A Research Paper by

HEADWATERS ECONOMICS

The Economic Value of Public Lands in Grand County, Utah

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ABOUT HEADWATERS ECONOMICS

Headwaters Economics is an independent, nonprofit research group whose mission is to improve community development and land management decisions in the West.

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Cover Photo: Whit Richardson

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I. Introduction

Grand County in southern Utah is made up largely of public lands—87 percent of the county is a mix of state and federal lands managed by different agencies for a range of users and purposes. Management of these extensive lands is important to local businesses and elected officials because of the close tie between public lands resources and the well-being of the local economy.

Recently, interested stakeholders, businesses, and elected officials created an informal steering committee to explore the economic and fiscal significance of public lands in Grand County. The steering committee includes diverse interests, including representatives from Trail Mix, Ride with Respect, Red Rock Four Wheelers, Moab Lodging Association, Moab Trail Alliance, Moab Chamber of Commerce, and county government.

This group proposed to the Grand County Council a study on the economic and fiscal role of public lands in the county that could be the basis for ongoing and informed discussions about how to develop, protect, and manage nearby public lands so that they benefit businesses, the county, and diverse users into the future. In 2010, the Grand County Council unanimously adopted a resolution supporting such a study.[1]

Members of the steering committee contacted Headwaters Economics to help research and write the study. Headwaters Economics is a non-profit economics research group that works regularly with public land management agencies and has specialized expertise in rural economic development.[2]

The local steering committee met with Headwaters Economics on several occasions to discuss the study's scope and purpose, and to ensure that the best available information and data was considered. As a result of these conversations, it was agreed that the study would look at a range of public lands values but focus on recreation, because this type of use is large, complex, and the least well understood activity on public lands in the county.

The steering committee hopes that this report clarifies how public lands support county businesses and generate important tax revenue, while assisting interested parties to participate constructively in planning for the future of these lands.

This report begins by reviewing the characteristics of public lands in Grand County. It then gives an overview of recent economic history and in particular the transition from mining to recreation that began in the 1980s. The report goes on to examine the scale of various uses on public lands, the economic contribution of recreation activities specifically, and how public lands attract people and business. Finally, the report explores the fiscal contribution of public lands to local governments in the county. There also is a concluding discussion section, and appendices with details on data and analysis covered in this report.

II. Methods

Variety of Sources: This report draws on published statistics from a wide variety of sources, including the State of Utah, Bureau of Land Management (BLM), National Park Service (NPS), U.S. Forest Service, U.S. Department of Commerce, and others. We also made use of the Economic Profile System-Human Dimensions Toolkit, which we developed in partnership with the BLM and Forest Service and is available for free at: http://headwaterseconomics.org/tools/eps-hdt. It was beyond the scope of this study to obtain direct information, through surveys for example, of visitor expenditures. However, we were able to use data compiled by Michigan State University and based on the Money Generation Model (MGM2) to describe the economic impacts of visitation to area National Parks (see Appendix A for more details). We also obtained the results of a survey of visitors to BLM lands, and we analyzed those using the IMPLAN software (see Appendix B for methods and detailed results).

Survey Limitation: The National Visitor Use Monitoring Survey (NVUM) used in this report was a U.S. Forest Service pilot study applied to BLM lands. Though every effort was made to capture the widest range of public lands users and activities, the timing and location of surveys and their voluntary nature mean that it is possible certain users and types of activities may be over/under sampled.

No Single Indicator Tells the Story: There is no single measure that documents the economic value of public lands in Grand County. Rather, a number of indicators, when taken together, provide a better understanding of long-term patterns and the relative magnitude of recreation and other uses of public lands and their impacts on the county.

Sometimes Geographies Are Mixed: For some sources, such as a survey of visitors to BLM lands, the findings pertain to the Moab Field Office and are therefore primarily related to Grand County. Visitation to Arches and Canyonlands National Parks, and their resulting job impacts, refer largely to Grand County but also include San Juan County. Records of visitation to the Manti-La Sal National Forest are the least localized because they cover the entire national forest, which is spread across southern Utah. For this reason, we point out the percent of the land base by ownership (National Parks Service, State of Utah, BLM, Forest Service, etc.) in the county.

Context Is Important: Where possible, we place the number of jobs associated with a particular type of public land use in the context of the broader economy. The same is true for other indicators, such as sources of revenue for local governments.

Sometimes Time Periods Are Mixed: Where possible, we report long-term trends related to uses of public lands. However, depending on the source of the data, different time periods had to be used. Whenever we compare the impact of a particular type of use at a particular time (e.g., National Park Service-related jobs in 2009), we set them in the context of the larger economy for the same time (e.g., total number of jobs in 2009).

Travel and Tourism: This heterogeneous sector is notoriously difficult to measure. One way we gauge this sector is to calculate the total number of jobs in businesses associated with travel and tourism, such as hotels and restaurants.[3] We also use other statistics, such as tourism-related tax revenues, to understand the magnitude of recreation on public lands in the county.

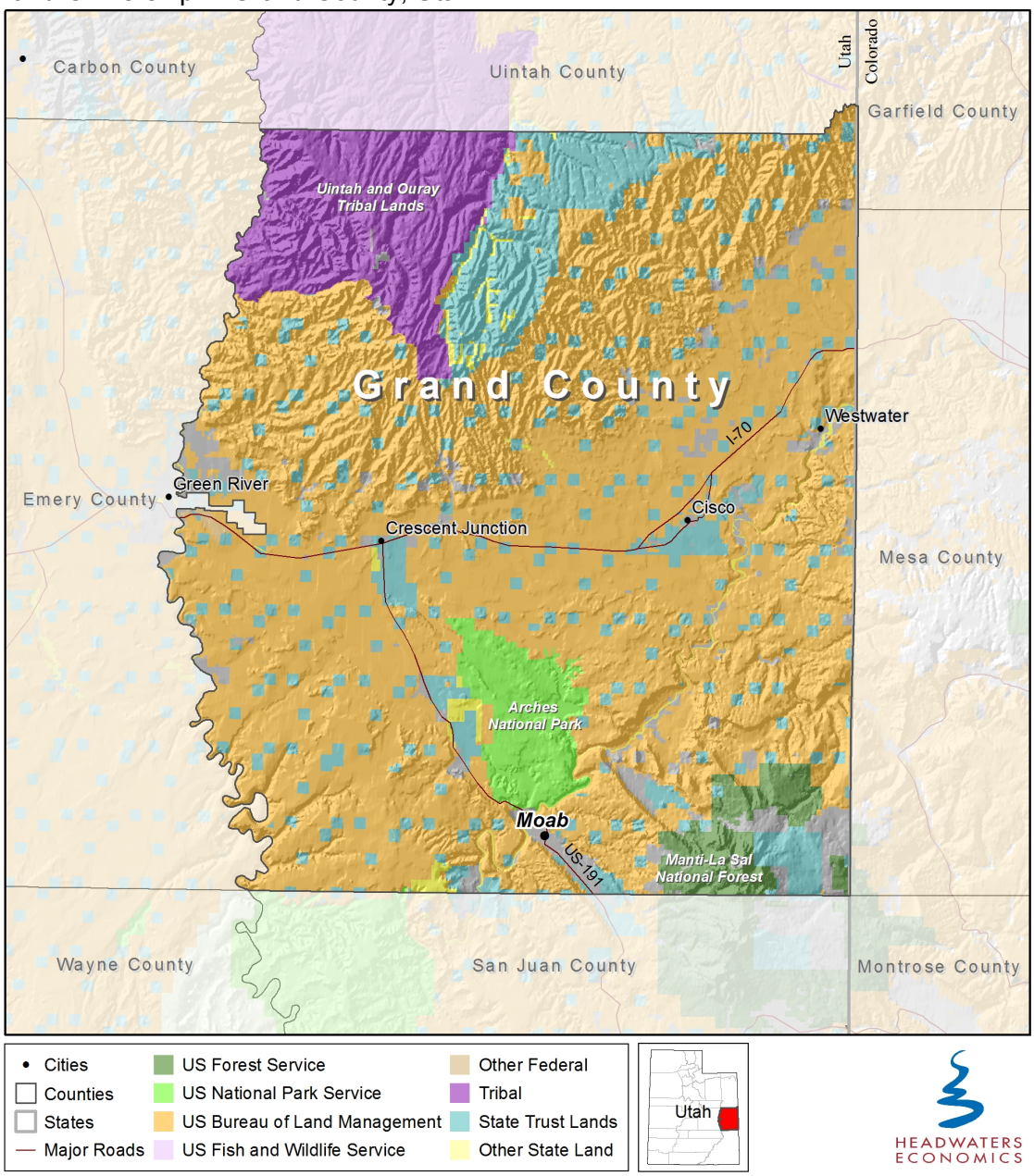
Caveat: We do not calculate the number of jobs associated with visitation to different types of public lands as a percent of total jobs in the county. The reason is that many tourists visit both NPS and BLM lands on the same trip. As a result, their numbers cannot be totaled and compared to total county employment because this would risk double counting.

III. Land & Economy

Land

Grand County lies in one of the most picturesque landscapes in America. The land is a mosaic of terrain and ownership, and is traversed by the Colorado River. The county is bounded to the north by Uintah County, including part of the Uintah and Ouray Indian Reservation, with Colorado to the east, San Juan County and Canyonlands National Park to the south, and Emery County and the Green River to the west.

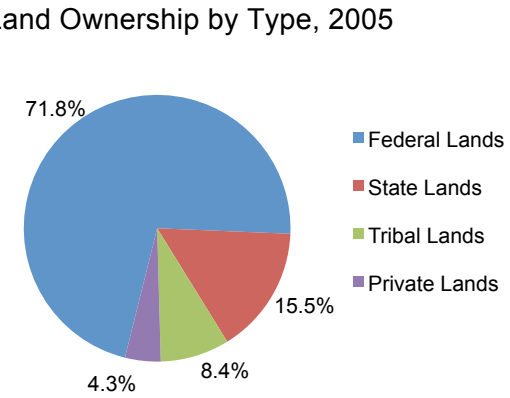
Land Ownership in Grand County, Utah



Land Ownership

Grand County covers 3,678 square miles. Eighty-seven percent of the land is publically owned, and is managed by state and federal agencies. Tribal and private lands cover 8.4 percent and 4.3 percent, respectively, of the land area in the county.[4]

The BLM is the largest land manager in the county, holding 1,553,670 acres (66% of total). Other federal ownership includes the NPS at 76,600 acres (3.3% of total), and the Forest Service at 57,211 acres (2.4% of total). State lands (365,342 acres, 15.5% of total) consist mainly of school and institutional trust lands, state parks, wildlife reserves, and recreational areas. A portion of the Uintah and Ouray Indian Reservation, managed by the Ute tribe, extends into the northwest portion of the county.[5]



Source: U.S. Department of Agriculture. 2005. Natural Resources Conservation Service. Grand County, Utah Resource Assessment.

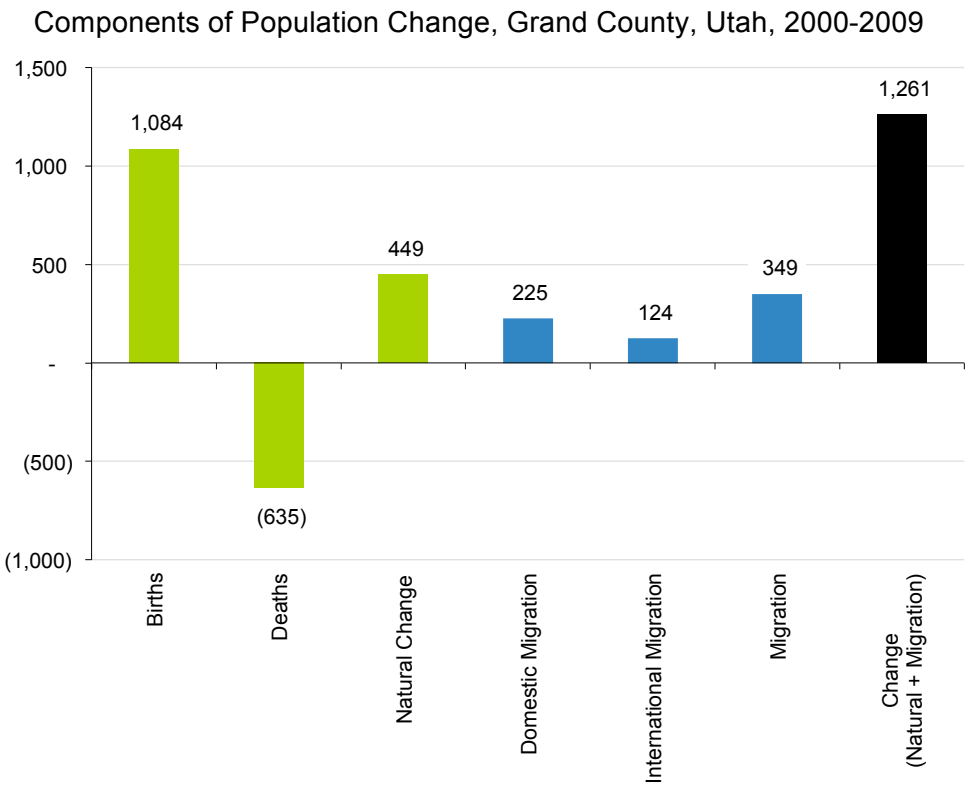
Land Use Diversity

Grand County's public lands support a multitude of land uses that include mining, agriculture, and recreation. Mining includes the extraction of minerals like potash, and fossil fuels such as oil and natural gas. Agriculture consists largely of grazing. Recreational uses include sightseeing and nature viewing, mountain biking, hiking, rock climbing, camping, horseback riding, motorized recreation (ATV, UTV, motorcycle trail riding, and jeeping), exploring paleontological and cultural resources, and river floating. In many cases visitors participate in a mix of these outdoor activities.

There are a number of highly visible areas and scenic highways in or near the county. These include Black Ridge Canyons Wilderness, McInnis Canyons National Conservation Area, Arches National Park, Canyonlands National Park, Manti La-Sal National Forest, and Dead Horse State Park. Additionally, several scenic byways, including the Upper Colorado River Scenic Byway, the Potash-Lower Colorado Scenic Byway, and the Dead Horse Mesa Scenic Byway, provide additional attractions.

People

In 2009, Grand County's population was approximately 9,407 people. The majority (54%) live in Moab, and the rest inhabit smaller towns and unincorporated areas.[6] The population grew between 2000 and 2009, increasing by 1,261 people or 15 percent. Population growth was driven by both natural gains (births minus deaths) and in-migration (mainly domestic). Net in-migration, which accounted for 28 percent of population growth in the last decade, is a healthy sign, indicating people are moving to the region because of the quality of life, a job opportunity, or some other reason.[7]



Source: U.S. Department of Commerce. 2010. Census Bureau, Population Division.

Grand County is predominantly white (92%), with the largest minority, American Indians primarily from the Navajo tribe, making up 5.2 percent of the population. The population clusters around the 25-to-54 age group, which makes up 41 percent of total county population.[8]

Of the approximately 4,547 housing units in the county, the Census Bureau classifies 900 as "vacant"—that is, they are not the usual place of residence of the person or group living there. Of these "vacant" homes, 507—11 percent of all housing—are used for "seasonal, recreational, or occasional use."[9] These homes are likely second homes for people whose primary residence is elsewhere but want a house to live in when they come to the Moab area to recreate.

