the opening day of the general season for elk;
3) and snowmobiling in Clark County's highlands in February. After an initial discussion of the interview guide and general approach used in this study, these recreation types are treated in three separate sections. Each section presents methodological issues, findings regarding visitor spending, and findings regarding costs to local government related to the recreation activity.

Guided interview/survey

For this study we prepared a fairly specific interview guide. We were conscious of the fact that we would be interrupting people during their recreation, and our intent was to minimize this interruption by keeping the interviews as brief as possible, just a couple of minutes long at most. In order to achieve this brevity, we sacrificed the collection of some desirable socio-demographic data, concentrating instead upon the following:

- 1) Basic information about visiting party:
 - Where do you live?
 - First time to visit this year?
If not, how many times?
What times of year?
 - What things do you come here to do?
- 2) Basic information about spending for their trip:
 - What did you buy for this trip?
 - Where did you buy it?
 - How much did you spend?
- 3) Additionally, for hunters:
 - What game management unit(s) were you hunting in?
 - What animal(s) were you hunting for?
 - Did you get one (an animal)?

(See Appendix A for sample interview guides for campers, hunters and snowmobilers.)

Interviews with County Department Heads/Service Providers

We conducted interviews with the various county department heads and coordinators for county services whose departments or areas of responsibility include providing services that benefit outdoor recreation visitors to Clark County's public lands. These interviews were directed toward gathering two primary bodies of information. First, we wanted to determine the level at which different services were being provided to the county's outdoor recreation visitors. Second, we wanted to accurately estimate the cost of providing these services. Considerable time was spent with each interviewee to identify the relevant units for measuring these services-

-e.g., cost per hour, cost per mile--and then to establish an accurate estimate of the cost per unit for the service in question.

Interviews were conducted with the Clark County Sheriff, the head of the county's Road & Bridge Department, the volunteer Search and Rescue coordinator, and the coordinator for the county's ambulance service. The information gathered through these interviews was used to derive the costs for services presented in appendix B of this document.

Birch Creek Camper/Anglers--Labor Day Weekend 1997

Overview

Birch Creek flows through the dry, sagebrush desert of the valley bottom between the Medicine Lodge Mountains on the east and the Lemhi Range to the west in the western end of Clark County. Relatively primitive and made up of mostly undeveloped or dispersed camping sites, Birch Creek Campground, managed by the Bureau of Land Management, stretches for several miles along Birch Creek. The streamside growth of trees provides the only shade for the campers and anglers who come here. The Idaho Department of Fish and Game stocks trout in the creek during the fishing season, and fishing is an important part of what attracts visitors to the site. Local contacts and BLM staff attest to the large numbers of visitors who utilize Birch Creek on holiday weekends, especially Memorial Day and Labor Day weekends.

Methods

We attempted to interview and obtain spending data for each party of Labor Day weekend visitors to the Birch Creek site, both campers and day-users. To accomplish this, University of Idaho researchers and local volunteers made several visits to the site over the three-day weekend. Starting mid-morning on the first day and working from opposite ends, the interviewers moved from camp to camp, speaking with a member of each party. This person was asked to provide information regarding their trip and spending for the trip. On the second and third days' interviews, the pattern was the same, with the researchers approaching any and all newly arrived campers or day users who had not been previously interviewed. Interviewing 58 parties, we were able to come very close to a 100% sample of Birch Creek's visitors for Labor Day weekend.

Findings

Visitor Spending

Table 1 below presents a comparison of average spending per trip by party inside Clark County to outside Clark Co. by Birch Creek visitors for their Labor Day Weekend trips.

Table 1. Avg. Spending (per trip/party) by Birch Creek Visitors (Labor Day Weekend). (N=56 Parties).	
Location	Amount
Outside Clark Co. Spending	\$89.50
Inside Clark Co. Spending	\$2.33
Total	\$91.84

The relationship between spending inside Clark County and spending outside Clark Co. by Birch Creek visitors for their Labor Day Weekend trips is illustrated in Figure 1 below.

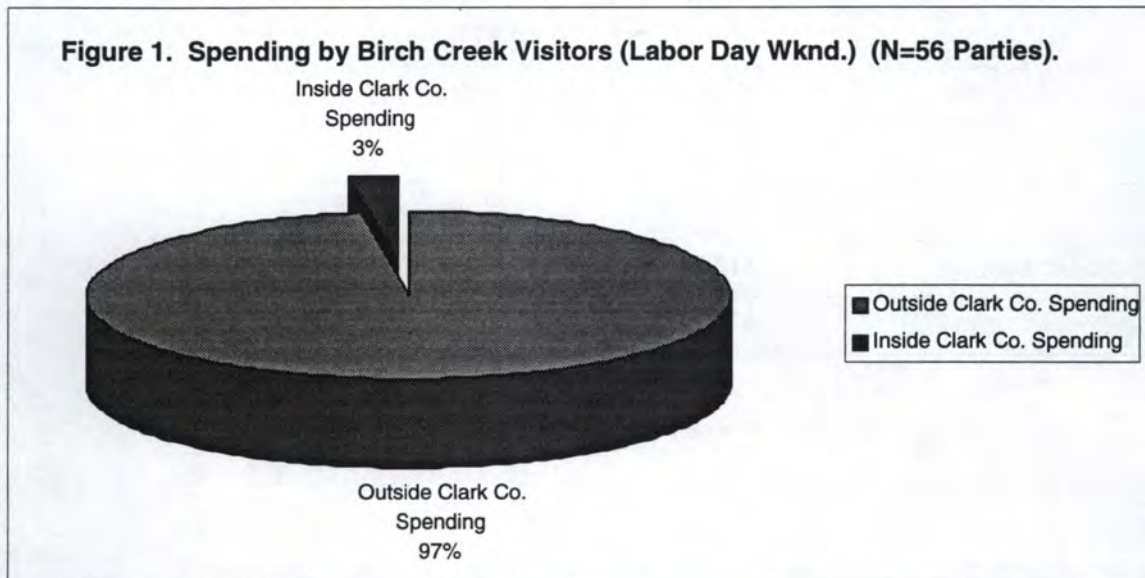


Table 2 below presents the distribution of Labor Day Weekend spending by Birch Creek visitors across Clark and nearby counties.