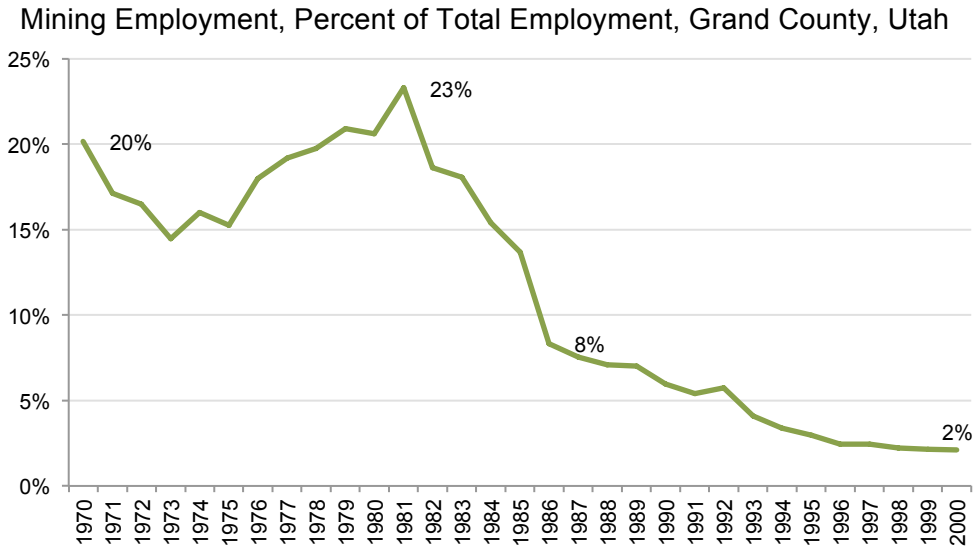
Economy

Historical Economic Trends

Native peoples inhabited what is now Grand County for thousands of years before Mormon missionaries attempted to settle the area in the middle 19th century. Trappers, prospectors, and cattlemen then sporadically occupied the region before Mormon pioneers permanently settled the "Spanish Valley" in 1877. Farming and ranching expanded to include more significant mining and a new railroad in the 1890s.[10]

The discovery of uranium in 1952 changed everything. Mining quickly became the primary industry in the area and led to a population explosion as the demand for uranium spiked in the post-World War II era. In operation since 1956, Atlas Mill (originally Uranium Reduction Company) put its operations on standby in 1984 due to low uranium prices. The mill was officially closed in 1988.[11]

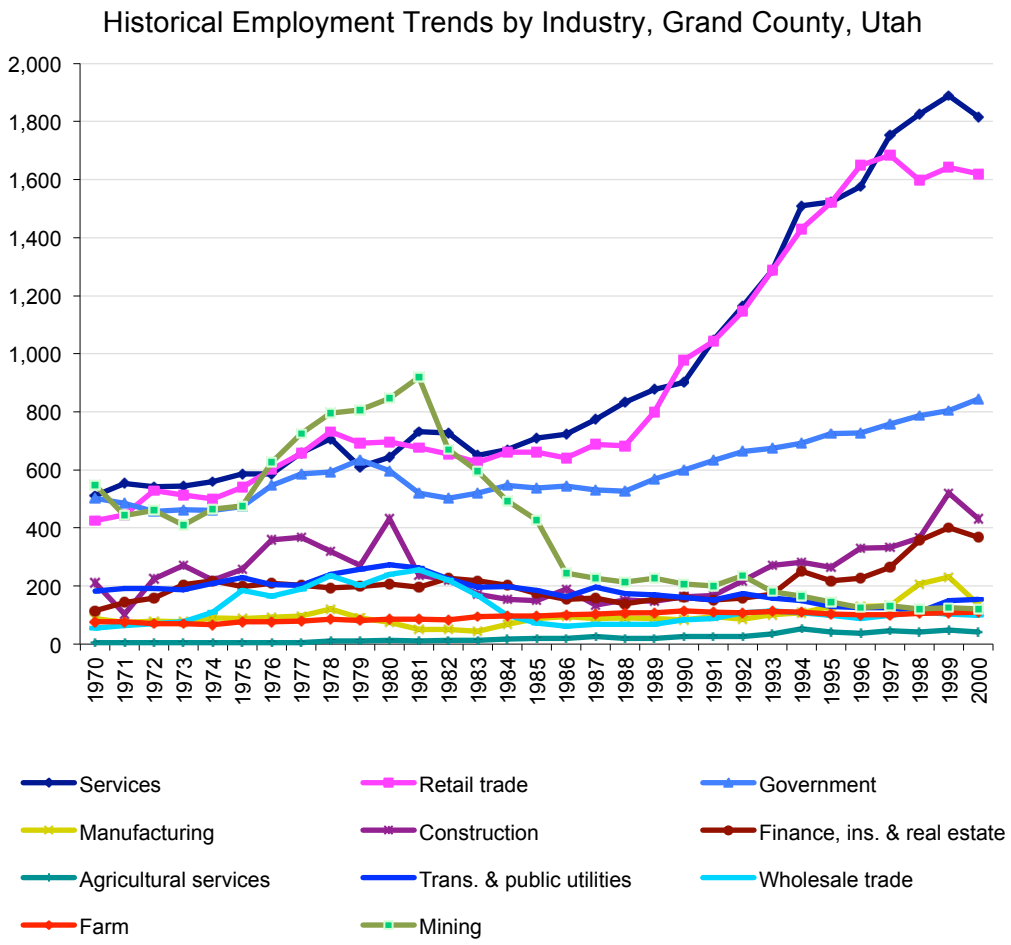
This boom-bust experience can be readily seen in the published economic data. From 1981 to 1986, the peak decline years, mining jobs fell from 23 percent to 8 percent of total employment in the county. This contraction reverberated through the entire economy. In the same years, overall employment in Grand County fell from 3,947 to 2,934 jobs, a 35 percent decline. Continuing shifts in the economy left mining a small player—2 percent of total employment—in the county by 2000. [12]



Source: U.S. Department of Commerce. 2011. Bureau of Economic Analysis, Regional Economic Information System.

Grand County did not have to wait long for an alternative economic future. Beginning in the late 1980s and early 1990s, Moab became recognized as an outdoor mecca due to its temperate climate, beautiful scenery, and robust variety of outdoor activities, largely on public lands. Even as mining continued its decline, the county entered its next boom: recreation. The economy took off again.

From 1990 to 2000, employment grew by 65 percent, mainly in a range of services and retail trade that together added 1,555 new jobs. By 2000 these two sectors accounted for 60 percent of all jobs in the county.[13] There was a minor economic hiccup at the turn of the century, possibly fallout from a strong U.S. dollar on international visits. This short-lived downturn was a reminder of the dangers of narrow industry dependence, and also of the continual need to enhance the area's competitive strength in tourism and outdoor recreation.



Source: U.S. Department of Commerce. 2011. Bureau of Economic Analysis, Regional Economic Information System.

Recent Economic Activity [14]

Looking at the period from 2001 to 2009 (latest available data), it is apparent that the economic growth rate slowed from the previous decade—from seven percent annual job growth in the 1990s to two percent annual job growth in the 2000s. This may be partly because of the effects of national recessions in 2001 and from 2007 to 2009. It is also evident that a mix of service-related industries continued to drive economic growth, creating new jobs and personal income in Grand County. The fastest growing sectors from 2001 to 2009 were real estate and renting (193 new jobs), accommodation and food services (144 new jobs), and retail trade (133 new jobs).[15]

In 2009, service-related industries also represented the bulk of Grand County's economy, making up 70 percent of total jobs. Accommodation and food services (21.8% of total jobs) and retail trade (13.6% of total jobs) remained the dominant sectors. Government (14% of total jobs), real estate and rental and leasing (6.7% of total jobs) and construction (6.7% of total jobs) were also significant sectors. Mining remained steady as a share of the overall economy at an estimated 2.0 percent of total employment. [16]

As the economy in Grand County has evolved in the last decade, earnings per job stabilized ($27,866 per year in 2009), and per capita income rose, in real terms, from $26,420 in 2000 to $30,333 in 2009. The rise in per capita income is due in large part to the significant increase in non–labor income in the county—it has been the fastest growing source of new personal income (+52% since 2000) and represented 47 cents of every dollar in personal income in 2009.[17]

Non-labor income is a mix of money earned from investments (dividends, interest, and rent) and government transfer payments to individuals, which is largely retirement-related (such as "retirement and disability insurance benefits"). The recreation-oriented economy in Grand County, like other similar economies around the West, has successfully attracted this form of wealth, which in turn has increased overall prosperity and added stability to the local economy.

However, Grand County continues to struggle with recessions. The last recession (December 2007 to June 2009) hit many smaller economies with tremendous force, especially those that had grown rapidly in the previous decade. In this downturn, the annualized unemployment rate in the county rose from 4.9 percent in 2007 to 10.8 percent in 2010.[18]

Percent Total Employment by Sector, 2009

	Grand County, UT
Non-Services Related	*11.5%*
Farm	1.5%
Forestry, fishing, & related activities	na
Mining (including fossil fuels)	*2.0%*
Construction	6.7%
Manufacturing	1.3%
Services Related	*69.8%*
Utilities	0.6%
Wholesale trade	1.2%
Retail trade	13.6%
Transportation & warehousing	1.5%
Information	1.1%
Finance & insurance	2.0%
Real estate, rental, and leasing	6.7%
Professional & technical services	4.2%
Management of companies & enterprises	na
Administrative & waste services	na
Educational services	1.6%
Health care and social assistance	5.4%
Arts, entertainment, & recreation	5.7%
Accommodation & food services	21.8%
Other services, except public admin.	4.2%
Government	14.0%

Source: U.S. Department of Commerce. 2011. Bureau of Economic Analysis, Regional Economic Information System. Note: "na" indicates that employment data is withheld to avoid disclosing the operations of individual companies. Estimates are in *italics*.

The county's approach to economic development today is to "diversify its economy by targeting light manufacturing, tourism and recreation, the fine arts, educational programs, television and motion picture production, agriculture, and the development of natural resources."[19]

Economic diversification can increase resilience. One of the unusual aspects of Grand County is the wide range of recreational opportunities and activities it supports. In effect, the county's economic diversity lies *within* its amenity and recreation economy. As a result, finding ways to sustain and develop tourism and recreational diversity becomes more important to local economic resilience and long-term well being than elsewhere in the West.

IV. The Economic Value of Public Lands

This section turns to understanding the economic role of public lands in Grand County. These lands provide a wide range of economic values, some of which are easier to measure while others are more difficult to quantify.

On the more measurable side of the spectrum—and explored in this report—are the value of natural resources that can be extracted such as minerals, fossil fuels, and timber; agriculture including forage for grazing; recreational activities for tourists and locals; and the quality of life afforded by the presence of public lands that attracts people and businesses to adjacent communities.

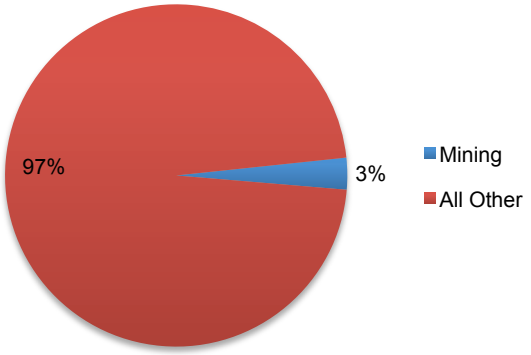
More difficult to measure—and as a result not explored in this report—are the value of ecosystems services such as clean water, climate regulation, and soil formation and nutrient cycling; non-market benefits that include "existence value" (people value the existence of these lands, even if they may never use them) and "bequest value" (the value of passing lands onto the next generation); scientific information on plant and animal species; and cultural values, ranging from the traditional family camping trip to the preservation of important cultural sites such as Native American sacred sites.

While it is beyond the scope of this study to find a numerical value for all of these values, we report below on values where it was possible to obtain reliable information.

Public Lands Resource Extraction and Grazing

The natural resource and extraction component of the Grand County economy is relatively small.

Employment in Mining, Share of Total and Details, 2009



	Grand County, UT
Total Private Employment	3,378
Mining	101
Oil & Gas Extraction	*55*
Oil & Gas Extraction	*39*
Drilling Oil & Gas Wells	*2*
Support for Oil & Gas Operations	*14*
Coal Mining	0
Coal Mining	0
Support Activities for Coal Mining	0
Metal Ore Mining	*21*
Metal Ore Mining	*1*
Support Activities for Metal Mining	*20*
Nonmetallic Minerals Mining	*33*
Nonmetallic Minerals Mining	*2*
Support for Nonmetal Minerals	*31*
Mining Related	0
Oil & Gas Pipeline & Related Const.	0
Pipeline Transportation	0
Non-Mining	3,277

Source: U.S. Department of Commerce. 2011. Census Bureau, County Business Patterns. This table does not include employment data for government, agriculture, railroads, or the self-employed because these are not reported by County Business Patterns. Estimates for data that were not disclosed are shown in *italics*.

In 2009 (latest available data), mining supported 101 jobs representing 3.0 percent of total private wage and salary employment. Fossil fuel development (coal, oil, natural gas), a subset of mining, supported 55 jobs representing 1.6 percent of total private wage and salary employment.

The timber industry accounted for 0.06 percent of total private wage and salary employment in 1990. While it is difficult to count the number of jobs related to grazing, in 2009 agricultural jobs as a whole accounted for 1.5 percent of total employment in the same year.[20]

Although a relatively minor component of the value of public lands in Grand County, these commodity activities are important to the individuals and businesses that operate in these industries.

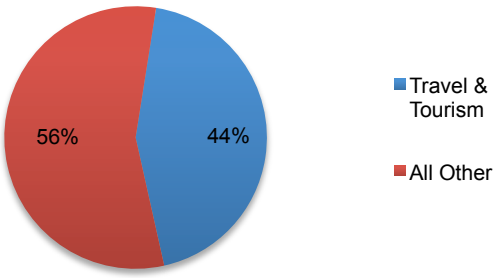
Public Lands Travel and Tourism, Recreation

Sectors associated with travel and tourism represent a large portion of the economy in Grand County. This section of the report details ways that recreation on public lands in Grand County contributes to the local economy.

Travel and Tourism Sectors in Grand County

There are a number of ways to measure the recreation impact of public lands. We begin here with an overall description of all tourism-related sectors in the county, regardless of the activity or where it takes place.

Employment in Travel & Tourism, Share of Total and Details, 2009



	Grand County, UT
Total Private Employment	3,378
Travel & Tourism Related	*1,486*
Retail Trade	160
Gasoline Stations	77
Clothing & Accessory Stores	14
Misc. Store Retailers	69
Passenger Transportation	*21*
Air Transportation	*8*
Scenic & Sightseeing Transport.	13
Arts, Entertainment, & Recreation	*91*
Performing Arts & Spectator Sports	*5*
Museums, Parks, & Historic Sights	*4*
Amusement, Gambling, & Rec.	*82*
Accommodation & Food	*1,214*
Accommodation	*551*
Food Services & Drinking Places	663
Non-Travel & Tourism	1,892

Source: U.S. Department of Commerce. 2011. Census Bureau, County Business Patterns. This table does not include employment data for government, agriculture, railroads, or the self-employed because these are not reported by County Business Patterns. Estimates for data that were not disclosed are shown in *italics*.

Travel and tourism-related industries supported 1,486 private wage and salary jobs, or 44 percent of total, in the county in 2009. These sectors provide goods and services to visitors to the local economy, as well as to the local population. These industries are: retail trade; passenger transportation; arts, entertainment, and recreation; and accommodation and food services. [21]

In 2009, the largest component of travel and tourism-related industries was accommodation and food services (i.e., hotels, restaurants, bars, etc.), which supported 1,214 private wage and salary jobs, representing 82 percent of travel and tourism-related jobs.[22]

The exact proportion of the jobs in these sectors attributable to expenditures by visitors, including business and pleasure travelers, versus by local residents, is unknown without additional research. It is safe to assume, however, that the majority of these sectors rely on out-of-area visitors.

The following sections detail the contributions from visitation to various types of public lands, including national parks, and BLM, Forest Service, and state lands. Statistics that follow are based on existing research, plus additional analysis of existing data conducted by Headwaters Economics.

Contributions from Visitation to National Parks

Arches National Park and Canyonlands National Park are both important to Grand County. National Park Service lands (i.e., Arches National Park) constitute only 3.3 percent of the land base in the county (76,600 acres), but Moab is the principal gateway to both national parks.

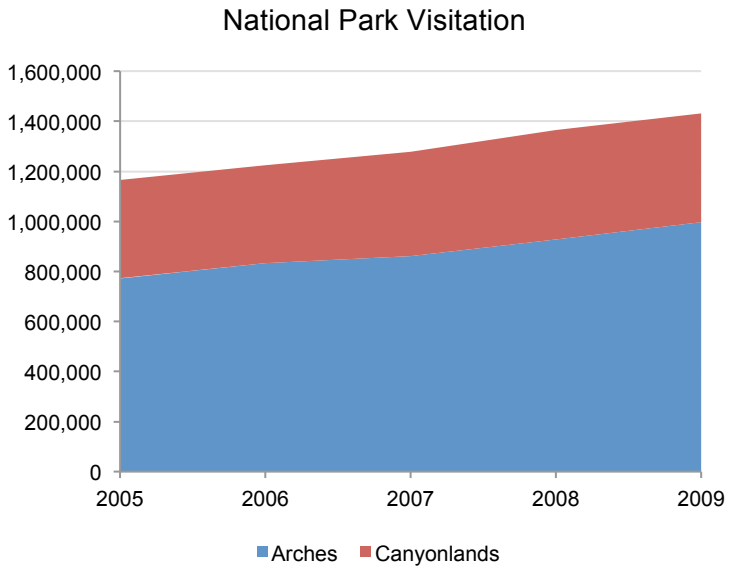
The mission of the National Park Service (NPS) is "to promote and regulate the use of the national parks which purpose is to conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations."[23]

Researchers at Michigan State University, working with the NPS, conducted surveys of visitors to all park units in the country and have estimated their economic contributions using the Money Generation Model (MGM2). The results of their research are displayed via an on-line interactive tool on the Headwaters Economics web site (http://headwaterseconomics.org/apps-public/nps/impacts/) and are displayed below for Arches and Canyonlands national parks.[24] A detailed methodology describing the MGM2 model is shown in Appendix A.

National parks bring outside money to local economies in two ways: visitor spending and payroll impacts generated primarily through park employment. The NPS reported that, in fiscal year 2009, there were 996,312 visits to Arches National Park and 436,241 visits to Canyonlands National Park, up 29 percent and 11 percent respectively, from 2005 to 2009.[25]

In fiscal year 2009, area national park visitor spending contributed to an estimated $44.7 million in labor income while NPS payroll contributed another $8.8 million in labor income, resulting in $53.5 million in total labor income.[26] To put this in perspective, total labor earnings in Grand County for 2009 were $192 million.[27]

In fiscal year 2009, national park visitor spending and NPS payroll contributed to 2,181 jobs and resulted in 135.7 million dollars in spending.[28] To put this in perspective, total employment in Grand County for 2009 was 6,687.[29]



Source: U.S. Department of the Interior. 2009. National Park Service. Natural Resource Program Center. Economic Benefits to Local Communities from National Park Visitation and Payroll.

Visitation and Jobs Supported by National Parks in Grand County Area, 2009

2009	Arches	Canyonlands	Total
Visitation	996,312	436,241	1,432,553
Local Jobs	1,544	460	2,004
NPS Jobs	28	149	177
Total Jobs	1,572	609	2,181

Source: U.S. Department of the Interior. 2009. National Park Service. Natural Resource Program Center. Economic Benefits to Local Communities from National Park Visitation and Payroll.

Contributions from Visitation to BLM Lands

Bureau of Land Management lands constitute 66 percent of the land base in Grand County (1,553,670 acres). The mission of the BLM is to "sustain the health, diversity, and productivity of the public lands for the use and enjoyment of present and future generations."[30]

Headwaters Economics obtained the results of a 2007 visitor survey conducted by the BLM and used the IMPLAN modeling software to estimate the economic impacts of visitors to BLM lands to the economy of Grand County.[31] The methods and detailed findings are presented in Appendix B.

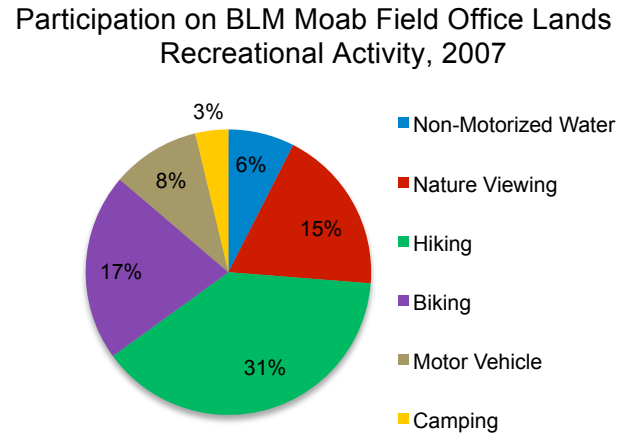
The BLM estimates that in fiscal year 2007 there were 1,179,500 visits to BLM Moab Field Office lands. A total of 1,553 visitors were contacted on BLM lands during the time the survey was taken, of which 1,268 agreed to be interviewed. Of those, 1,038 were using BLM lands for recreation.

Visitors spend money on a variety of items, including hotels, restaurants, bars, sporting goods stores, gasoline, and other goods and services. Based on responses to the survey, a "spending profile" was developed for each type of recreation user of BLM lands and the economic impact on their spending was calculated. In fiscal year 2007, the economic impact of non-local BLM visitor spending was $177 million in local output and more than $64 million in labor income for Grand County.

The economic impact of spending by non-local visitors to BLM lands supported 2,447 jobs in the county in fiscal year 2007. To put this in perspective, at the time the survey was conducted there were 5,556 jobs in Grand County according to the IMPLAN model. (The U.S. Department of Commerce reports 6,724 people employed in the county in 2007, when the survey was taken. Their estimate includes the self-employed.) [32]

As noted earlier, non-local visitors also visit other lands while in Grand County, including NPS, Forest Service and/or state lands, and therefore the impacts of their expenditures may not be attributed exclusively to BLM lands—that is, at least a portion could be attributed to other public lands.

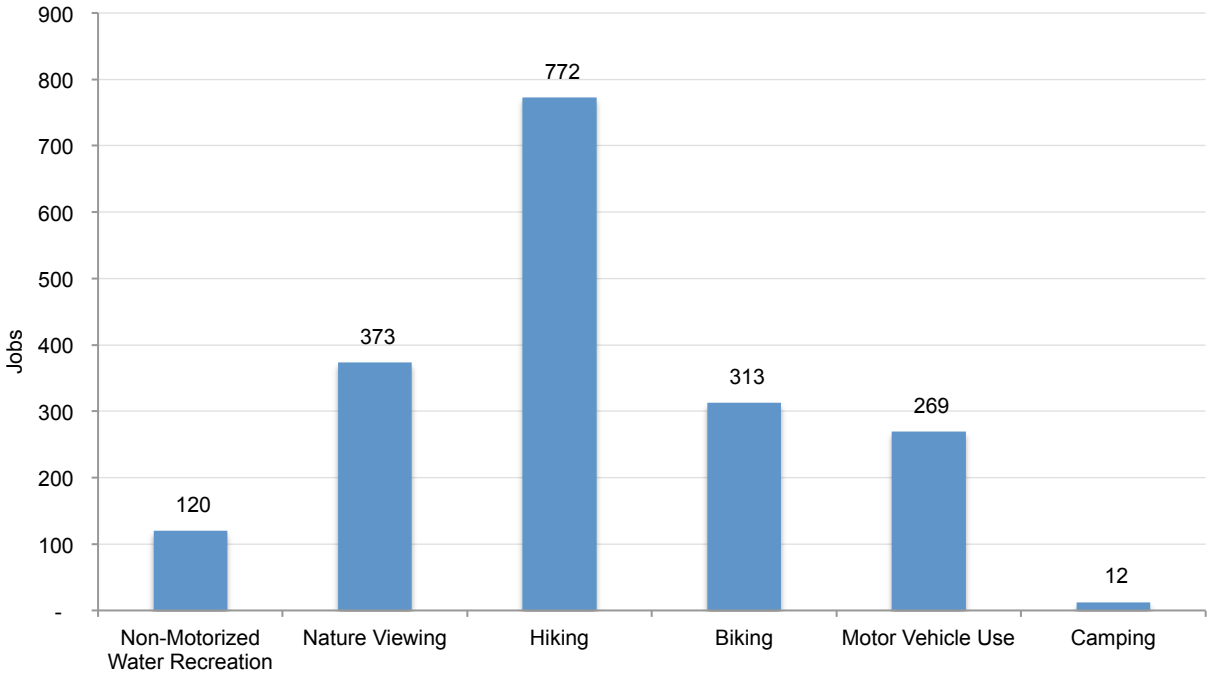
Hiking was the activity that most survey respondents said was their primary activity (31%), followed by biking (17%), and nature viewing (15%).



Source: National Visitor Use Monitoring Results for Moab Field Office. December 2007. Data collected FY2006. Bureau of Land Management, Moab Field Office, Moab, Utah (NVUM Moab 2007).

The largest jobs impacts (a combination of the number of users and the typical spending profile for the user type) came from people who said their primary activity was hiking (772 jobs), followed by nature viewing (373 jobs) and biking (313 jobs). Motor vehicle activities, which include driving for pleasure, off-highway vehicles, and 4WD recreation, contributed 269 jobs.

Total Economic Impacts in Terms of Jobs Resulting from Expenditures by Non-Local Visitors to BLM Lands, Grand County, Utah, 2007

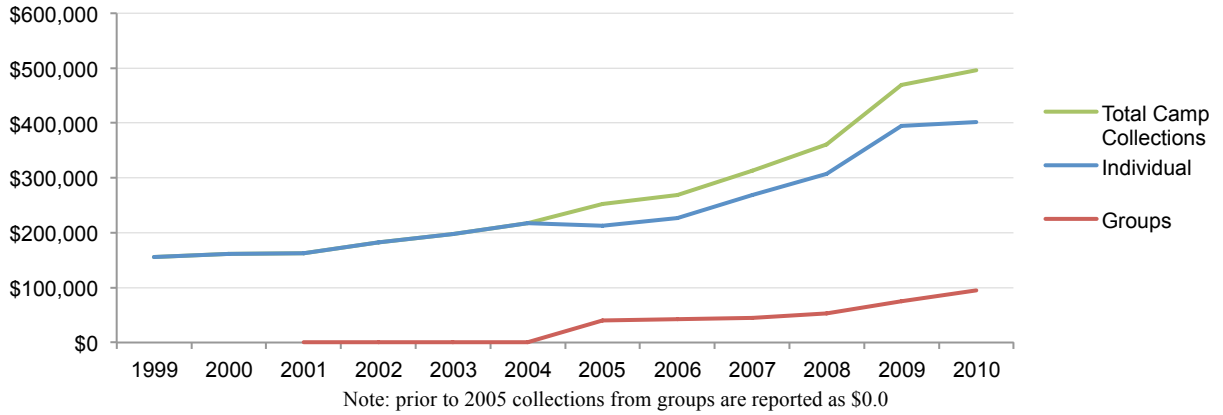


Source: National Visitor Use Monitoring Results for Moab Field Office. December 2007. Data collected FY2006. Bureau of Land Management, Moab Field Office, Moab, Utah (NVUM Moab 2007). Note: Motor Vehicle Use includes Driving for Pleasure, Off-highway Vehicles, and 4WD Recreation.

Long-term visitation trends on BLM lands in Grand County are difficult to obtain. It is known that visitor days in fiscal year 2010 were 1,258,456, up 7.1 percent from 1,175,104 visitor days in fiscal year 2009, which is impressive given the broader economic climate of recession.[33]

Another way to gauge the trend in recreation use on BLM lands in the county is to track payments made at various BLM campgrounds. Total payments have increased steadily. From 2000 to 2010, collections from campground payments increased by more than 200 percent. Collections through the recession—from 2006 (before the recession started) to 2010 (after the recession ended)—increased by 85 percent.[34]

Individual, Group, and Total Campground Collections, Moab Field Office



Note: prior to 2005 collections from groups are reported as $0.0

Source: Campground collections data and figure from Bill Stevens, Moab Field Office, BLM. Moab, Utah.

Contributions from Visitation to Forest Service Lands

U.S. Forest Service (Manti-La Sal National Forest) lands constitute 2.4 percent of the land base in Grand County (57,21 acres). The mission of the Forest Service is to "sustain the health, diversity, and productivity of the Nation's forests and grasslands to meet the needs of present and future generations."[35]

The Manti-La Sal National Forest recently reported the results of their National Visitor Use Monitoring (NVUM) study for data collected in fiscal year 2006.[36] (Statistics that follow on this and following pages are drawn from this analysis.) The results cover the entire forest, which is described by the agency as "a group of far-flung islands of forest that are scattered from Central Utah to southeastern Utah and western Colorado."[37]

Annual visitation to the forest in 2006 was estimated to be 793,400 visitors (for comparison, the BLM estimated 1,834,724 visits in 2010 to BLM lands in Grand County and visits to Arches and Canyonlands National Parks totaled more than 1.4 million in 2009). The percent of survey respondents who said "viewing natural features" was their primary activity was 30 percent, followed by "snowmobile travel" (13.3%), "driving for pleasure" (9.8%), "hunting" (8.9%), "fishing" (7.3%), "relaxing" (5.4%) and "hiking or walking" (5.2%). The remaining categories (e.g., "bicycling" and "motorized trail activity") were reported as a primary activity by less than three percent of respondents. However, 13.6 percent said they participated in "motorized trail activity" (although not their primary activity). The activity with the most frequent participation was "viewing natural features" (66.4%).

Visitation to Forest Service and BLM Lands, Grand County, Utah

	Manti-La Sal National Forest (FY 2006)	BLM lands in Grand County (FY 2009)
Percent of county land base	2.4%	66%
Total estimated visits	793,400 (entire forest)	1,179,500 (Moab Field Office)
Average spending per party/per trip	$320	$503
Percent of visitors non-local	40.1%	77.1%

Source: U.S. Forest Service. March 2009. National Visitor Use Monitoring Results, Manti-La Sal National Forest. National Visitor Use Monitoring Program.

The majority of visits (47%) to the Manti-La Sal National Forest were by locals. Non-local visits made up another 40 percent. The remainder of visitors were people for whom the forest was not their primary destination.

The Forest Service also studied the spending patterns of visitors because, in the agency's words, "As commodity production of timber and other resources has declined, local communities look increasingly to tourism to support their communities."[38] Based on responses to the survey, a "spending profile" was developed for each type of recreation user of Forest Service lands. Average spending per trip per visiting party to the forest was estimated to be $320 in 2006.

The NVUM study for the Manti-La Sal National Forest did not include the use of the IMPLAN modeling software to estimate the economic impacts of visitors. A sense of the relative magnitude of the economic impact of the entire forest can be obtained by comparing key statistics to BLM lands in Grand County: the forest is a much smaller portion of the land base in the county, and there are fewer visitors who spend less, and are more likely to be local and not bring outside money to the county.

As noted earlier, the impacts of the Grand County portion of the Manti-La Sal National Forest are much smaller than reported above because the NVUM study conducted by the Forest service covered the entire forest and additional counties.

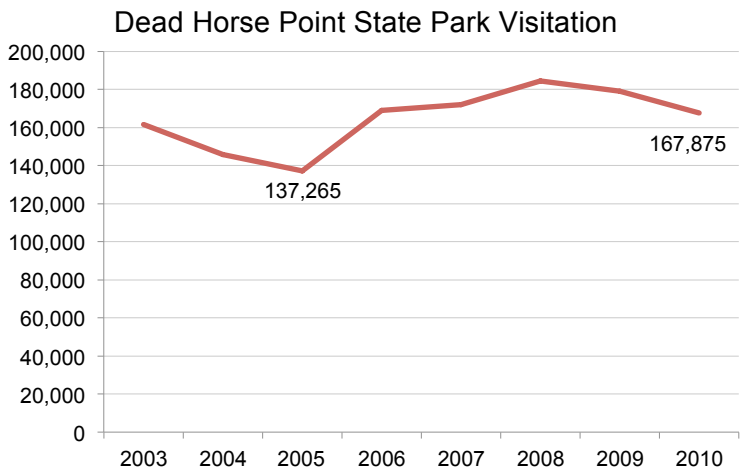
Contributions from Visitation to State Lands

State lands constitute 15.5 percent of the land base in Grand County (365,342 acres). About 95 percent of these are State Trust Lands, which are held in trust for designated beneficiaries, such as public schools. Managers typically lease and sell these lands for a diverse range of uses to generate revenues for the beneficiaries.[39]

The School and Institutional Trust Lands Administration (SITLA), an independent agency of state government, was established "to manage lands that Congress granted to the state of Utah for the support of common schools and other beneficiary institutions, under the Utah Enabling Act." Further, SITLA "must manage the lands and revenues generated from the lands in the most prudent and profitable manner possible, and not for any purpose inconsistent with the best interest of the trust beneficiaries."[40]

SITLA lands are used in a number of ways, from grazing and mineral development to telecommunications sites, sightseeing, and recreation. In 2009, the Utah Recreational Land Exchange Act, at the behest of SITLA and other stakeholders, facilitated the transfer of sensitive, aesthetically pleasing, or recreation intensive lands to the BLM in exchange for parcels with greater resource extractive value. As a result, several parcels of SITLA land close to Moab with high scenic and recreational value were turned over to the BLM.[41]

In addition to State Trust Land, Grand County also contains Dead Horse Point State Park. Situated next to Canyonlands National Park, Dead Horse Point offers magnificent scenery and recreational opportunities, including camping, hiking, ATV use, and mountain biking. Visitation to Dead Horse Point has fluctuated in the 2000s. It went from 145,800 visits in 2003 down to 137,265 in 2005 before rising to 184,560 visits in 2008 and back to 167,875 in 2010.[42] The reasons for changing visitation levels are not clear, though the latest recession may account for a portion of recent declines. In 2010 the new Intrepid Trail System for hikers and mountain bikers was established. This amenity is already drawing new users to the park. In part because gate staffing hours were expanded, park revenues are on the rise, and in FY 2011 were $710,000. Revenues now exceed operating costs almost two to one.[43]



Source: Utah State Parks. Utah State Parks Visitation. http://stateparks.utah.gov/about/visitation.

Other recreational state lands in Grand County include the Sovereign trail system, which primarily accommodates mountain biking and motorcycle trail riding, and the North Block which lies on the eastern flank of the La-Sal Mountains and is generally used for hunting, camping, and motorized recreation. Sovereign, a popular trail system north of Moab, sees at least 10,000 mountain biking visits and 1,000 motorcycle visits per year according to traffic counters.[44]

Other Recreation Studies

What follows is a summary of other related studies on the public lands economic values.

Survey of Local Residents Regarding Public Lands: In 2007, a survey was conducted by Utah State University to find ways that Utah residents use and value public lands. The portions of the survey pertaining to Grand and San Juan counties were used as part of the BLM's Resource Management Plan for the Moab Field Office. More than a third (38.5%) of Grand County survey respondents said a member of their household operates or works at a business linked to recreation or tourism activity that is influenced by the presence of public lands and resources. When asked about the importance of public lands to their business, 63.6 percent said "extremely important."[45]

By comparison, only 6.9 percent of Grand County respondents reported that a member of their household works in a business that "provides services or supplies to farming and ranching, logging firms, or other commercial enterprises that use or process natural resources located on public lands."

More than half of those interviewed in Grand County reported using public lands for "camping, picnicking, day hiking, wildlife viewing, visiting historical sites, 4-wheel driving, and driving for pleasure/sightseeing." When asked whether selected uses of public lands are "very important" to their quality of life, the highest responses were for "water resources used to supply homes and businesses" (83.6%); "water resources that provide important fish/wildlife habitat" (82%) and "areas that attract tourism and recreation" (78.8% of survey respondents).