Table 2. County of Residence and Amount Expended.						
Bingham County	Bonneville County	Clark County	Fremont County	Jefferson County	Other Counties	Total
\$742.00	\$2,888.94	\$128.30	\$121.00	\$903.33	\$267.50	\$5,051.07

Estimate of Quantity and Location of Camper Party Spending

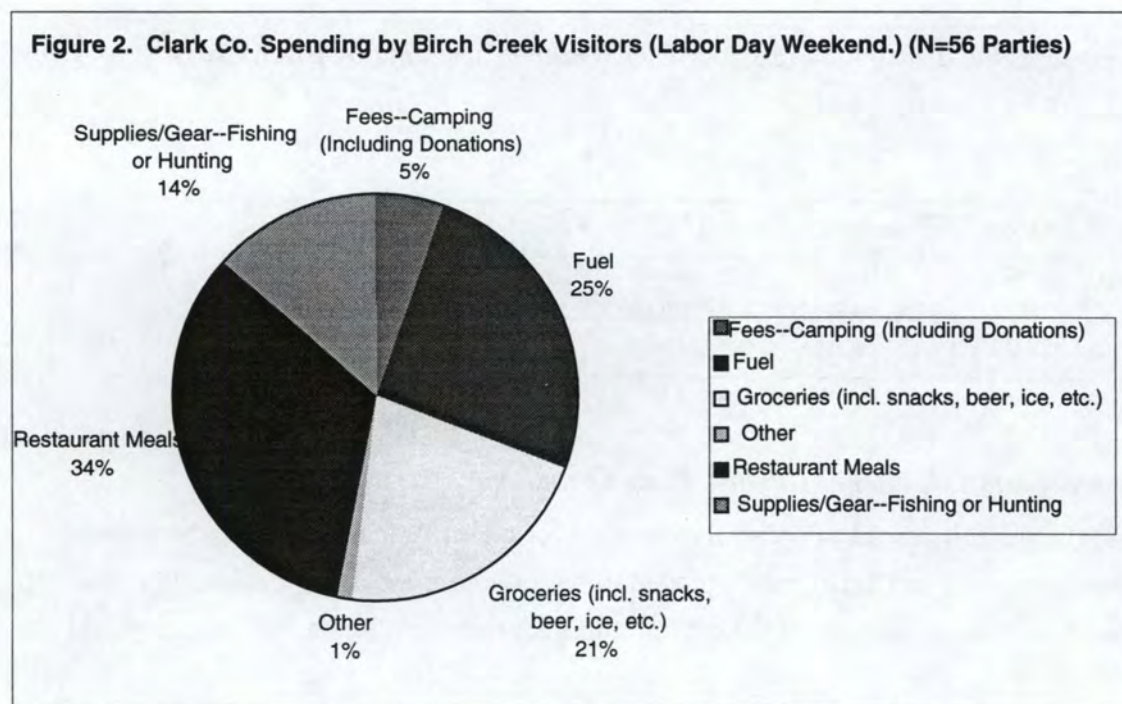
Campers bought the majority of the supplies they needed for their trip in the county where they resided. Expenditures made in Clark County tended to be restaurant meals, groceries, fuel, and fishing supplies. These were only 3% of the expenditures for the visit. Restaurant meals would

have the largest component of local resources. Groceries and fuel sales would be largely import products with only a local handling margin.

Table 3 below presents the distribution across spending categories for the 3% of the overall Birch Creek Labor Day recreationists' spending that occurred inside Clark County.

Table 3. Clark County Spending by Birch Creek Visitors (Labor Day Weekend). (N=56 Parties).		
Category	Total	Avg. per trip
Fees--Camping (Including Donations)	\$7.00	\$0.13
Fuel	\$32.50	\$0.59
Groceries (incl. snacks, beer, ice, etc.)	\$27.25	\$0.50
Other	\$1.25	\$0.02
Restaurant Meals	\$42.80	\$0.78
Supplies/Gear--Fishing or Hunting	\$17.50	\$0.32
Total	\$128.30	\$2.33

Figure 2 below illustrates this same distribution of spending across categories for the 3% of the overall Birch Creek Labor Day recreationists' spending that occurred inside Clark County.



Costs to Local Government

Law Enforcement

Table 4 below presents the documented Birch Cr. related law enforcement activity that occurred during the 1997 fishing season and that could be attributed to recreation visitation at the campground and vicinity. Records from the county dispatcher's log were reviewed with the County Sheriff to identify only those incidents that could be fairly attributed to Birch Creek visitor use. Appropriate costs per unit (derived from interviews with local officials) were used to estimate the cost for this activity.

Incident					Personnel			Vehicles			Total
Date	Description	Location	Entry	Response Type	Count	Hrs	Total	Count	Miles	Total	
07/21/97	Damage to property	Birch Creek Campground	9	Sheriff and/or Deputies	1	2	\$40.82	1	80	\$26.40	\$67.22

Solid Waste Handling

With regard to garbage, the Birch Creek Campground operates on a "pack it in; pack it out" basis. While irresponsible behavior on the part of some users in disposing of their garbage may create some litter problems on-site, Clark County does not incur any additional waste hauling expense related to the campground. The county's dumpster in that vicinity is closed except to rural residents and is emptied only about four times per year.

Ambulance

The ambulance service operating from Mud Lake, in Jefferson County, responds to an average of two calls per year to assist recreationists at Birch Creek. In this case, the estimated cost of providing this service is \$370.35 per call. The important factor here is maintaining a relatively high rate of success in collecting on bills for ambulance service (approximately 60%) and of charging rates for services and supplies sufficiently high to cover overhead expenses and defaults on unpaid bills.

Big Game Hunters--October 1997

Methods

Idaho Dept. of Fish & Game check station at Sage Junction

Since the hunters who come to Clark Co. disperse over a wide area, this user group presented a very different sampling challenge than did the relatively bounded population of campers and fishers visiting Birch Creek during a given three-day weekend. We sought an opportunity to efficiently interview/survey a large number of hunters. The Idaho Department of Fish & Game kindly allowed us to dovetail our interviewing with the regular operation of their hunter check station at Sage Junction on Interstate 15 near Hamer, ID. Our intent was to interview/survey all of the hunters reporting having hunted in Clark Co. This meant game management units 59, 59A, and portions of 60, 61, 60A.

In practice this meant working very closely with the Fish & Game officers to identify the interview respondents. The check station is set up as a "pull-through" operation. Fish and Game officers stepped-up as vehicles pulled to a stop. Successful hunters got out of their vehicles and interacted with Fish & Game officers while their kills were inspected. Unsuccessful hunters answered a few quick questions before proceeding on their way. If the hunter's answer to the "Which hunting unit?" question included a unit within or the Clark Co. portion of another unit, then we would step in and quickly conduct our brief interview. In order not to impede the flow of traffic through the check station, our interviews were whittled-down to the bare minimum, taking only two minutes from introduction and explanation through the final question and "thank you."

This approach left us with essentially a convenience sample with the following obvious limitations:

1. The check station, with its few days of operation for the hunting season and 9 AM to dusk hours of operation, reaches only a portion of the hunters traveling that route.
2. There are many routes by which hunters may leave Clark County that don't take them past Sage Junction or any other check stations. The Sage Junction check station really only taps into the southbound traffic on Interstate 15.
3. Certainly some hunters, though required to do so, do not pull off the highway and through the station.
4. Much of the time the rate of traffic was slow enough that we were able to interview each party of the hunters coming through the station from Clark County. However, during a few peak hours of check station operation, we were not able to keep up with the volume of hunter traffic through the station, and several parties who had hunted in Clark County left the check station without our being able to interview them.

Findings

Table 5 below presents a comparison of average spending per trip by party inside Clark County to outside Clark Co. for hunters interviewed at Sage Junction game check station who had hunted in Clark Co.

Table 5. Average Spending (per trip/party) by Hunters Interviewed at Sage Junction Game Check Station (N=96 Parties).	
Location	Amount
Outside Clark County Spending	\$139.60
Inside Clark County Spending	\$20.12
Total	\$159.72

The relationship between spending inside Clark County and spending outside Clark Co. by hunters interviewed at Sage Junction game check station who had hunted in Clark Co. is illustrated in the figure below.

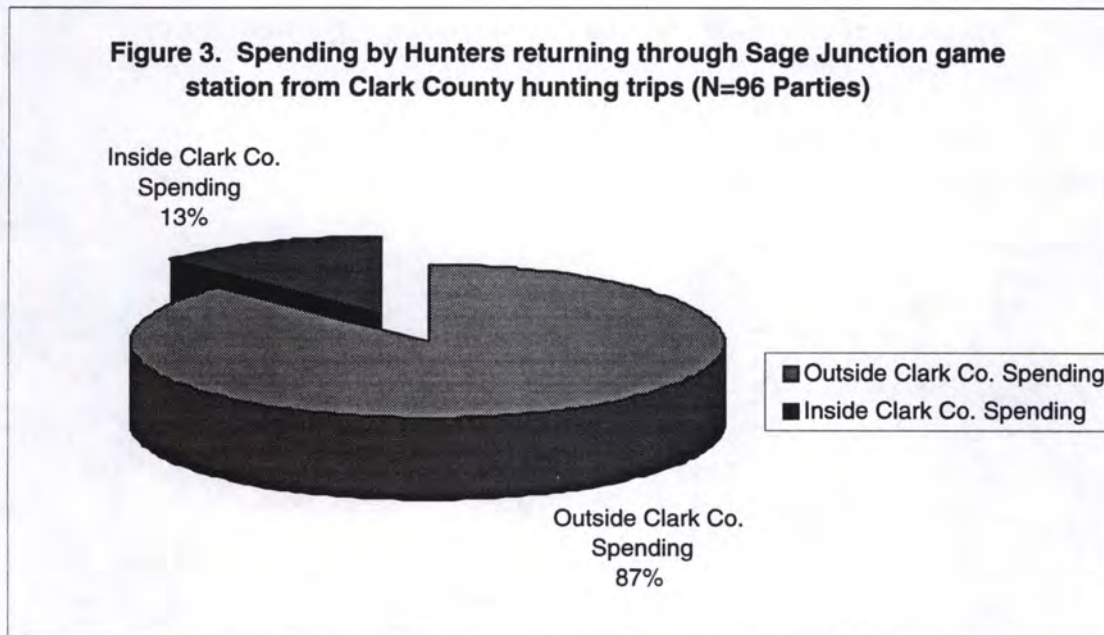
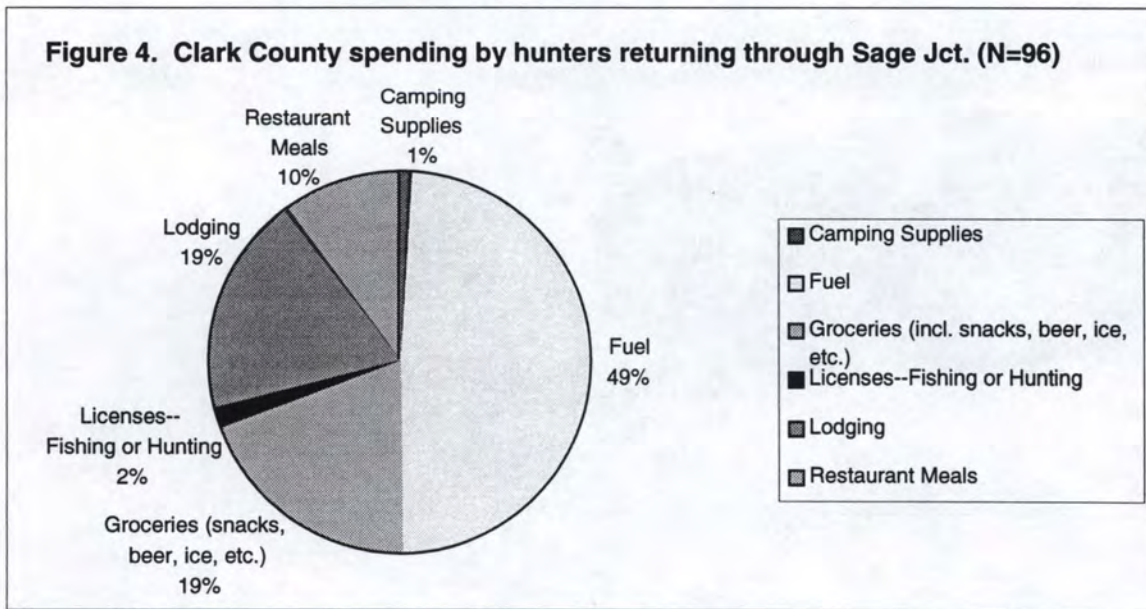


Table 6 below presents the distribution across spending categories for the 13% of the overall spending by hunters interviewed at Sage Junction that occurred inside Clark County.

Table 6. Average Clark County Spending by Hunters Returning through Sage Junction (N=96 Parties).		
Category	Total	Average
Camping Supplies	\$15.00	\$0.16
Fees--Camping (including Donations)	\$4.00	\$0.04
Fuel	\$944.00	\$9.94
Groceries (including snacks, beer, ice, etc.)	\$374.00	\$3.94
Licenses--Fishing or Hunting	\$33.00	\$0.35
Lodging	\$361.00	\$3.80
Other	\$4.95	\$0.05
Restaurant Meals	\$193.49	\$2.04
Supplies/Gear--Fishing or Hunting	\$2.00	\$0.02
Total	\$1,931.47	\$20.33

Figure 4 below illustrates this same distribution across spending categories for the 13% of the overall spending by hunters interviewed at Sage Junction that occurred inside Clark County.