Changes Since the 1990s: The proportion of people employed as a result of spending by visits to the Moab area has grown significantly in the last decade. In 1998 Lynne Coughlin, a masters student at Colorado State University, wrote a thesis on the economic impact of tourism in Grand County. Using the IMPLAN modeling software, she estimated that 19 to 24 percent of all output (the change in local sales or revenue) and 22 to 27 percent of employment in Grand County could be accounted for by visitor spending in 1995.[46] This is significantly less than the 44 percent share for 2009 we cite earlier using County Business Patterns data on private wage and salary employment, and may indicate that the travel and tourism share of the broader economy has grown significantly since the 1990s.[47]

The Impact of Mountain Biking: A number of studies have been conducted to measure the impact of mountain biking in the Moab area. One 1998 study calculated the "consumer surplus," which is a measure of the difference between the maximum price a consumer is willing to pay and the actual price they do pay. They concluded that the bike trails in the Moab area "produce a high consumer surplus to the users," amounting to between $197 to $205 per trip. The consumer surplus for the Slickrock trail alone was $8,422,800 to $8,770,300 in 1998. One of the implications of the study is that annual visitor rates are not sensitive to fees because users believe they are getting a good deal (i.e., a high "consumer "surplus") and an entrance fee (e.g., to the Slickrock trail) is a small part of overall trip costs.[48]

Another 1998 study found that the average "willingness to pay" (WTP) by a mountain biker is $1,483 (WTP is the maximum amount a person would be willing to pay for a good). The total annual use value of mountain biking in the Moab area was estimated to be $1.33 million. The authors concluded: "This value suggests that this recreation has a higher value than most other activities in the area and that public lands managers should be aware of the relative value of mountain biking as they make allocation decisions."[49]

In 2002, a survey was conducted of mountain bikers on the Slickrock trail: 98 percent lived outside the Moab area; their mean household income was $42,000 (the mode, which is the most frequently cited value from survey responses, was $80,000/year); 86 percent had a college degree; 79 percent were males; and most (67%) were between the ages of 21 and 35 (although 29% were over 34). Forty-one percent worked in professional occupations and 13 percent were students. More than 80 percent of those surveyed on the Slickrock trail said they support using fees to help improve management of the area. [50]

The 2007 visitor survey conducted by the BLM and the results of the IMPLAN modeling software analysis (see Appendix B) show that non-local visitors who reported that their primary activity was biking stimulated 312 local jobs and more than $8.4 million in labor income. The same survey showed that "bicycling/mtn. biking" was reported as the main activity by 13.5 percent of those interviewed.[51]

The Impact of Off-Highway Vehicle Use: A study of the 1997 Easter Jeep Safari revealed a number of statistics about participants. The median household income was $55,000 per year; 29 percent were employed in managerial occupations, 22 percent as craftsmen, and 17 percent in professional occupations; and the majority (57%) were from Utah, but only 4 percent from immediate neighboring counties. The second largest group of participants was from Colorado (15%), followed by California (8%), New Mexico (4%) and Arizona (3%). When asked about their preferences for the management of the lands, the highest ranked priorities were "protect historical/cultural artifacts," followed by "protect wildlife," and "provide four-wheeling safety and trail etiquette information." About 72 percent of respondents said they would be willing to pay a fee to go four-wheeling.[52]

The 2007 visitor survey conducted by the BLM and the results of the IMPLAN modeling software analysis (see Appendix B) show that non-local visitors who reported that their primary activity was motor vehicle use (includes driving for pleasure, off-highway vehicles, and 4WD recreation) stimulated 269 local jobs and more than $7 million in labor income. The same survey reported that "riding a dirt bike or ATV" was the primary activity for 3.2 percent of respondents, followed by "driving a 4WD vehicle" by 3.2 percent of respondents.[53]

Mineral Bottom Road: A good indication of the importance of public lands to the county is how land managers responded to the recent closure and rapid re-opening of the Mineral Bottom Road. A key access point to the Green River and the much-used White Rim Road in Canyonlands National Park, the road was washed out in a flood on August 19, 2010. The BLM estimated that the loss of access by outfitters, residents, and visitors would cost the Grand County economy annually 87 jobs, close to $5 million in direct and indirect sales, and a $319,000 decline in state and local tax receipts. The BLM applied for funds from the U.S. Department of Transportation to repair the road, and by March 29, 2011 the road was re-opened.[54] This example illustrates the importance of public lands to the local economy, and how a clear documentation of that value can lead to rapid results and cooperation among local, state, and federal governments as well as the private sector.

Public Lands as an Attractant to People and Businesses

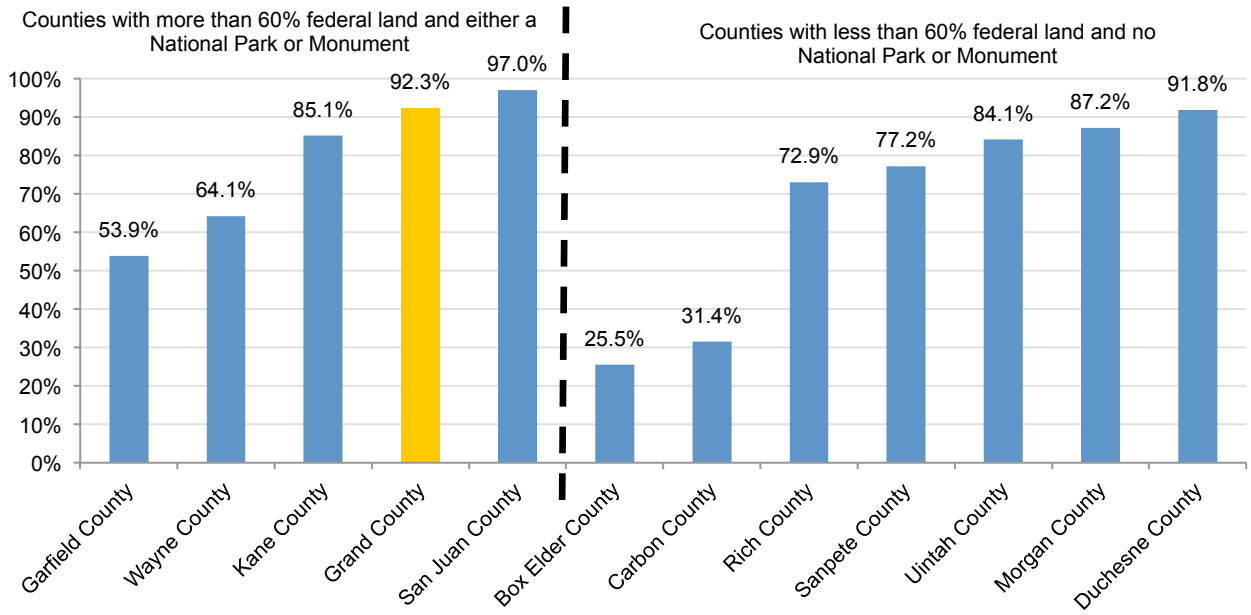
In addition to the economic benefits of extraction and visitor recreation, the presence of public lands and the environmental and recreational amenities they provide are closely linked to economic growth. Business owners, retirees, and others have discovered that communities adjacent to public lands with scenic vistas and ample recreation opportunities are desirable places to live and conduct business.[55]

There is a growing body of literature documenting that attractive public lands draw amenity migrants who in turn stimulate economic expansion. One recent study found that counties in the West with national parks, national monuments, and other protected public lands, set aside for their wildland characteristics, play an important role in stimulating economic growth.[56]

In Grand County— where nearly a third of the population growth over the last decade came from in-migration and half of all residents say they participate in camping, hiking, wildlife viewing, and other activities on public lands—attractive public lands are clearly a reason why people live and conduct business here.

When compared to other rural counties in Utah, Grand County's rate of job growth has been relatively high since 1990. While federal public lands, and national parks and national monuments in particular, are not the only reason for economic growth, in Grand County their presence is consistent with a high rate of employment growth (+92.3% since 1990).[57]

Percent Change in Employment, Utah Counties, 1990-2009



Source: U.S. Department of Commerce. 2011. Bureau of Economic Analysis, Regional Economic Information System.

Employment growth is not just tied to the tourism and recreation sectors. County employment in finance and insurance (+41%), and professional and technical services (+23%), for example, has grown substantially since 2001. And non-labor sources of income, which are significantly retirement-related, continue to be the fastest growing source of new personal income, adding $47 million, in real terms, since 2000.

A number of factors have contributed to this relatively new form of growth across the West:

- The ability of some professionals, such as software developers, financial consultants, engineers, architects and other so-called "knowledge-based" occupations, to "de-couple" from the city and the factory floor, thereby becoming "footloose" and able to live (almost) anywhere;

- The advancement of telecommunications technology, efficient delivery services (e.g., FedEx, UPS), and the growth of regional transportation networks (especially airports), which make it possible for people to stay connected to larger markets while living in more remote, "rural" locations than they could 10 or 20 years ago;

- The scattering of the global assembly line, where the factory can be at one end of the world and entrepreneurs, managers, marketers, designers, and other "footloose" occupations can reside in smaller rural communities with a high quality of life;

- An affluent and aging population, including both the World War II generation and the retiring baby boomers, that is stimulating growth with their savings, investments, and business connections as well as their relocation to places with a high quality of life to either retire, semi-retire, or open a business;[58]

- The increased demand for outdoor recreation; and the relative scarcity of places with a high quality of life that includes wide-open spaces and a pristine environment.

While amenities such as protected public lands are important to economic development, by themselves they may not be enough to stimulate growth. For example, many business owners, especially in the higher-wage services industries (architects, engineers, software developers, etc.) need access to reliable daily air service to major markets and population centers.[59] The expansion of this type of higher-skill and "footloose" business may require improved air service to flourish in the Moab area.

Grand County may be positioned to benefit from the upcoming "baby boomer tsunami." According to the Economic Research Service (ERS) of the U.S. Department of Agriculture, baby boomers will be seeking places with a high quality of life to retire or semi-retire. The ERS found that from 1990 to 2000, the net migration of baby boomers was the greatest in places that had the highest level of natural amenities: "Whether adjacent to big cities or less accessible, counties with desirable physical attributes—pleasant climates, mountains, beaches, lakes—are likely to increase their already high share of baby boomer migration."[60]

V. Government Revenues

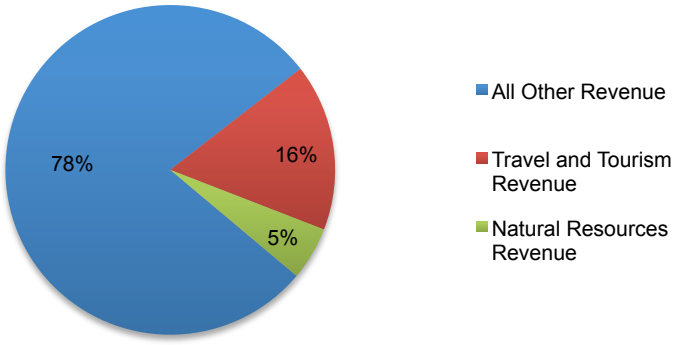
Revenue from Travel and Tourism and Natural Resources

In addition to employment and personal income in the private sector, public lands and the economic activities they support generate revenue for local governments, including schools, municipalities, and county government.

This section describes the fiscal benefits of the travel and tourism, and mining industries—both closely associated with public lands—to local governments in Grand County. See Appendix C for more detailed information and methods.

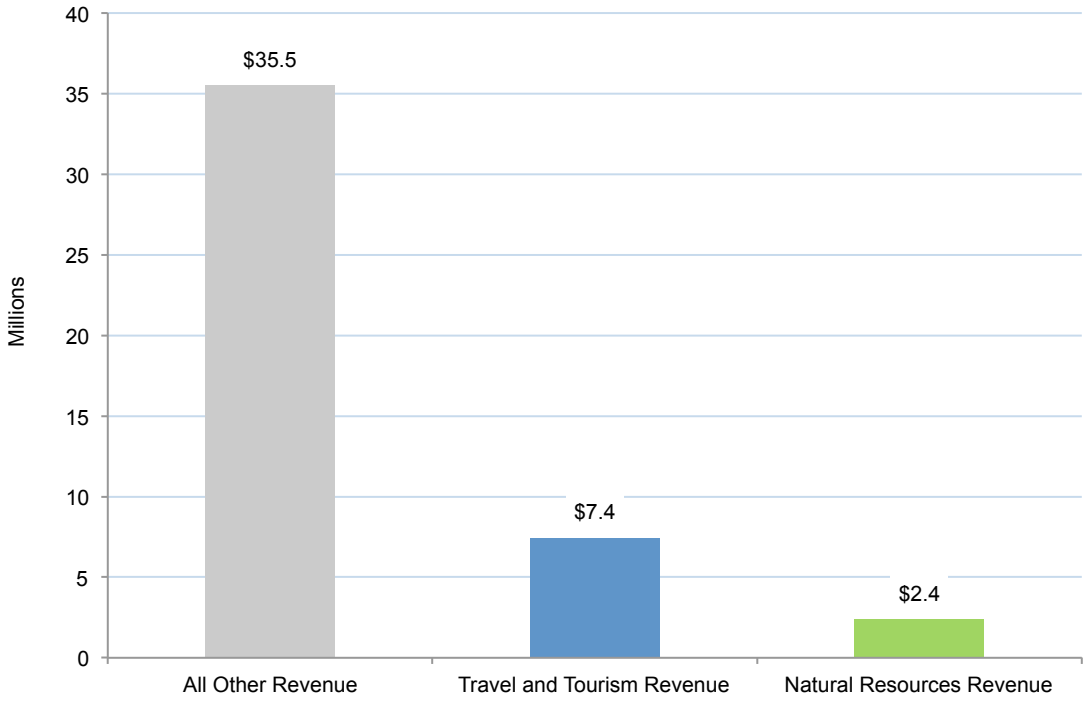
Local governments in Grand County collected more than $45 million to fund schools, public safety, roads, and other governmental services in 2009. Of the total revenue, about $7.4 million was generated from travel and tourism industries (16% of total revenue), and about $2.4 million from natural resources industries, including mining (5% of total revenue).[61]

Local Government Revenue, Grand County, Utah, 2009



Source: See Endnote 61.

Travel and Tourism, and Natural Resources Revenue, Grand County, Utah, FY 2009

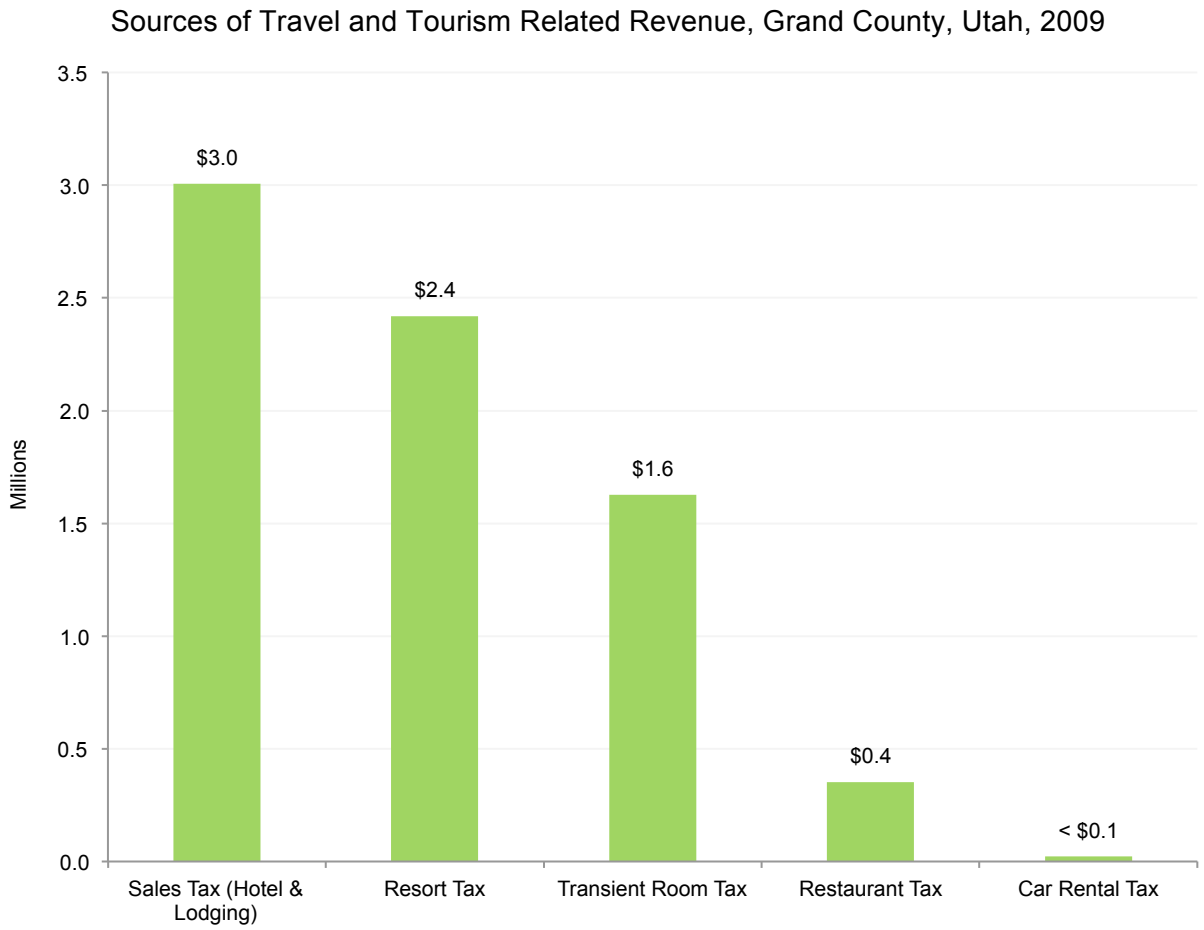


Source: See Endnote 61.

Local governments in Grand County rely chiefly on general property and sales taxes, and charges and fees on service users for revenue. (Grand County collects 69 percent of its revenue locally, while 31 percent comes from state and federal sources.)