In-camp and in-field interviews

On October 15 after a full day of interviewing/surveying at the check station, we had obtained data from forty hunter parties. A preliminary review of the data revealed a set of patterns that suggested a change in strategy. First, of the first day's respondent parties, just over half (21) had been from Idaho Falls. Second, these Idaho Falls residents had done most of their spending in their home county, Bonneville, and very little in Clark Co. Third, many of these hunting parties indicated that theirs had been day trips to Clark County. These patterns so dominated this first round of data collection, that we decided to forgo a day of check station interviewing in order to seek out possible exceptions. The likely sources of variation from the pattern seemed to be (1) hunters on other than day trips, and (2) hunters whose places of residence were other than points south along Interstate 15. With this in mind and a local guide/volunteer and his four-wheel drive truck, we set out to interview hunters in their camps. Over the next few days, we interviewed/surveyed twenty hunter parties in their camps or in the field during driving tours of the more heavily used game management units in the county. As expected, this yielded findings that were more diverse in terms of where purchases had been made by the parties for their Clark Co. hunting trips.

Findings

Visitor Spending

Table 7 below presents a comparison of average spending per trip by party inside Clark County to outside Clark Co. for hunters interviewed in camps or in the field in Clark Co.

Location	Amount
Outside Clark County Spending	\$197.80
Inside Clark County Spending	\$38.23
Total	\$236.03

The relationship between spending inside Clark County and spending outside Clark Co. by hunters interviewed in camp or field in Clark Co. is illustrated in Figure 5 below.

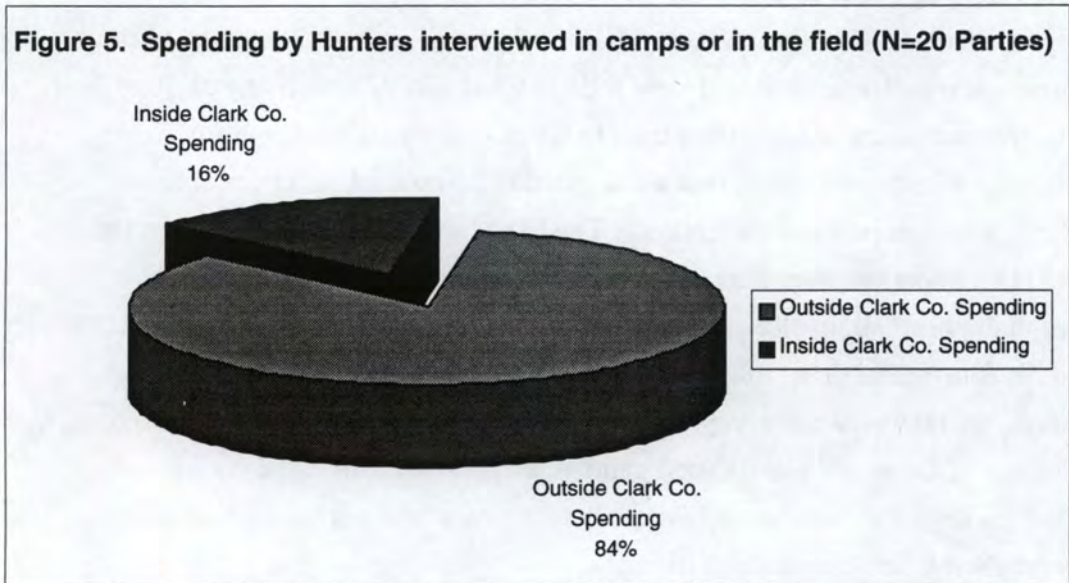
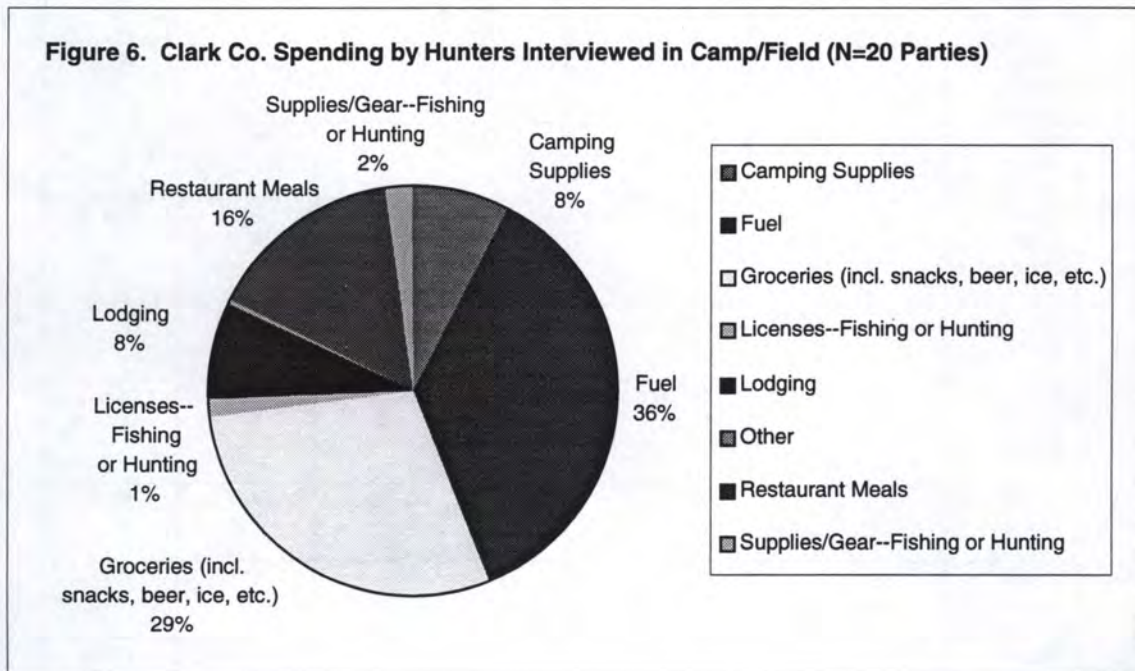


Table 8 below presents the distribution across spending categories for the 16% of the overall spending by hunters interviewed in camp or field that occurred inside Clark County.