Sources of Travel and Tourism Revenue

Travel and tourism taxes bring in significant revenue to local governments, including the resort tax ($2.4 million), transient room tax ($1.6 million), restaurant tax ($352,000), and car rental tax ($22,000). The general sales tax on hotels and lodging is the single largest source of travel and tourism-related revenue ($3 million).[62]

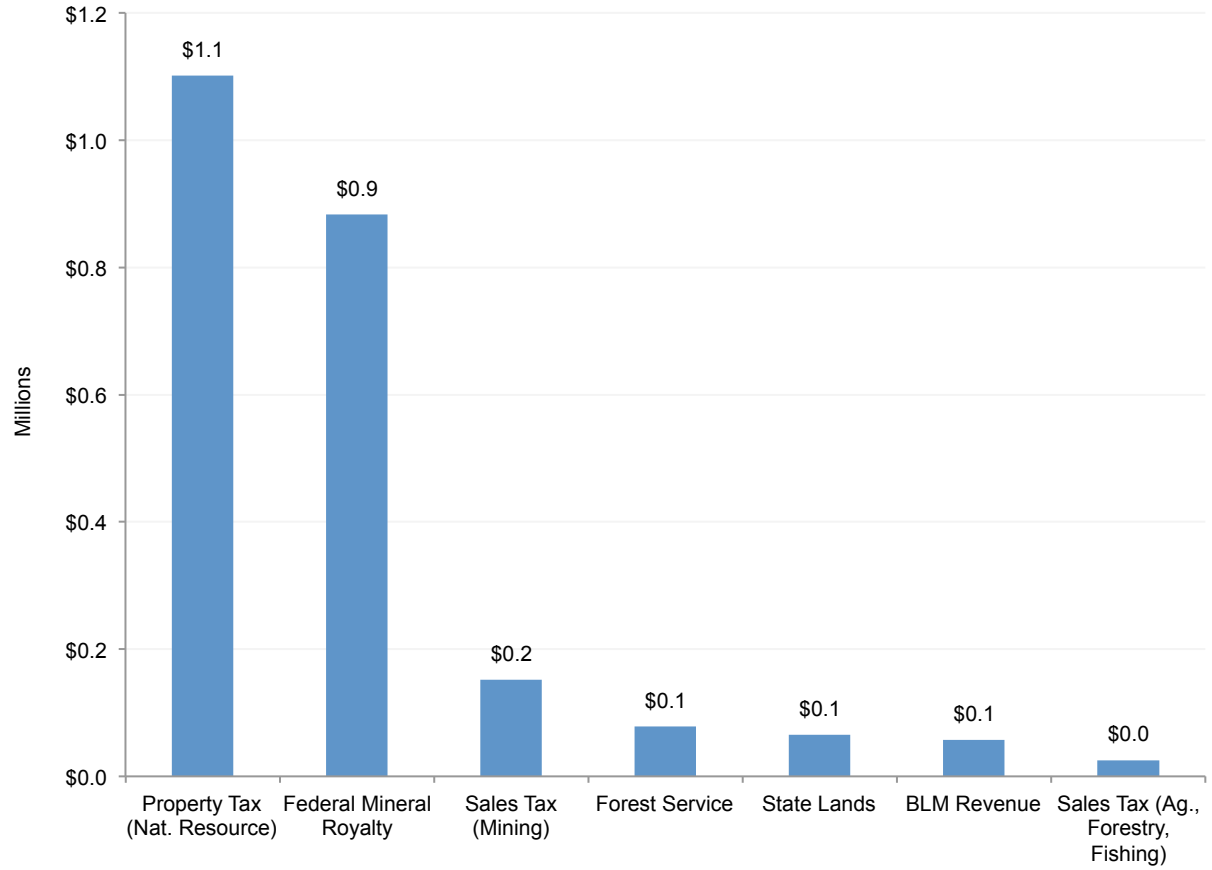


Source: Property Tax: Utah State Tax Commission. Property Tax Division. Annual Statistical Report, 2009. Sales Tax: Utah State Tax Commission. Sales Tax Data, Quarterly Taxable Sales, 2009. Tourism Tax Revenues. 2007-2009.

Sources of Natural Resources Revenue

Local governments receive natural resources revenue from two basic types: local taxation of the natural resources industries, and payments from the federal government based on the value of resources extracted from public lands. The largest natural resource revenue source is property taxes ($1.1 million), followed by federal mineral royalties ($883,000).[63]

Sources of Natural Resource Revenue to State and Local Government, Grand County, Utah, FY 2009



Source: Forest Service: U.S. Department of Agriculture. 2009. Forest Service Final Payment Detail Report ASR 10-3 and ASR 18-1. BLM: U.S. Department of Interior. 2009. Bureau of Land Management. FRD 196. 2009. Federal Mineral Royalties: distributions of federal mineral royalties through the Utah DOT are online for state fiscal year 2001 to 2010.

Local revenue from extracting natural resources (5% of total revenue) is smaller than taxes generated from travel and tourism industries (16% of local taxation), which generate three times more taxes than natural resources.

VI. Summary & Discussion

The public lands in Grand County—because of both their extensiveness and their beauty—have directly influenced and shaped the county's economic performance. Looking ahead, these lands will continue to play a vital role in the future economic health and prosperity of the region, and a key challenge facing Grand County leaders is how to maximize the long-term return from this valuable asset.

Grand County residents have embraced their public lands. More than one-third of families have a member that works in a tourism and recreation business related to public lands, and nearly two-thirds of local residents indicate that public lands are "extremely important" to their business.

This study examines a wide range of public lands uses, including mining and agriculture, but focuses on recreation because this type of use represents the largest, most complex, and least well understood activity on public lands in the county.

Over time, Grand County's public lands have supported economic growth in a variety of ways. In the second half of the 20th century, mining activities played a significant role in the region's economy. Since peaking in 1981, however, the share of Grand County residents employed in mining fell rapidly and plateaued at two to three percent of total employment for the past fifteen years.

Today, tourism and recreation on public lands are the largest economic sector in Grand County. Businesses operating in these areas are the main drivers of the local economy (they account for 44% private employment in the county) and also produce a significant amount of tax revenue (16% of local government revenue). Within this sector, accommodation and food services and retail trade are the dominant businesses, accounting for more than 80 percent of tourism and recreation jobs.

Looking at federal public lands specifically, IMPLAN analysis shows that area BLM lands supported 2,447 direct jobs in 2007. For the National Park Service, the Money Generation Model (MGM2) shows that area national parks supported 2,181 direct jobs in 2009. (Note: these data should not be added together.) To put this in perspective, the Bureau of Economic Analysis reports that in 2007 there were 6,724 total jobs in Grand County, and in 2009 there were 6,687 total jobs in the county.

These and other public lands support a wide range of recreational opportunities in Grand County, including sightseeing and nature viewing, mountain biking, hiking, rock climbing, camping, horseback riding, motorized recreation, exploring, and river floating. In many cases visitors participate in a mix of these outdoor activities.

In effect, a significant reason for the county's economic success stems from the diversity found today *within* its tourism and recreation economy. Finding ways to sustain and develop tourism and recreation that appeals to a wide mixture of visitors and residents is paramount to long-term well-being and economic resilience.

Within the diversity of public lands users, some activities are more prevalent than others. BLM surveys show that hiking is the most common activity on its lands, followed by biking and nature viewing. Using a tailored spending profile, IMPLAN analysis shows that hiking on BLM lands has the largest economic impact, followed by nature viewing, biking, and motor vehicle use.

While it is important to appreciate which type of recreation produces the largest impacts, it is equally vital for Grand County to continue to offer a wide variety of recreational activities on area public lands because *together* they make up the lion's share of the local economy.

Encouragingly, studies conducted over the last decade consistently show that public lands users, such as mountain bikers and OHV drivers, see their outdoor experience in Grand County as a good value and are willing to help pay for upkeep and management. The same studies show that these visitors have the disposable income to follow through on this inclination.

In addition to the economic benefits of tourism and recreation, Grand County's picturesque and high-profile public lands—and the environmental and recreational amenities they provide—are closely linked to population growth and other economic benefits. The county, for example, has had success attracting new residents who find the communities and surrounding public lands in the area compelling—almost one-third of net population growth in the last decade resulted from in-migration. Trading on natural amenities, the county has increased non-labor sources of personal income (+54%, or $47 million new dollars, in real terms, from 2000 to 2009), especially retirement-related income, which has boosted per capita income and added stability to the local economy.

Despite past success, future growth in Grand County cannot be taken for granted. The boom years of the 1990s when the county's economy grew by seven percent annually have yielded to the 2000s when the economic growth rate slowed to two percent annually. This deceleration should lead to discussion on how Grand County can best utilize public lands to remain economically competitive.

As the tourism and recreation economy matures in Grand County, specific issues to consider are:

- Whether different users are crowding each other out and diminishing one another's experience;
- The continued quality of the landscape and uniqueness of the outdoor offerings; and
- The area's ability to compete with rivals in the outdoor recreation market that have constructed new signature trail systems or are benefiting from newly created public lands protections.

To help ensure Grand County's future economic health, several steps are worthy of consideration:

- Educate the public to better understand the important economic role that public lands play in Grand County, including a periodic update on the county's economic health and trends, especially focused on tourism and recreation;
- Partner closely with public land managers on planning and decisions that impact public lands in Grand County, including supplemental work and funding to maximize the protection and return of public lands assets;
- Ensure the continued diversity of recreation options and the capacity for public lands to support a wide variety of user activities. In addition, make sure that recreation uses do not directly conflict and drive away visitors or create the impression that the county favors one form of recreation; and
- Utilize the national and international visibility created by public lands and recreation—such as national parks, the Colorado River, mountain biking, and jeep events—to attract visitors or retirees with the potential to relocate and bring new businesses and wealth to the region.

Grand County enjoys many economic benefits from nearby public lands. To continue to capitalize on the competitive advantage that these lands provide, the county and local groups should work collaboratively with state and federal officials to implement policies that sustain existing uses and also anticipate future development and protection needs.

VII. Appendix A

Economic Impact of Visitors to Arches and Canyonlands National Parks

National parks impact local economies in two ways: (1) by bringing outside money in from visitation and (2) by the payroll generated by the park itself. Non-local spending accounts for nearly all visitor spending at both Arches and Canyonlands national parks.[64]

Non-Local Spending Impacts

Visitation to Arches National Park and Canyonlands National Park steadily increased during the 2005-2009 period. Visitation to Arches National Park increased by 223,411 visits (29%), while Canyonlands National Park visitation increased by 44,800 (11%). Along with visitation, visitor spending has also increased. Non-local visitor spending for the 2005-2009 time period in Arches National Park increased by 25 percent from $81 million to $102 million, in real terms. Similarly, non-local spending in Canyonlands National Park increased by 74 percent from $19 million to $34 million, in real terms, over the same time period.

Non-local visitor spending contributes to jobs, income associated with those jobs, and value added to the local economy, which is a measure of "personal income plus rents and profits, plus indirect business taxes." Figures are lower in 2009 than in previous years due to a revision to the Money Generation Model (MGM2). Some overlap of the effects of spending may exist where visitors visited both parks on the same trip. In 2009, non-local visitor spending was estimated to have produced 1,544 local jobs (full- and part-time) that are attributable to spending associated with Arches National Park, while 460 local jobs were attributable to Canyonlands.

Labor income produced by non-local visitor spending related to Arches National Park was $33 million and $12 million for Canyonlands National Park for 2009. Overall value added to the local economy was estimated at $56 million for Arches National Park and $20 million for Canyonlands National Park for 2009.

Payroll Impacts

In addition to the income brought in from visitation, each national park itself generates economic activity due to payroll from employment directly linked to the park.

In 2009, Arches National Park contributed $1 million in salary with an additional $280,000 in benefits, supporting 28 jobs. This employment and income contributed to $1.4 million in related labor income and $1.6 million in value added to the local economy.

In 2009, Canyonlands National Park contributed $5.4 million in salary with an additional $1.5 million in benefits, supporting 149 jobs. This employment and income contributed to $7.4 million in related labor income and $8.6 million in value added to the local economy.

Table 1: Spending and Economic Impacts of National Park Visitors on Local Economies, Arches National Park, 2005-2009

Arches National Park		2005	2006	2007	2008	2009
Public Use Data	Recreational Visits	772,901	833,049	860,181	928,795	996,312
	Overnight Stays	52,511	51,855	50,793	50,855	54,274
Visitor Spending	All Visitors Spending (Thousands of 2010 dollars)	$81,338	$87,005	$90,839	$98,027	$101,557
	Non-Local Visitors Spending (Thousands of 2010 dollars)	$81,338	$87,005	$90,839	$98,027	$101,557
Impacts of Non-Local Visitor Spending	Jobs	1,736	1,949	2,093	2,345	1,544
	Labor Income (Thousands of 2010 dollars)	$28,492	$32,793	$34,238	$36,947	$33,165
	Value Added (Thousands of 2010 dollars)	$45,410	$51,744	$54,024	$58,299	$56,487

Table 2: Spending and Economic Impacts of National Park Visitors on Local Economies, Canyonlands National Park, 2005-2009

Canyonlands National Park		2005	2006	2007	2008	2009
Public Use Data	Recreational Visits	391,441	392,537	417,560	436,715	436,241
	Overnight Stays	97,151	87,422	91,224	96,113	90,033
Visitor Spending	All Visitors Spending (Thousands of 2010 dollars)	$20,440	$20,824	$23,068	$35,838	$34,176
	Non-Local Visitors Spending (Thousands of 2010 dollars)	$19,494	$19,851	$22,026	$35,491	$33,843
Impacts of Non-Local Visitor Spending	Jobs	416	366	418	699	460
	Labor Income (Thousands of 2010 dollars)	$6,829	$6,892	$7,647	$12,322	$11,557
	Value Added (Thousands of 2010 dollars)	$10,884	$10,656	$11,824	$19,053	$20,109

Table 3: Payroll Impacts of National Park Units on Local Economies, Arches National Park, 2005-2009

Arches National Park		2005	2006	2007	2008	2009
Park Payroll	Salary	$936	$915	$954	$897	$1,028
	Payroll Benefits (Thousands of 2010 dollars)	$291	$267	$265	$253	$280
	NPS Jobs	18	22	22	23	25
Impacts of Park Payroll	Total Jobs	24	29	29	30	28
	Labor Income (Thousands of 2010 dollars)	$1,364	$1,365	$1,409	$1,330	$1,405
	Value Added (Thousands of 2010 dollars)	$1,501	$1,502	$1,552	$1,464	$1,607

Table 4: Payroll Impacts of National Park Units on Local Economies, Canyonlands National Park, 2005-2009

Canyonlands National Park		2005	2006	2007	2008	2009
Park Payroll	Salary	$5,125	$4,910	$4,801	$4,912	$5,376
	Payroll Benefits (Thousands of 2010 dollars)	$1,503	$1,410	$1,367	$1,334	$1,453
	NPS Jobs	123	118	113	128	131
Impacts of Park Payroll	Total Jobs	158	155	149	167	149
	Labor Income (Thousands of 2010 dollars)	$7,380	$7,302	$7,128	$7,227	$7,385
	Value Added (Thousands of 2010 dollars)	$8,123	$8,039	$7,849	$7,965	$8,582

Methods Used

Michigan State University, in partnership with The National Park Service (NPS), developed the Money Generation Model (MGM2) to estimate the impacts of visitation and spending on local economies. The model summarizes economic impacts in terms of employment, sales, income, and value added to the local economy, which is defined as a 60-mile radius around the park unit.

Economic impacts are derived from three basic inputs:

1. Number of visitors
2. Average spending per visitor
3. Economic multipliers designed to capture indirect or induced effects

Visitation numbers are derived from park use statistics, while spending per visitor is either suggested by the MGM2 model or supplied by local statistics or surveys. Economic multipliers are based on input-output models of a region's economy (e.g., IMPLAN). Both direct (businesses that directly receive visitor spending) and indirect effects (consequences on supply chain) of visitation and spending are estimated.

VIII. Appendix B

Economic Impact of Visitors to BLM Lands in Grand County, Utah

The Moab Field Office of the Bureau of Land Management (BLM) participated in a National Visitor Use Monitoring (NVUM) pilot project during fiscal year 2007. NVUM is a visitor survey method developed and widely used by the U.S. Forest Service. The purpose of the Moab survey was to test whether the same methods could be applied to BLM lands to yield more accurate information about visitors to BLM lands and their economic impact.[65]

The BLM estimates that in fiscal year 2007 there were 1,179,500 visits to BLM Moab Field Office lands.[66] A total of 1,553 visitors were contacted on BLM lands during the time the survey was taken, of which 1,268 agreed to be interviewed. Of those, 1,038 were using BLM lands for recreation.[67] For fiscal year 2010, the BLM estimates there were 1,834,724 visits (1,258,456 visitor days) to the Moab Field Office lands.[68]

While the NVUM project provided the BLM with information on the number of visitors by type of activity (e.g., hiking, biking, motor vehicle) and their expenditures (e.g., on hotels, restaurants, gas, and gift shops), the data had not yet been analyzed to determine the economic impact of BLM visitation. In the fall of 2010, Headwaters Economics obtained the data from the Forest Service and analyzed the information using the IMPLAN model.[69] The methods and results are explained below.