Table 8. Clark County Spending by Hunters Interviewed in Camp/Field. (N=20 Parties).		
Category	Total	Average
Camping Supplies	\$59.00	\$2.95
Fuel	\$277.08	\$13.85
Groceries (including snacks, beer, ice, etc.)	\$221.00	\$11.05
Licenses--Fishing or Hunting	\$10.50	\$0.53
Lodging	\$60.00	\$3.00
Other	\$2.00	\$0.10
Restaurant Meals	\$119.00	\$5.95
Supplies/Gear--Fishing or Hunting	\$16.00	\$0.80
Total	\$764.58	\$38.23

Figure 6 below illustrates this same distribution across spending categories for the 16% of the overall spending by hunters interviewed in camp or field that occurred inside Clark County.



Hunters spent more money per trip and more money in Clark County. Day trip hunters spent 13% of their expenditures in county compared to 16% for camper interviewees. The largest proportion of the day hunters' expenditures were used for food followed by groceries and lodging. The camp/field hunters spend a smaller proportion on fuel and greater proportions on groceries and restaurants.

Cost of Services

Table 9 below presents an estimate of the annual costs for several incidents attributable to hunters visiting Clark County that required local services--Law enforcement, Search & Rescue, and Ambulance. The costs per unit (miles, hours, and per trip) were estimated based upon interviews with local officials and service providers (see appendix B). The incidents were identified through a careful review of the county dispatcher's log with the County Sheriff. Only those incidents that could be attributed to hunting visitor use were included in this cost estimate. In Search & Rescue operations which use volunteers, we used \$13.73 per hour of volunteered time to show expense and commitment of locals for visitor recreation.

Table 9. Expense of Local Governmental Units for Hunting Visitors.

Date	Description	Response Type	Personnel	Hrs	Personnel @ \$20.41/hr	Vehicles	Miles	Vehicles @ \$0.33/mil	Totals
LAW ENFORCEMENT CALLS									
09/14/97	Lost Hunter	Sheriff and/or Deputies	2	1.5	\$61.23	2	24	\$15.84	\$77.07
09/23/97	Lost Hunter	Sheriff and/or Deputies	2	5	\$204.10	2	100	\$66.00	\$270.10
10/10/96	Suspicious Person/ Vehicle Incident	Sheriff and/or Deputies	1	0.58	\$11.84	1	27	\$8.91	\$20.75
10/12/96	Criminal Trespass	Sheriff and/or Deputies	1	0.75	\$15.31	1	12	\$3.96	\$19.27
10/15/96	Suspicious Person/ Vehicle Incident	Sheriff and/or Deputies	1	1.5	\$30.62	1	70	\$23.10	\$53.72
10/22/96	Missing--No foul play indicated	Sheriff and/or Deputies	1	3	\$61.23	1	90	\$29.70	\$90.93
10/24/96	Missing--No foul play indicated	Sheriff and/or Deputies	1	2.25	\$45.92	1	30	\$9.90	\$55.82
10/25/96	Citizen requested assistance	Sheriff and/or Deputies	1	1.3	\$26.53	1	60	\$19.80	\$46.33
10/28/96	Suspicious Person/ Vehicle Incident	Sheriff and/or Deputies	1	3	\$61.23	1	90	\$29.70	\$90.93
11/29/96	Stranded motorist	Sheriff and/or Deputies	1	1.5	\$30.62	1	40	\$13.20	\$43.82
	Total Hunting Related Sheriff's calls				\$548.62	1		\$220.11	\$768.73
SEARCH & RESCUE CALLS									
09/14/97	Lost Hunter	Search & Rescue	10	1.5	\$205.95	8	24	\$63.36	\$269.31
09/23/97	Lost Hunter	Search & Rescue	10	5	\$686.05	8	100	\$264.00	\$950.50
	Total Hunting Related Search & Rescue				\$892.45			\$327.36	\$1,219.81
AMBULANCE CALLS									
09/26/97	Deceased hunter--heart attack	Ambulance	3	1.6	\$65.90	1	24	\$266.41	\$332.31
TOTAL					\$1,506.97			\$813.88	\$2,320.85

Snowmobilers--February 1998

Methods

In order to interview snowmobilers, we went to several of the locations identified by our local contacts as places frequently used by snowmobilers as unloading/parking areas and trailheads--the parking lot at Stoddard, Kilgore, and the parking lot of the bar at Spencer. We basically "staked-out" these locations, sitting out of the wind and snow in our own vehicle until snowmobilers arrived to begin their trips. We would then approach them, asking if we could take a couple minutes of their time to ask some questions about their trip. Here again, our goal was to collect data from each party arriving. All of the people we approached agreed to an interview, and we were able to gather data from 20 parties of snowmobiling visitors to Clark County. On the February weekend that we conducted the interviews, the weather was far from optimal, blowing snow and low visibility. The number of snowmobilers was considerably less than what our local contacts had indicated we might expect given clear weather.

At the location that proved most productive in terms of numbers of parties interviewed we found that the snowmobilers arrived in waves of several parties in close succession. After the arrival of such waves, we found ourselves working very hard to get each party interviewed before some began to leave on their snowmobiles. We expect that these waves reflect some coincidence intended time of arrival at the trailhead across several parties.

When we passed the midday mark at the most favorable location and had seen no new arrivals for an hour, we moved to a secondary location. We intended at this spot to interview people as they returned to their vehicles to load up and depart for home. There were only two parties using this next location, and we were able to interview both of them. The rest of our time was spent moving back and forth between the first location and a third location, checking for and interviewing new arrivals and looking for any departing snowmobilers that we might have missed on their arrival.

One aspect of our approach proved to be somewhat awkward both socially and logistically. Our initial approach, walking up to a newly arrived vehicle to ask for an interview, often interrupted potential respondents as they hid behind truck doors changing into their riding clothes. Most people received our tentative approaches in these cases with good humor. However, the awkwardness of approaching potential respondents who are standing with one foot in a boot, the other suspended above the snow, and insulated pants down around their legs, bears consideration as logistical issue for winter recreation study interviewers.

Findings

Visitor Spending

Table 10 below presents a comparison of average spending per trip by party inside Clark County to outside Clark Co. for snowmobilers utilizing public land recreation opportunities in Clark Co.

Table 10. Average Spending (per trip/party) by Snowmobilers. (N=16 Parties).	
Location	Amount
Outside Clark County Spending	\$80.50
Inside Clark County Spending	\$33.88
Total	\$114.38

The relationship between spending inside Clark County and spending outside Clark Co. by visiting snowmobilers is illustrated in Figure 7 below.