Methods Used

To estimate the economic impacts of visitor spending, three pieces of information were used:

1. BLM visitation data—visitor estimates and proportion of visits by visitor segment;
2. Average spending profiles for each visitor activity; and
3. Economic multipliers (to capture the size of the secondary economic effects).

Visitor spending information was included in NVUM Pilot Test Results Report for the Moab field office. The economic multipliers were estimated using IMPLAN, with 2010 data for Grand County.

Summary of NVUM Visitation and Spending Estimates

The NVUM results segment visitors by the type of recreation trip taken to account for differences in spending patterns. Generally, visitors who live near the recreation location usually spend less than visitors traveling longer distances.

Visitors are segmented by the following seven groupings:

1. Local visitors on day trips;
2. Local visitors on overnight trips staying on BLM field office land;
3. Local visitors on overnight trips staying in lodging off BLM field office land;
4. Non-local visitors on day trips;
5. Non-local visitors on overnight trips staying on BLM field office land;
6. Non-local visitors on overnight trips staying in lodging off BLM field office land; and
7. Non-primary visitors.

Visitors are considered *local* if they traveled less than 50 road miles from home to the recreation site visited. *Non-local* visitors are those who travel greater than 50 road miles to the recreation site visited. One limiting element of the data was that the only survey respondents providing economic feedback were non-local visitors. Spending profiles were constructed with non-local expenditures and the results are, therefore, an estimate of the economic impact of non-local expenditures.[70]

Non-primary visitors are those for whom the primary purpose of their trip is something other than recreating on that field office managed land. Spending by non-primary visitors is not included in the economic analysis.

Table 1 shows the NVUM survey results for percent of visits by spending segment and the associated number of visits. Local visitation accounts for around 18 percent of the total annual number of visits for the Moab Field Office, while non-local visitation accounts for around 77 percent. The remainder is made up of non-primary visitors.

A couple of assumptions were made for logistical purposes. The data did not separate locals spending the night on BLM lands versus those who spent the night off BLM lands. After speaking with Bill Stevens from the Field Office, it was agreed that locals would typically be camping overnight, rather than spending the night in a hotel less than 50 miles from home. It was also assumed that non-locals who did not spend the night were day visitors.

Table 1. Percent and Number of Public Lands Visits (Visitor Days) by Spending Segment

	Non-Local Segments			Local Segments			Non-primary	Total
	Day	Overnight on BLM	Overnight off BLM	Day	Overnight on BLM	Overnight off BLM		
% of BLM Visits	13.1%	43%	21%	12%	6.4%	0%	4.5%	100%
# of Moab Visits, FY2010	164,858	541,136	264,276	151,015	80,541	0	56,631	1,258,456

Note: The segment percentages are calculated using the NVUM Moab Field Office report. Bill Stevens (Moab Field Office) was contacted to verify the validity of assumptions made.

Spending profiles for the non-local day use and non-local overnight use segments are shown in Table 2. The data do not provide the capacity to split between non-local visitors staying overnight on BLM land versus off BLM land.

Total visitor spending is derived by multiplying number of visits with spending per visit for each spending segment. The data were converted from a per-party basis to a per-visitor basis.

The results show, for example, that a typical non-local overnight visitor to BLM lands in Grand County spends, per trip, $61.64 for lodging, $8.76 in camping fees, $44.49 in bars and restaurants, etc.

Table 2. Spending Profiles by Spending Segment per Trip (2010 dollars)

	Per Visitor ($)		Per Party ($)	
	Non-Local Day Use	Non-Local Overnight	Non-Local Day Use	Non-Local Overnight
Motel, lodge, cabin or B&B	0.00	61.64	0.00	150.05
Camping fees	0.00	8.76	0.00	20.74
Restaurants & Bars	2.50	44.49	4.58	101.76
Grocery Stores	5.16	20.47	10.32	44.73
Gasoline/oil	1.37	38.27	2.58	84.40
Local transportation	0.00	6.91	0.00	21.18
Entry, parking or use fees	4.37	10.71	8.74	42.64
Recreation, guides, or entertainment fees	0.00	4.21	0.00	10.01
Sporting goods	0.00	1.81	0.00	3.97
Souvenirs, clothing or other expenses	3.24	9.55	5.32	23.10
Total Spending	**$16.64**	**$206.82**	**$31.54**	**$502.58**

Note: Spending profiles have been converted from the per-party basis shown in the report to a per-visit basis.

Total Economic Impact of Visitor Spending Related to BLM Moab Field Office Lands

Because of the way industries interact in an economy, a change in the activity of one industry affects activity levels in several other industries. For example, if more visitors come to an area, local businesses will purchase extra labor and supplies to meet the increase in demand for additional services. The income and employment resulting from visitor purchases from local businesses represent the *direct effects* of visitor spending within the economy. Direct effects measure the net amount of spending that stays in the local economy after the first round of spending. The amount that does not stay in the local economy is termed a leakage.

In order to increase supplies to local businesses, input suppliers must also increase their purchases of inputs from other industries. The income and employment resulting from these secondary purchases by input suppliers are the *indirect effects* of visitor spending within the county. These are impact of local industries buying goods and services from other local industries (e.g., a restaurant buying food from local farms, or a hotel buying cleaning supplies at a local store).

The input supplier's new employees use their incomes to purchase goods and services. The resulting increased economic activity from new employee income is the *induced effect* of visitor spending. These are the effects of household spending patterns causing further local economic activity (e.g., a bike shop employee buying food at the local grocery store).

The indirect and induced effects are known as the *secondary effects* of visitor spending. Multipliers capture the size of the secondary effects, usually as a ratio of total effects to direct effects. The sums of the direct and secondary effects describe the total economic impact of visitor spending in the local economy.

Economic input-output models are commonly used to determine how economic sectors will and will not be affected by demographic, economic, and policy changes. Economic impacts of visitor spending were estimated using IMPLAN, a computerized database and modeling system that provides a regional input-output analysis of economic activity in terms of 10 industrial groups involving more than four hundred economic sectors. The IMPLAN model draws upon data collected by the Minnesota IMPLAN Group from multiple federal and state sources including the Bureau of Economic Analysis, Bureau of Labor Statistics, and the U.S. Census Bureau.[71]

For this analysis, 2010 IMPLAN Grand County, county-level IMPLAN data were used. IMPLAN reports the Gross Regional Product of Grand County to be $321 million and total employment to be 5,556.[72]

IMPLAN reports regional economic effects for the following categories:

- *Local Output* — represents the change in local sales or revenue.
- *Employment* — represents the change in number of jobs generated in the region from a change in regional output. IMPLAN estimates for employment include both full-time and part-time workers, which are measured in total jobs.
- *Labor Income* — includes employee wages and salaries, including income of sole proprietors and payroll benefits.
- *Value added* — represents total revenues less total costs incurred outside the study area.

Table 3 summarizes the total economic impacts associated with current non-local visitation for the Moab field office. The results are shown in terms of total annual impact and impact per 1,000 visitors.[73] The results are broken down into direct, indirect, induced, and total effects.

- *Direct effects*: the economic impact of non-local visitor spending directly accounts for close to $137 million in local output, 2,062 jobs, and almost $52 million in labor income.

- *Indirect effects*: local industries buying goods and services from other local businesses generates an additional $20 million in local output, 190 jobs, and close to $12 million in labor income annually in the local communities near (within 50 miles) of the field office.

- *Induced effects*: household spending on local businesses generates a further $20 million in output, 194 jobs, and close to $6 million in labor income.

- *Total effect*: the direct and secondary (indirect and induced) effects of spending by non-local visitors to the BLM Field Office lands results in more than $177 million in local output, 2,447 jobs, and more than $64 million in labor income.

Table 3. Economic Impact of Non-Local BLM Visitor Spending to Local Economies, 2010

Total Non-Local		Employment	Labor Income	Value Added	Output
Direct	Per 1,000	2.1	$53,445	$78,729	$140,917
	Annual	**2,062.2**	**$51,856,547**	**$76,388,823**	**$136,727,680**
Indirect	Per 1,000	0.2	$6,534	$11,924	$21,002
	Annual	**190.5**	**$6,340,069**	**$11,569,371**	**$20,377,690**
Induced	Per 1,000	0.2	$6,129	$12,831	$20,587
	Annual	**194.5**	**$5,946,736**	**$12,450,110**	**$19,975,351**
Total	Per 1,000	2.5	$66,109	$103,484	$182,506
	Annual	**2,447.3**	**$64,143,352**	**$100,408,304**	**$177,080,722**

Note: "Annual" = 2010 Total Visitation.

How Do Jobs Related to BLM Visitor Spending in the Moab Area Compare to Overall Employment?

Table 3 shows that expenditures by non-local visitors who spent time on BLM land in Grand County support 2,447 jobs. To put this in perspective, according to the IMPLAN data that were used, there are 5,556 people employed in Grand County.[74] (The U.S. Department of Commerce reports 6,724 people employed in the county in 2007, when the survey was taken. Their estimates include the self-employed.)[75]

Economic Impact by Type of Visitor to the BLM Moab Field Office Lands

The following tables and figures represent the economic effects of the respective recreation categories based on the percentage of non-local visitors participating in each activity. Each recreation category is based on its specific spending profile. The general rule of thumb is a minimum sample size of 30 respondents. For non-motorized water use, nature viewing, biking, and camping, the sample size was below 30. To increase the sample sizes, and make it more plausible to generalize from the sample to the population, Nature Viewing, Wildlife Viewing, Nature Center, Nature Study and Wildlife Center were combined into one group. Mountain Biking and Road Cycling were also combined into one group, as were Camping and Backpacking.

Please note the sample size of some may be more ideal than others. The data consist primarily of overnight visitors, and therefore the impacts above will be heavily weighted toward overnight visitors. The figures below are based on the individual average spending patterns of the respective categories, regardless of whether the visit was overnight. The figures above provide a broad scope, whereas the figures below provide estimates of individual activity impacts.

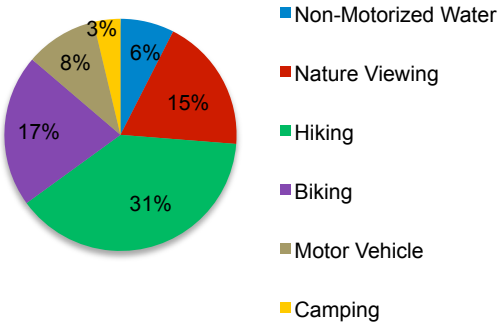
Table 4 shows the estimated number of non-local visitors by type of primary recreation activity. The percentages were calculated by estimating from the survey sample the percentage of non-local visitors by type of primary activity they engaged in, and multiplying those percentages by the BLM's estimate of the total number of visitors to BLM Moab Field Office lands. The data were then trimmed down to just the respondents who provided economic information. It was then sorted by the main activities chosen for the analysis to calculate average spending profiles. Spending profiles were built on both a per-party and per-visitor basis. Only the per-visitor spending profiles were used to calculate total impacts. These spending profiles were loaded into IMPLAN to tell the program, for a given amount spent, how the money would be distributed throughout the local economy.

As Table 4 shows, 80 percent of the participants in the activities listed in the table (non-motorized water recreation, nature viewing, etc.) were non-local. The sample size for non-local visitors participating in these activities, and providing economic data was 174.

To calculate the annual economic impact by type of visitor, we used the spending profile for each type of visitor and the estimate of the number of people participating in each activity per year. For example, there were 302,627 non-local visitors who participated in hiking as their primary activity, and we know from the survey what a typical hiker spends on gas, food, hotels, etc. In this example, we directed IMPLAN to run 302,627 average hiking spending profiles through the Grand County economy to determine the annual impact of hiking.

Table 4. Participation on BLM Moab Field Office Lands by Recreation Activity, 2007

Recreation Activity	% of Non-Local Visitors	# of Non-Local Visitors	Sample Size
Non-Motorized Water	6%	55,499	13
Nature Viewing	15%	144,376	28
Hiking	31%	302,627	58
Biking	17%	163,782	29
Motor Vehicle	8%	81,891	36
Camping	3%	27,750	10
Total	**80%**	**775,925**	**174**



The results of the IMPLAN model, showing the economic impact in terms of employment, labor income, value added and output, by recreation activity, are shown in Figures 1 and 2 and in the tables that follow. The results reflect a combination of two elements: the amount spent by each non-local visitor by type of primary activity, and the volume of user by type. Not surprisingly, the economic impact of hikers is significant given that they are also the largest user group (see Table 4).

Figure 1. Total Economic Impacts in Terms of Jobs Resulting from Expenditures by Non-Local Visitors to BLM Lands, Grand County, Utah, 2007

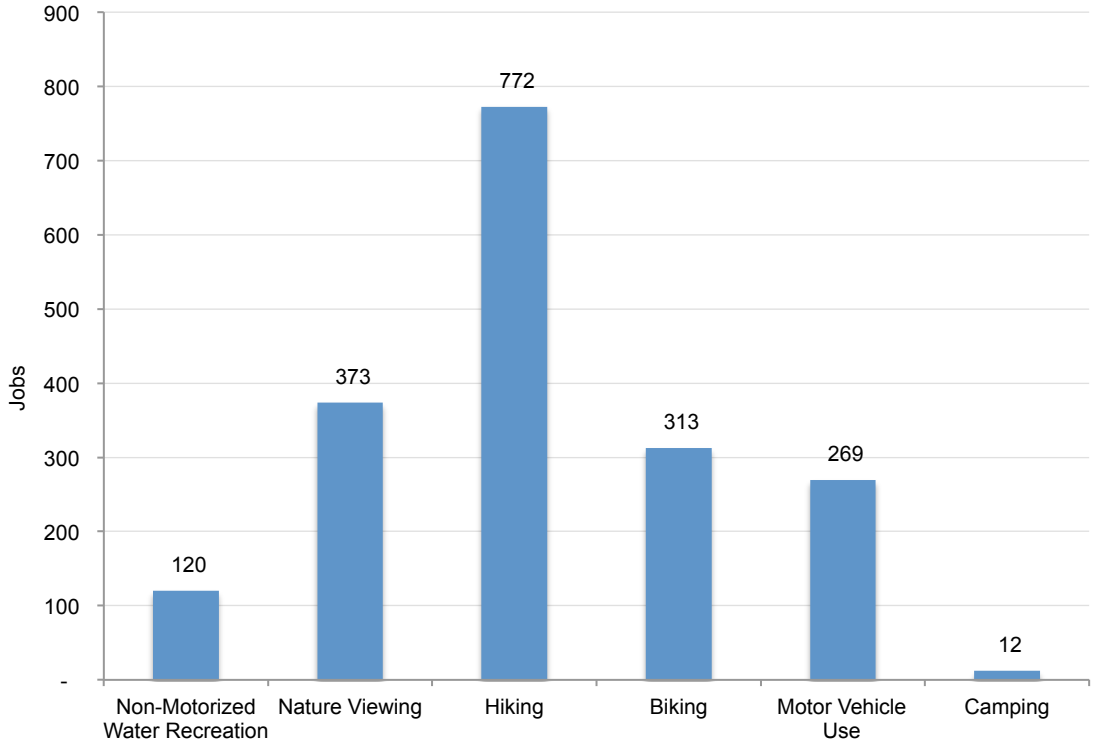


Figure 2. Total Economic Impacts in Terms of Labor Income, Value Added and Total Output Resulting from Expenditures by Non-Local Visitors to BLM Lands, Grand County, Utah, 2007

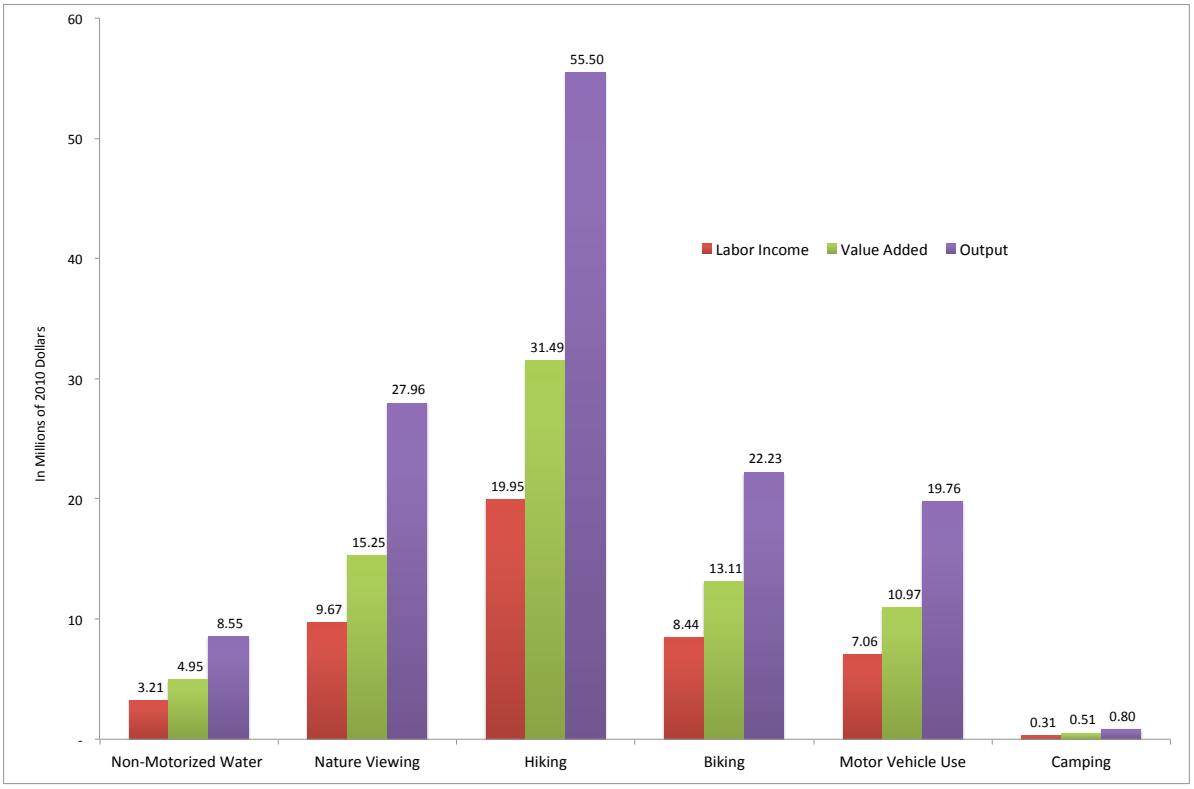


Table 5. Economic Impact Resulting from Expenditures on BLM Lands in Grand County, Utah by Non-Local Visitors Whose Primary Activity was Non-Motorized Water Recreation, 2007

Non-Motorized Water Recreation		Employment	Labor Income	Value Added	Output
Direct	Per 1,000	1.8	$47,974	$69,613	$122,356
	Annual	**101.4**	**$2,609,467**	**$3,786,526**	**$6,600,682**
Indirect	Per 1,000	0.2	$5,596	$9,945	$17,752
	Annual	**9.1**	**$304,384**	**$540,943**	**$958,508**
Induced	Per 1,000	0.2	$5,431	$11,366	$18,139
	Annual	**9.7**	**$295,439**	**$618,275**	**$992,262**
Total	Per 1,000	2.2	$59,001	$90,925	$158,247
	Annual	**120.2**	**$3,209,291**	**$4,945,744**	**$8,551,451**

Table 6. Economic Impact Resulting from Expenditures on BLM Lands in Grand County, Utah by Non-Local Visitors Whose Primary Activity was Nature Viewing, 2007

Nature Viewing		Employment	Labor Income	Value Added	Output
Direct	Per 1,000	2.2	$53,121	$78,819	$148,343
	Annual	**310.6**	**$7,669,408**	**$11,379,556**	**$21,417,231**
Indirect	Per 1,000	0.2	$7,694	$13,812	$24,530
	Annual	**33.5**	**$1,110,777**	**$1,994,129**	**$3,541,606**
Induced	Per 1,000	0.2	$6,195	$12,967	$20,807
	Annual	**29.3**	**$894,382**	**$1,872,168**	**$3,004,108**
Total	Per 1,000	2.6	$67,009	$105,598	$193,681
	Annual	**373.4**	**$9,674,567**	**$15,245,854**	**$27,962,946**

Note: Nature Viewing includes Nature Viewing, Wildlife Viewing, Nature Study, Nature Center visits and Historic Site visits.

Table 7. Economic Impact Resulting from Expenditures on BLM Lands in Grand County, Utah by Non-Local Visitors Whose Primary Activity was Hiking, 2007

Hiking		Employment	Labor Income	Value Added	Output
Direct	Per 1,000	2.2	$53,325	$79,307	$141,869
	Annual	**652.7**	**$16,137,472**	**$24,000,403**	**$42,933,472**
Indirect	Per 1,000	0.2	$6,494	$11,962	$21,029
	Annual	**59.2**	**$1,965,360**	**$3,620,146**	**$6,364,019**
Induced	Per 1,000	0.2	$6,103	$12,776	$20,499
	Annual	**60.4**	**$1,846,951**	**$3,866,466**	**$6,203,829**
Total	Per 1,000	2.6	$65,922	$104,045	$183,398
	Annual	**772.3**	**$19,949,783**	**$31,487,015**	**$55,501,320**

Table 8. Economic Impact Resulting from Expenditures on BLM Lands in Grand County, Utah by Non-Local Visitors Whose Primary Activity was Biking, 2007

Biking		Employment	Labor Income	Value Added	Output
Direct	Per 1,000	1.6	$42,318	$61,866	$105,363
	Annual	**265**	**$6,930,990**	**$10,132,521**	**$17,256,632**
Indirect	Per 1,000	0.1	$4,438	$8,136	$14,253
	Annual	**21.7**	**$726,823**	**$1,332,452**	**$2,334,326**
Induced	Per 1,000	0.2	$4,794	$10,038	$16,103
	Annual	**25.7**	**$785,133**	**$1,644,051**	**$2,637,447**
Total	Per 1,000	1.9	$51,550	$80,039	$135,719
	Annual	**312.5**	**$8,442,947**	**$13,109,024**	**$22,228,405**

Note: Biking includes Road Cycling and Mountain Biking.

Table 9. Economic Impact Resulting from Expenditures on BLM Lands in Grand County, Utah by Non-Local Visitors Whose Primary Activity was Motor Vehicle Use, 2007

Motor Vehicle Use		Employment	Labor Income	Value Added	Output
Direct	Per 1,000	2.8	$69,339	$101,039	$185,882
	Annual	**226.1**	**$5,678,246**	**$8,274,170**	**$15,222,032**
Indirect	Per 1,000	0.3	$8,846	$16,175	$28,473
	Annual	**21.8**	**$724,412**	**$1,324,620**	**$2,331,699**
Induced	Per 1,000	0.3	$8,025	$16,805	$26,958
	Annual	**21.5**	**$657,181**	**$1,376,205**	**$2,207,669**
Total	Per 1,000	3.3	$86,210	$134,019	$241,313
	Annual	**269.4**	**$7,059,840**	**$10,974,994**	**$19,761,400**

Note: Motor Vehicle Use includes Driving for Pleasure, Off-highway Vehicles and 4WD Recreation.

Table 10. Economic Impact Resulting from Expenditures on BLM Lands in Grand County, Utah by Non-Local Visitors Whose Primary Activity was Camping, 2007

Camping		Employment	Labor Income	Value Added	Output
Direct	Per 1,000	0.4	$9,502	$14,695	$22,654
	Annual	**10.6**	**$263,673**	**$407,786**	**$628,654**
Indirect	Per 1,000	0	$795	$1,509	$2,615
	Annual	**0.7**	**$22,049**	**$41,862**	**$72,563**
Induced	Per 1,000	0	$1,041	$2,178	$3,496
	Annual	**0.9**	**$28,886**	**$60,442**	**$97,013**
Total	Per 1,000	0.4	$11,337	$18,381	$28,765
	Annual	**12.2**	**$314,608**	**$510,090**	**$798,230**

Note: Camping includes Developed Site, Undeveloped Site and Backpacking.

IX. Appendix C

Profile of Local Government Revenue from Travel and Tourism, and Natural Resources Industries in Grand County, Utah

The travel and tourism, and natural resources industries in Grand County provide a range of fiscal benefits to local governments, including local tax revenue on economic activities, and payments from the federal government based on the value of natural resources extracted from federal lands.

This appendix profiles the sources of local and intergovernmental revenue from travel and tourism, and natural resources industries in the context of all local government revenue in Grand County, Utah.

Local Government in Grand County

Multiple units of local government provide a variety of services within Grand County. The general county government is the most visible, providing administrative, planning, elections, and public safety services, among others. A host of special districts also serve county residents, including the hospital, water, recreation, and transportation districts. Schools are administered by the autonomous Grand County school district, and City of Moab and Castle Valley Town also raise taxes and provide services to city and town residents and businesses.

This report covers all units of local government that receive general property or sales taxes, but excludes business-type activities that are entirely funded by user charges and fees (e.g., the Thompson Special Service District).

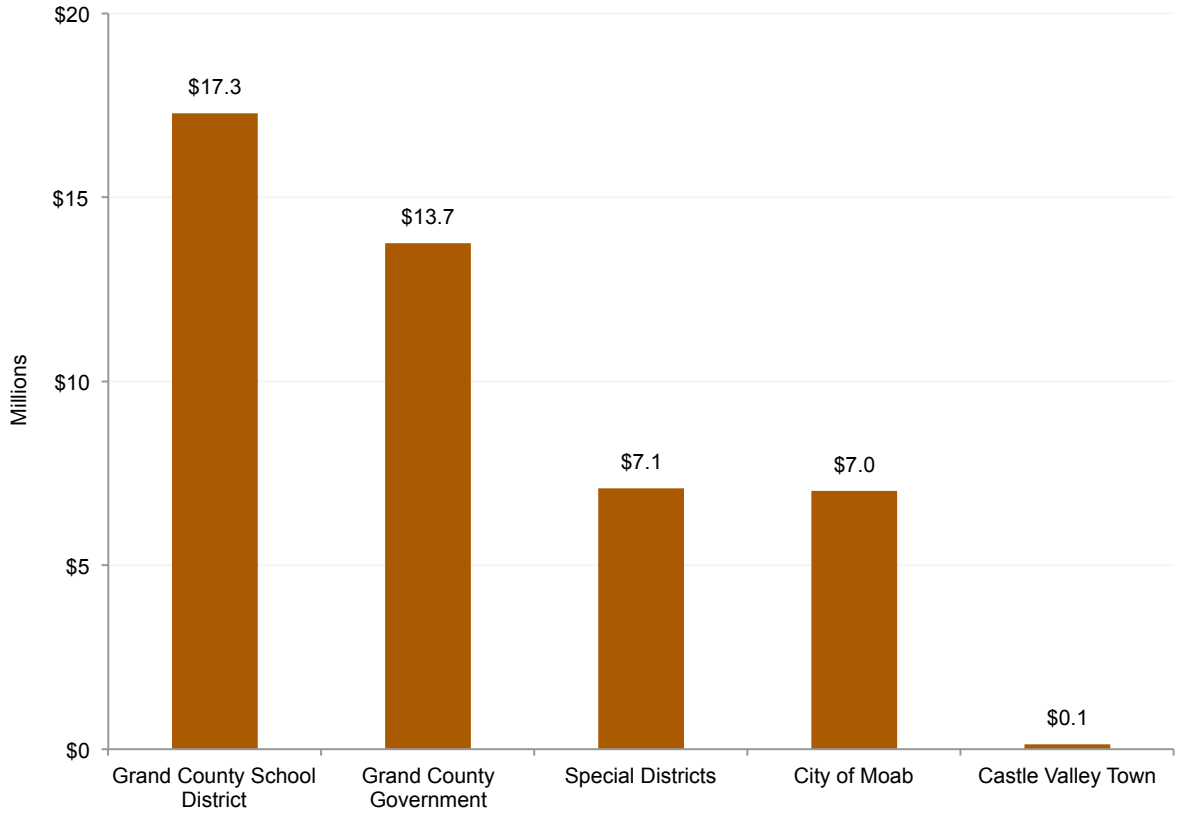
The largest local government in the county, in terms of revenue collections, is the Grand County school district (38.2% of all revenue collections by local governments), followed by the general county government (30.4% of all revenue collections by local governments). The Castle Valley Fire District is the smallest unit of local government in terms of revenue collections with $56,000 in 2009 (0.1% of all revenue collections by local governments).[76]

Total Revenue (in thousands) by Local Government, Grand County, Utah, FY 2009

Local Government	2009 Revenue	Percent of Total
Grand County School District	17,289	38.2%
Grand County Government	13,746	30.4%
City of Moab	7,024	15.5%
Canyonlands Health Care District	5,414	12.0%
Recreation District	892	2.0%
Transportation District	272	0.6%
Cemetery Maintenance District	200	0.4%
Water District	172	0.4%
Castle Valley Town	140	0.3%
Water Conservancy District	80	0.2%
Castle Valley Fire District	58	0.1%
Total	**45,287**	**100%**

Source: Local Government Audited Financial Statements. FY 2009. Statement of Revenues, Expenditures, and Changes in Fund Balances. Office of the Utah State Auditor, Local Governments' Financial Reports.

Total Revenue by Local Government, Grand County, Utah, FY 2009



Source: Local Government Audited Financial Statements. FY 2009. Statement of Revenues, Expenditures, and Changes in Fund Balances. Office of the Utah State Auditor, Local Governments' Financial Reports.

Sources of Local Government Revenue

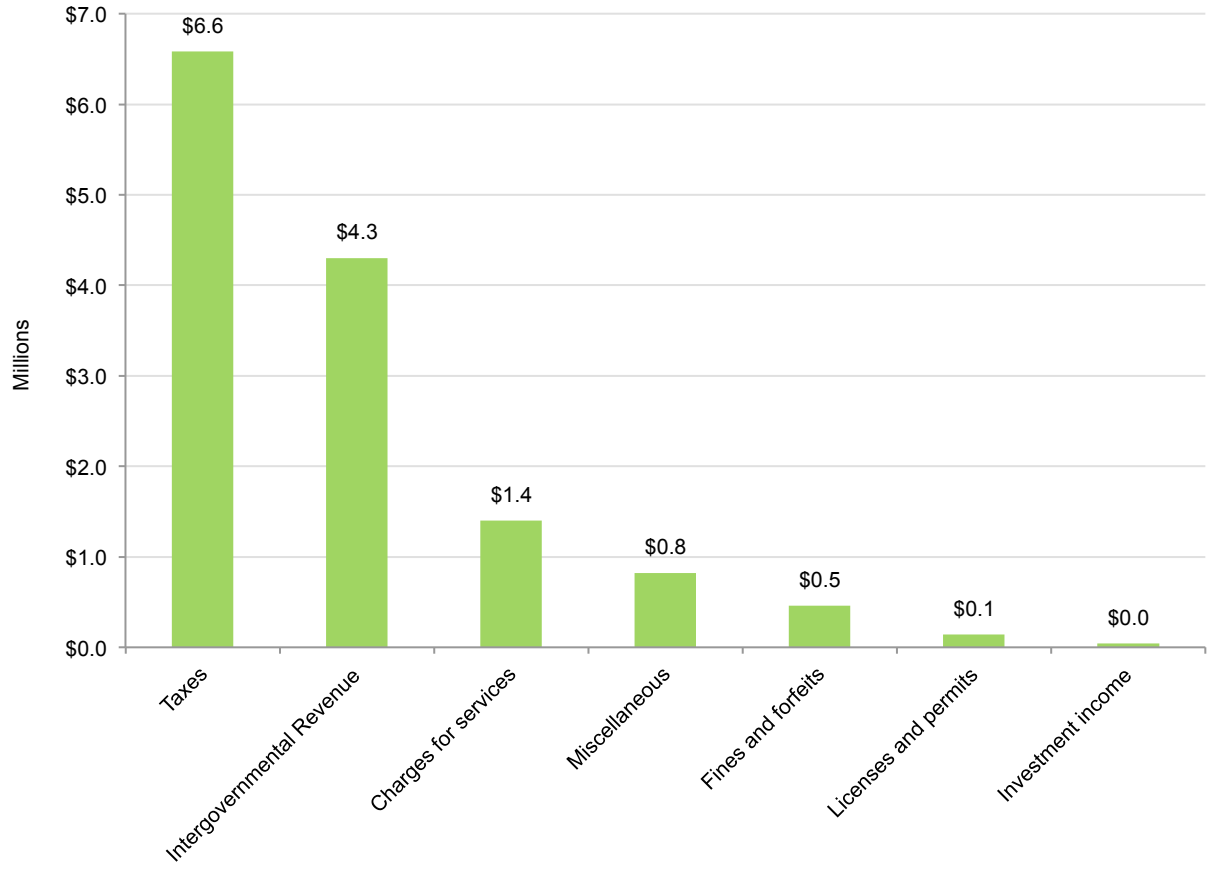
Local governments raise money primarily from local sources including property taxes, sales taxes, and user fees and charges. For example, 69 percent of the county government's revenue is from local sources, with the rest coming from state and federal grants and assistance (intergovernmental revenue).[77]

Grand County Government Revenue Sources, 2004-2009 (in thousands, 2010 dollars)

	2004	2005	2006	2007	2008	2009
Taxes	$4,601	$5,055	$5,693	$5,997	$6,891	$6,583
Licenses and permits	$161	$224	$168	$244	$175	$142
Intergovernmental revenue	$4,016	$4,266	$6,206	$3,877	$4,130	$4,300
Charges for services	$1,156	$1,253	$1,341	$1,801	$1,400	$1,398
Fines and forfeits	$534	$585	$584	$611	$644	$462
Investment income	$64	$206	$247	$554	$396	$40
Miscellaneous	$337	$1,212	$707	$596	$426	$821
Total revenues	$10,869	$12,802	$14,948	$13,679	$14,061	$13,746

Source: Grand County, Utah Audited Annual Financial Statements, FY ending December 31, 2004-2009 Statement of Revenues, Expenditures, and Changes in Fund Balances for all governmental funds.