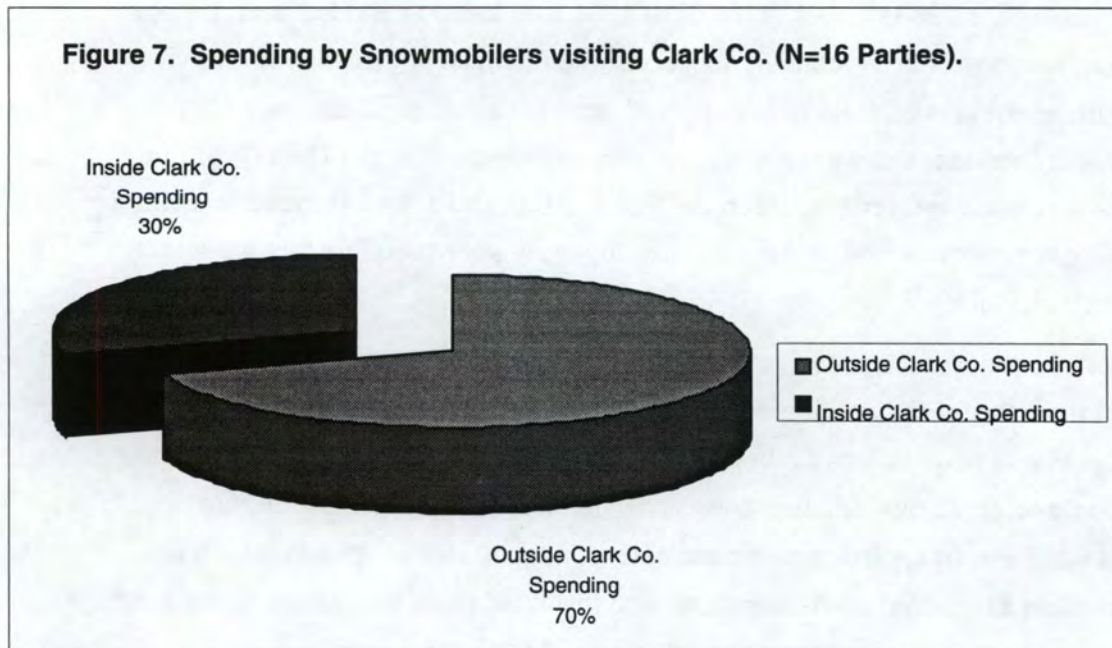


Table 11 below presents the distribution across spending categories for the 30% of the overall snowmobile recreationists' spending that occurred inside Clark County.

Table 11. Clark County Snowmobilers. (N=16 Parties).		
Category	Total	Average
Fuel	\$179.08	\$11.19
Groceries (including snacks, beer, ice, etc.)	\$59.00	\$3.69
Lodging	\$50.00	\$3.13
Restaurant Meals	\$254.00	\$15.88
Total	\$542.00	\$33.88

Figure 8 below illustrates this same distribution of spending across categories for the 30% of the overall snowmobile recreationists' spending that occurred inside Clark County.

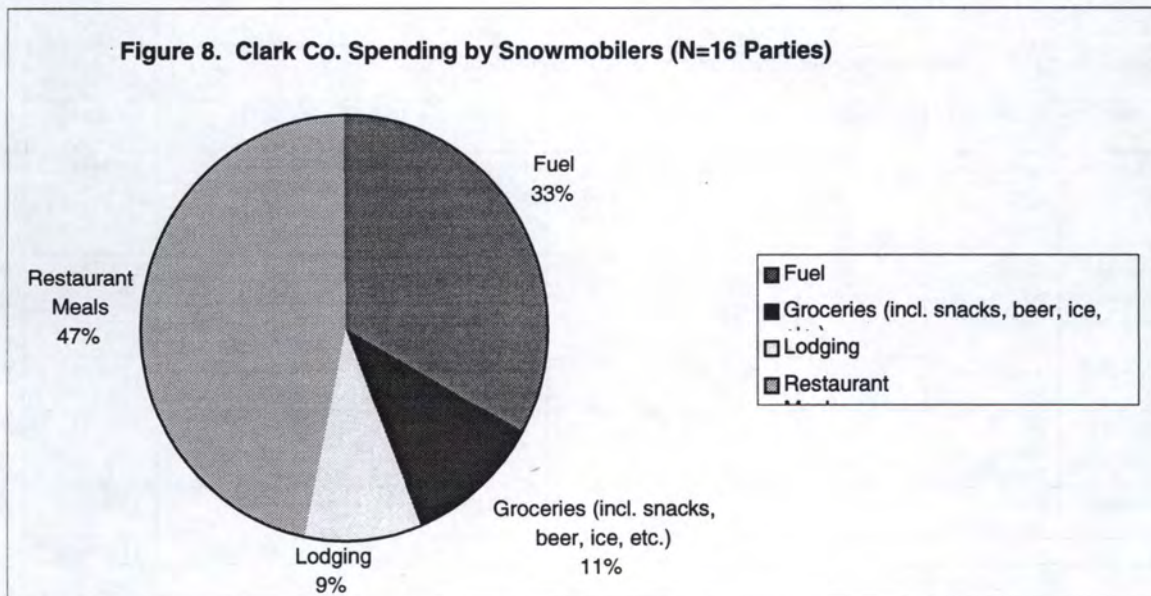


Table 12 below presents the distribution of visiting snowmobiler spending across Clark Co. and nearby counties.

Bingham County	Bonneville County	Clark County	Fremont County	Jefferson County	Other Counties	Total
\$192.00	\$102.00	\$542.00	\$330.00	\$122.00	\$542.00	\$1,830.00

Cost of Services

The section below presents estimates of annual costs for several services provided to visiting snowmobile recreationists in Clark County--law enforcement, Search & Rescue, and snow plowing by the county's Road & Bridge Department. The costs per unit (miles, hours, and per trip) were estimated based upon interviews with local officials and service providers (see appendix B). The ambulance and law enforcement incidents were identified through a careful review of the county dispatcher's log with the County Sheriff. Only those incidents that could be fairly attributed to snowmobiling visitor use were included in this cost estimate. The estimates of time and cost of hourly operation for snow plowing emerged from interviews with the county's Road & Bridge Department's supervisor.

Date	Description	Response Type	Personnel	Hrs	Total	Vehicles	Miles	Total	Incident totals
12/29/96	Snowmobilers staying with Clark Co. relatives	Ambulance	3	3	\$123.57	1	112	\$266.41	\$389.98
12/29/96	Snowmobilers staying with Clark Co. relatives	Sheriff and/or Deputies	2	1.5	\$61.23	2	24	\$15.84	\$77.07
02/05/97	Snowmobiler injury	Ambulance	3	3	\$123.57	1	150	\$266.41	\$389.98
02/06/97	Snowmobiler injury	Sheriff and/or Deputies	2	2	\$81.64	2	60	\$39.60	\$121.24
02/06/97	Snowmobiler injury	By snowmobile	2	2	\$81.64	2	30	\$19.80	\$101.44
	Totals				\$471.65			\$608.06	\$1,079.71

Snow-plowing (Costs attributable to snowmobiling):

Approximate hourly cost to operate county motor-grader for snow-plowing:: \$48.66/hour
(Rental would cost \$50-\$75/hour; Contractor's estimate--\$42.00/hr.)

Approximately 1 "rescue" trip per year, plowing, to Kilgore to free recreationists trapped by blown snow—at 6-8 hours/trip.

$$(1 \text{ trip/yr.}) \times (7 \text{ hrs./trip}) \times (\$48.66/\text{hr.}) = \$340.62 \qquad \qquad \qquad \mathbf{\$340.62/\text{year}}$$

Approximately 1 extra hour per week for 20 wks. (early November to early April) to plow out parking areas for snowmobilers to prevent them from simply blocking the road.

$$(1 \text{ hr./wk.}) \times (20 \text{ wks./yr.}) \times (\$48.66/\text{hr.}) = \$973.20 \qquad \qquad \qquad \mathbf{\$973.20/\text{year}}$$

Total snowplowing costs attributable to snowmobiler traffic in Clark Co.

Approx. $\qquad \qquad \qquad \mathbf{\$1,313.82/\text{year}}$

Analysis:

Clark County's economy has been based on the traditional uses of the public lands: grazing, mining, timber harvest and recreation. As the national societal values have changed, society's permitted uses of public land has also changed. The currently favored uses demand and expect different things from the local economy. At the same time the previous uses are being reduced or terminated. As a result the traditional local support industries are also weakened and being phased out. The replacement economic activity being recommended relates to serving visitors. This analysis is to evaluate the economic contribution of three types of visitors to Clark County, to estimate the revenue and sales which the different mix of users contribute the local economy and estimate what the net economic position of the county is as a result of visitors. Three types of visitor economic effects are analyzed. They are campers, big game hunters and snowmobilers.

Local government is a major provider of services in Clark County. The sources of revenue to pay for these services include property taxes, excise taxes, direct fees and shared revenues for state and local governments. Therefore direct economic activity only indirectly benefits local government because of local property taxes and state revenue sharing schemes.

Camper/fishing:

The revenue from persons camping in the Birch Creek area of Clark County is focused on the general store in that part of the county. Only 3% (\$2.33) of the \$91.84 for the trip were expended in Clark county. Expenses for servicing the campground were also minimal. There were no extra solid waste costs. Law enforcement made one extra trip (\$67.22). The ambulance service made 2 runs in 1997 and collection was adequate to cover the costs. In

summary, Birch Creek visitors contributed very little to the county and cost the county very little.

Big Game Hunters

Big game hunters were of two types: day hunters and camper hunters. The majority of the day hunters were from Bonneville County (Idaho Falls) while the camper hunters were from a slightly more dispersed area. The day hunters spent an average of \$159.72 of which 13% (\$20.12) was spent in the county. Almost half of what the day hunters spent in Clark County was for fuel (49%). The other two important categories for spending in Clark County were groceries (19%) and lodging (19%).

Camper hunters had a different spending pattern. They spent on the average \$236 for the trip. Sixteen percent (\$38.23) was spent in the county. Multi-day hunters spent 90% more in the county than day hunters. Their spending pattern was also quite different. Thirty six percent was spent on fuel while 29% was spent on groceries and 16% on restaurants. Eight percent was spent on camping supplies and lodging. The camper hunters spent more per trip and more on things with a higher component of local resources. Having people stay longer provides more economic activity for the local economy.

These visitors demanded more services from local government. The principal services demanded were personal assistance such as stranded drivers, lost persons and ambulance service. Ambulance service is the only service provided which is currently billed.

Snowmobilers:

Snowmobilers spent the largest proportion of their visitor dollar in Clark County. They spent \$114.38 for the visit. Thirty percent of that expenditure was in the Clark County (\$33.88). The largest proportion of their local purchases were for restaurant meals (47%). The second largest expenditure was for fuel (33%). Overall snowmobilers 56% of their in-county purchases for restaurant and lodging purchases. Both categories which have a high proportion of local resources.

Costs to local government for providing services to snowmobilers included ambulance, and Sheriff office services. An additional cost to the county was the plowing of parking lots to unload snowmobiles.

Local spending is important because it generates economic activity. Also of importance is the local component of what is purchased in the county. Table 14 (column 2) shows the margin for items purchased and the income which could be expected to remain local. Based on

the local margin rates of Robert Morse Associates, the proportion retained locally as the result of camper, hunter and snowmobile visitor expenditures are respectively \$1.20, \$9.34, \$17.09 and \$22.58. These numbers are what would be expected to remain in the local merchants' hands for use in paying property and income taxes. Property taxes remain local to support local services. Income taxes are paid on purchase also go to the state general fund.¹ Table 14 summarizes the additional costs to various governmental units of Clark County to provide services for public land visitors.

Summary:

Changing from a commodity based economy using resource from public lands to a recreation based economy induced changes in the Clark County economy. The previous economic activity required year around services from local providers to conduct business. The new wave of public land use for recreation has shifted the majority of the economic activity for the three activities analyzed here to the location of residence. In Idaho that means the more urban areas such as Bonneville County. The demands from local government in the destination area are seasonal and considerable less labor intensive. The question "Is recreation a net loss or gain to the local county remains to be answered. The answer to that question is the final analysis for completion of this project.

REFERENCES:

- Snyder, Donald L., Christopher Fawson, E. Bruce Godfrey, John E. Keith, and Robert J. Lillieholm, WILDERNESS DESIGNATION in UTAH: ISSUES and POTENTIAL ECONOMIC IMPACTS, Research Report 151, Utah Agricultural Experiment Station, Utah State University, Logan, Utah, 84322-4810, January 1995.
- Fletcher, Robert R., George W. Borden, Thomas R. Harris, David Taylor, and Brett Moline, "Comparison of Economic Impacts from Public Land Based Tourism and Grazing: A Case Study" ,Presentation at the Society of Range Management Annual Meeting, Rapid City South Dakota, February 18, 1997.

¹ State redistribution formulas are beyond the scope of this paper.

Table 14. Marginalized Local Spending of Recreators in Clark County.

Local Purchase	Local Margin ^{1/}	Birch Creek Campers		Check Station Hunters		Camping Hunters		Snowmobilers	
		Spending (\$)	Local portion (\$)	Spending (\$)	Local portion (\$)	Spending (\$)	Local portion (\$)	Spending (\$)	Local portion (\$)
Camping Supplies	35%	—	—	.16	.06	2.95	1.06	—	—
Camping Fees	0%	.13	—	.04	—	—	—	—	—
Fuel	20%	.59	.12	9.94	1.99	13.85	2.77	11.19	2.24
Groceries	36%	.50	.18	3.94	1.42	11.05	3.98	3.69	1.33
Licenses ^{2/}	—	—	—	.35	—	.53	—	—	—
Lodging	100%	—	—	3.80	3.80	3.00	3.00	3.13	3.13
Meals	100%	.78	.78	2.04	.02	5.95	5.95	15.88	15.88
Gear & Supplies	36%	.32	.12	.02	2.04	.80	.29	—	—
Other	36%	.02	—	.05	.01	.10	.04	—	—
Totals		2.33	1.20	20.33	9.34	38.23	17.09	33.88	22.58

^{1/}Annual Statement Studies, Robert Morse Associates, Philadelphia, PA, 1993.

^{2/}Idaho Fish and Game pays 75¢ per item sold to the local sales outlet.

Table 15. Extra Annual Costs to Clark County Governments

Campers at Birch Creek

Law enforcement	\$67.22	
Solid waste handling		
Ambulance	<u>370.35</u>	
Subtotal	\$437.57	

Big Game Hunters

Law enforcement	\$768.73	
Search and rescue calls	1,219.81	
Ambulance calls	<u>332.31</u>	
Subtotal	\$2,320.85	

Snowmobilers

Law enforcement	\$198.31	
Ambulance calls	881.40	
Snow plowing of parking lot and rescue trip	<u>1,313.82</u>	
Subtotal	\$2,393.53	
Total		<u>\$5,151.95</u>

Appendices

Appendix A--Interview Guide

I'm working with the University of Idaho and the Clark County Commissioners to estimate the economic impact of recreation in Clark County. Is it all right for me to ask you a few questions about your trip? It will take about 3-5 minutes.

[Questions for Hunters—answers to some may be obvious by observation and question may not need to be asked:]

1. What game unit(s) were (are) you hunting in? (58, 59, 59A, 60, 60A, 61) _____
2. What animal were (are) you hunting for? (Elk, Deer, other) _____
3. Did you get one? (Successful or not?) _____
4. Did you hire a guide? _____
5. What town do you live in? _____ 6. What is the Zip Code there? _____
7. Is this the first time you've come to (or gone to) Clark County for recreation this year? Yes No
 How many times this year? _____ At what times of the year? _____
8. What things do you come here to (or go to) _____
 Clark County to do? _____
 Camping Off-Road Vehicles Other
 Fishing Hunting
9. In order to understand the economic impact of outdoor recreation on Clark County, we need to find out what you purchased for the trip, where you bought it, and about how much money you spent. Is that OK?

What did you buy for this trip?	Where did you buy it?	About how much did you spend?
Gasoline (Rig, ORV, Generator, etc.)		
Food (Groceries, snacks, beer, ice, etc.)		
Licenses/Tags (Fishing, Hunting)		
Camping Supplies (Equipment, etc.)		
Hunting Supplies (Ammunition, etc.)		
Restaurant Meals		
Camping Fees		
RV Dump Fees		
Vehicle Service		
Other: (Guide services, etc?)		

10. If you need(ed) to re-supply before you returned home, where will (would) you go? _____

That's all we need. Thank you very much for your time.

Appendix B--Derivation of Costs

Law Enforcement

Derivation of avg. hourly personnel cost for Clark Co. Law enforcement.

Cost/hour law enforcement personnel	
Salary 1	\$24,810.00
Salary 2	\$34,461.00
Salary 3	\$37,178.00
Avg. Law enforcement salary	\$32,149.67
(County pays benefits at:)	
Social Security 7.61%	\$2,446.59
Persi 10.01%	\$3,218.18
Workman's Comp 3.32%	\$1,067.37
Health insurance \$230.00/mo.	\$2,760.00
Total Benefits	\$9,492.14
Avg. Annual Cost to County	\$41,641.81
Avg. Cost per hour (2040 hrs/yr.)	\$20.41
Omits liability insurance which county pays as lump sum for all employees	

Derivation of average per mile cost of operating Clark Co. Law Enforcement vehicles.

Derivation of per mile costs for Law Enforcement and Search and Rescue			
	Dollars	Miles	Cost per mile
Annual Maintenance costs per vehicle	\$2,500.00	25000	\$0.10
Fuel consumption (@ 16mpg)	\$1.10	16	\$0.07
Depreciation per vehicle	\$4,000.00	25000	\$0.16
Total cost per mile for vehicle			\$0.33

Ambulance(s)

Clark Co. Ambulance	Annual for Service that conducted 81	Avg per Run	Category	Billed Amt.
Salaries	\$1,800.00	\$22.22		
Benefits	\$298.18	\$3.68		
Supplies	\$3,443.41	\$42.51		
Utilities	\$302.11	\$3.73		
Fuel	\$1,300.34	\$16.05		
Repairs	\$126.90	\$1.57	Call Out	\$350.00
Miscellaneous	\$2,021.86	\$24.96	(\$3.00/loaded mi.x135.8mi.)	\$407.40
Education	\$2,286.33	\$28.23	Avg. supplies/run	\$150.00
Vehicle (Depreciation/ Replacement Cost)	\$10,000.00	\$123.46	Approx. avg. bill	\$907.40
			Collection Rate	
Total	\$21,579.13	\$266.41	8%	\$417.61

Mud Lake Ambulance est. Costs			Billed Amts.	
Categories	Annual	Per run	Category	Billed
EMT Stipends		\$105.00		
Fuel--Ambulance (11mpg.x200mi.x\$1.30)		\$23.66		
Fuel--Suburban (8mpg.x60mi.x\$1.30)		\$9.75		
Supplies		\$50.00		
Utilities*	\$302.11	\$3.73		
Repairs*	\$126.90	\$1.57	Call Out	\$350.00
Miscellaneous*	\$2,021.86	\$24.96	(\$3.00/loaded mi.x200mi.)	\$600.00
Education*	\$2,286.33	\$28.23	Avg. supplies/run	\$150.00
Vehicle (Depreciation/ Replacement Cost)*	\$10,000.00	\$123.46	Approx. avg. bill	\$1,100.00
Total		\$370.35	Collection Rate 60%	\$660.00
* assumed from Clark Co. Costs				

Mileage for Avg. Run	
Avg. fuel cost per run	\$16.05
Cost per gallon est.	\$1.30
Gallons	12.35
Miles (@ 11mpg est.)	135.81