Grand County Government Revenue Sources, FY 2010

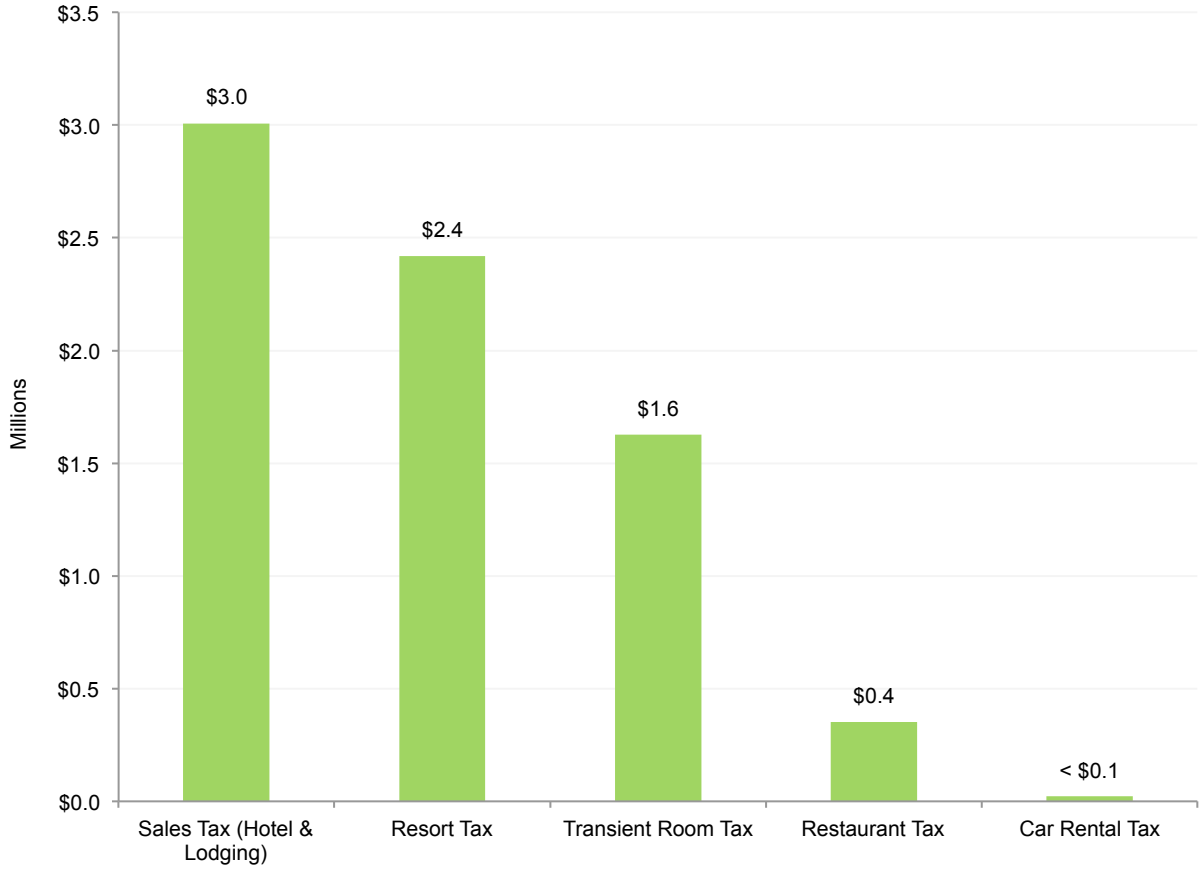


Source: Grand County, Utah Audited Annual Financial Statements, FY ending December 31, 2004-2009. Statement of Revenues, Expenditures, and Changes in Fund Balances for all governmental funds.

Sources of Travel and Tourism Revenue

Specific travel and tourism-related taxes bring in significant revenue to local governments in Grand County, including the resort tax ($2.4 million), transient room tax ($1.6 million), restaurant tax ($352,000), and car rental tax ($22,000). The general sales tax on hotels and lodging is the single largest source of travel and tourism-related revenue ($3 million).[78]

Sources of Travel and Tourism Related Revenue, Grand County, Utah, 2009

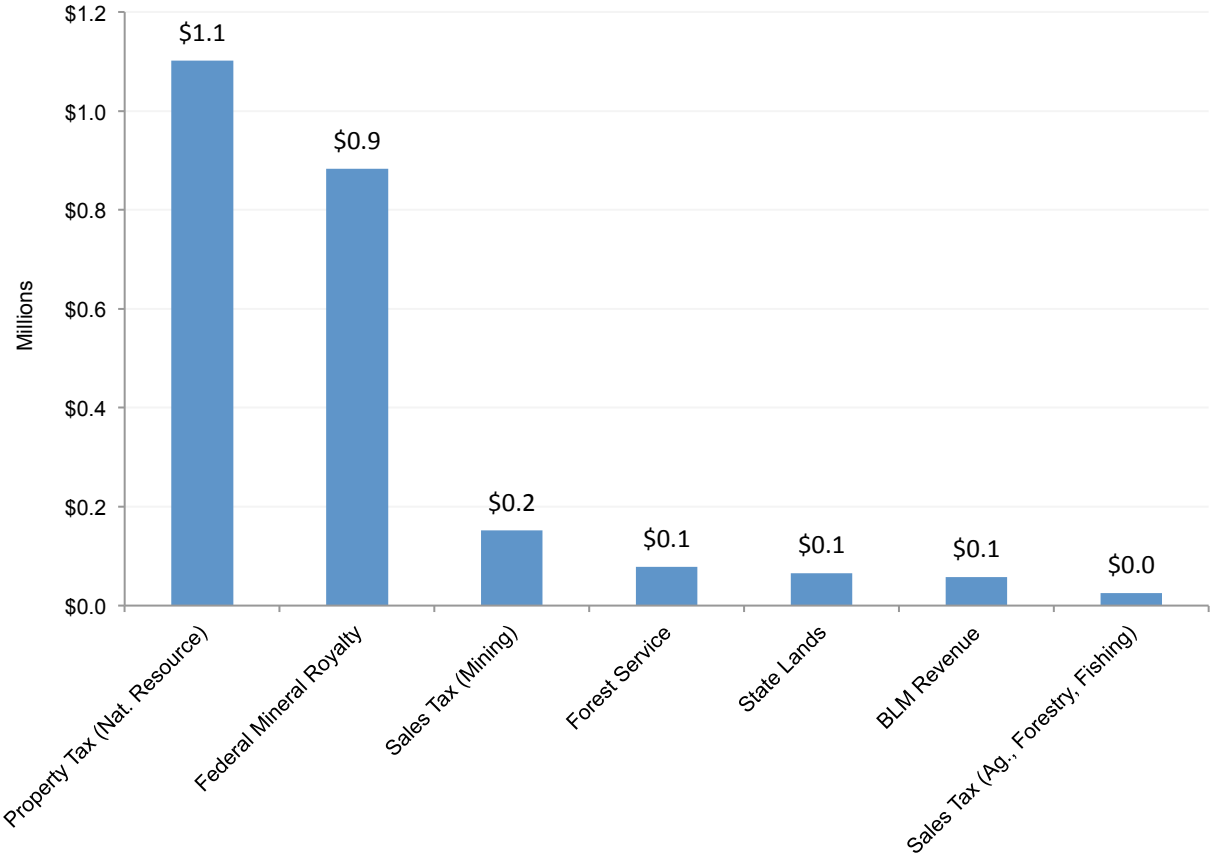


Source: Sales Tax: Utah State Tax Commission. Sales Tax Data, Quarterly Taxable Sales, 2009. Specific Tourism Taxes: Utah Office of Tourism, Research and Planning. Various Tourism Tax Revenues. 2007-2009.

Sources of Natural Resources Revenue

Of the $45 million collected by local governments from all sources in Grand County, about $2.4 million came from natural resources (5% of total revenue), including local property and sales taxes (3% of total revenue), and payments from the federal government based on the value of resources extracted from public lands (2% of total revenue).[79]

Sources of Natural Resource Revenue to State and Local Government, Grand County, Utah, FY 2009



Source: Forest Service: U.S. Department of Agriculture. 2009. Forest Service Final Payment Detail Report ASR 10-3 and ASR 18-1. BLM: U.S. Department of Interior. 2009. Bureau of Land Management. FRD 196. 2009. Federal Mineral Royalties: distributions of federal mineral royalties through the Utah DOT are online for state fiscal year 2001 to 2010.

Federal Mineral Royalties

The Office of Natural Resources Revenue (ONRR) makes distributions of federal mineral royalties directly to the state of Utah. The state elects to pass through a portion of these federal mineral royalties to local governments in the "county of origin" where the mineral extraction takes place. In 2010, Grand County received $448,000 in federal mineral royalties from the State of Utah, although none of these dollars were distributed to the general county government. The transportation and solid waste special districts, component units of the county government for which it is financially responsible, and the Grand County Hospital, an autonomous local entity, each received roughly equal distributions of $149,000.[80]

Grand County created the transportation district as an autonomous unit of government to receive federal mineral royalties and Forest Service payments so that these revenue sharing payments are not counted against the county's PILT entitlement.

Forest Service Secure Rural Schools and Community Self-Determination Act (SRS)
Grand County received $78,000 from the Forest Service through the Secure Rural Schools and Community Self-Determination Act.[81] Half of these dollars are directed to local school districts; the other half can be used to fund county roads.[82]

Since 2001, these payments have been made independent of any land use activity. This will continue for at least another year. SRS will sunset in 2012 unless Congress acts to extend the program. The President has proposed a five-year extension, which would only benefit Grand County for two more years. In FY 2014, Grand County's Forest Service payments would be based on receipts generated by forest activity. Future payments based on receipts will be lower, estimated at less than $4,000 in 2010.[83]

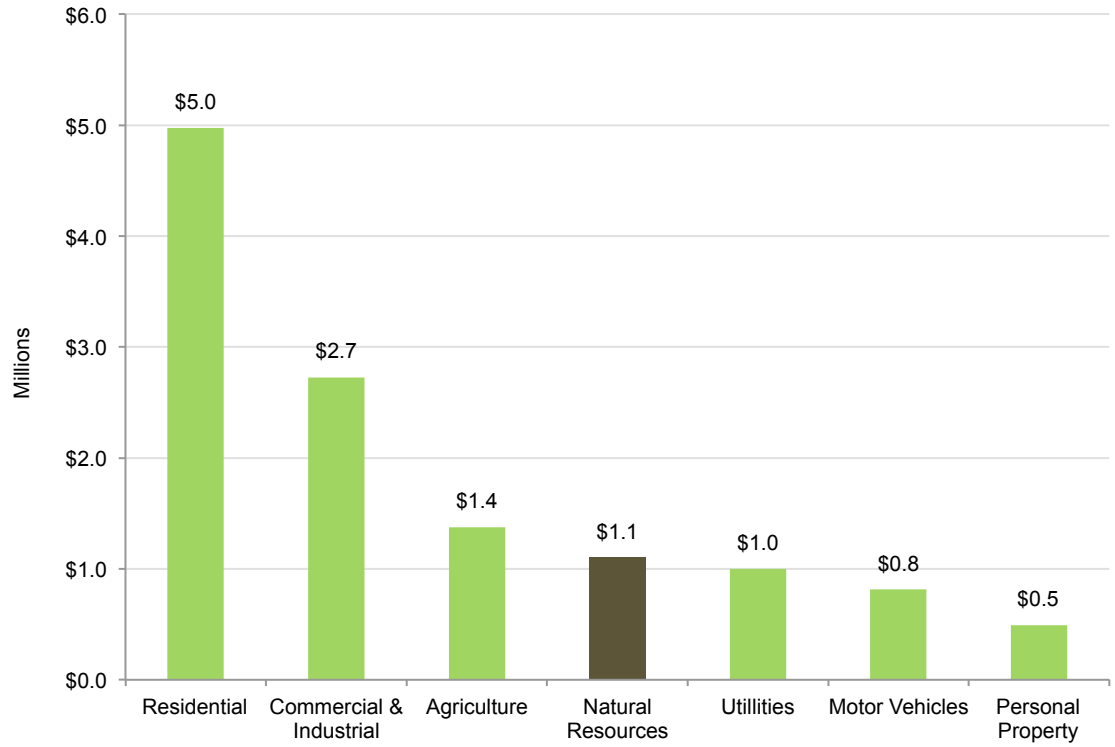
Bureau of Land Management
The BLM made payments of $56,000 in Grand County in FY 2010, $55,000 of which is from the Taylor Grazing Act and restricted to range improvements (e.g., predator control, noxious weed programs) in cooperation with the BLM or livestock organizations. The Grand County government only received $1,383 from the BLM that it can spend on county services. [84]

State School Trust Lands
Lands managed on behalf of Utah's public schools generate revenue from mining (mainly oil and natural gas), land sales, and other uses including grazing and timber. Receipts collected from state lands in Grand County are added to the Public School Trust fund, and redistributed back to schools across the state based on the state's funding formula. In other words, there is a very weak link, if any, between economic activities on state lands in Grand County and increased revenue directly back to schools.

The state began compensating counties for state lands that are exchanged or purchased in counties by making payments in lieu of taxes. In 2009, Grand County received $65,000 dollars directly from the state as compensation for state lands within the county's borders.

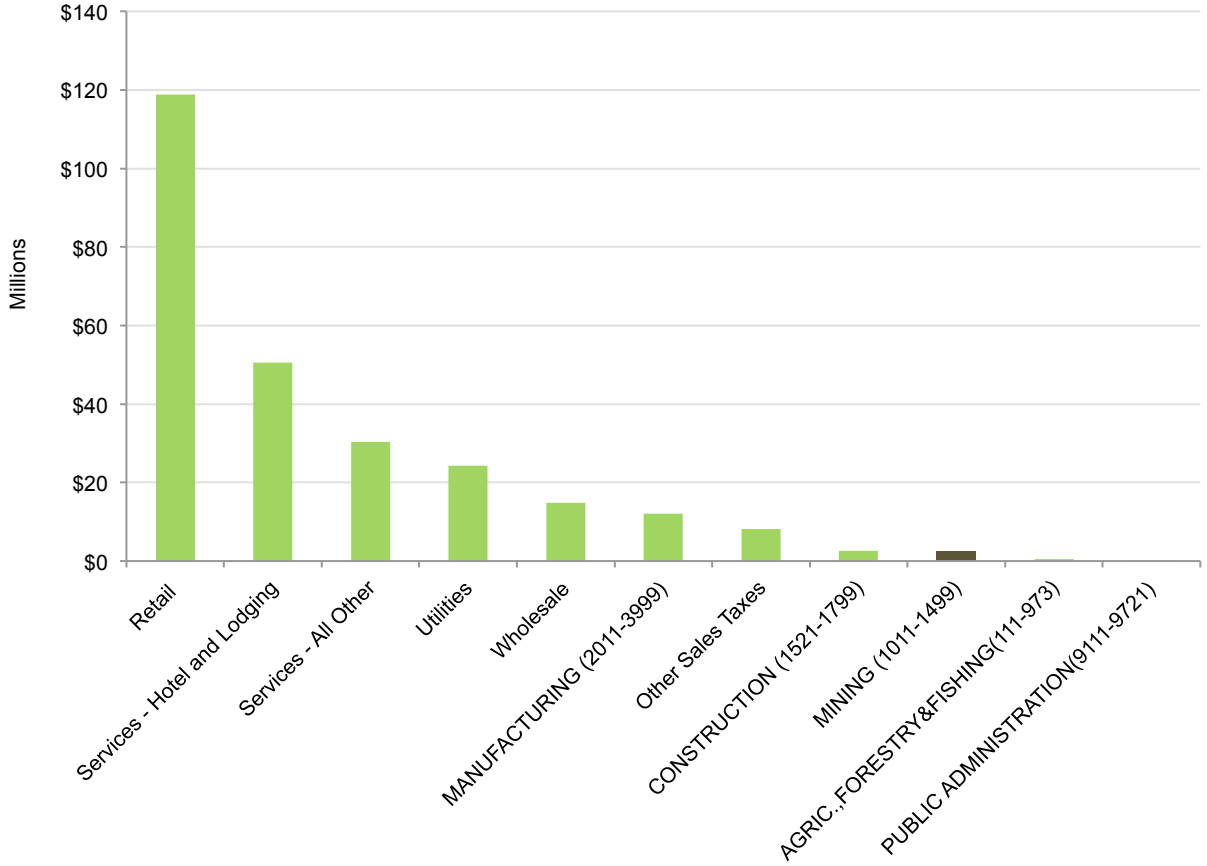
Local Taxation of Public Land Activities
Natural resources and mining account for nine percent of all property taxes and one percent of total sales taxes in Grand County. In sum, taxes on minerals and mining activities account for three percent of total local revenue collected by the county government.[85]

Property Tax Collections by Property Class for All Local Governments, Grand County, Utah, 2010.



Source: Property Tax: Utah State Tax Commission. Property Tax Division. Annual Statistical Report, 2009.

Gross Taxable Sales by Industry Sector (SIC), Grand County, Utah, 2009



Source: Sales Tax: Utah State Tax Commission. Sales Tax Data, Quarterly Taxable Sales, 2009.

In summary, local governments in Grand County rely chiefly on general property and sales taxes, and charges and fees on service users for revenue. (Grand County collects 69 percent of its revenue locally, while 31 percent comes from state and federal sources.)

Local revenue from extracting natural resources (5% of total revenue) is smaller than taxes generated from travel and tourism industries (16% of local taxation), which generate three times more taxes than natural resources.

X. References

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[19] See: http://www.grandcountyutah.net/about.htm.
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[21] U.S. Department of Commerce. 2010. Census Bureau, County Business Patterns, Washington, D.C.
[22] Ibid.
[23] National Park Service: http://www.nps.gov/legacy/mission.html.
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[66] The BLM defines a visit as lasting any period of time, from less than a day to two weeks for example. Conversation with Bill Stevens, Moab Field Office, BLM. Moab, Utah.

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[70] Ninety percent of those surveyed were non-local.

[71] For a description of the IMPLAN model, see Olson, D., and S. Lindall, 1999, IMPLAN professional software, analysis and data guide: Minnesota IMPLAN Group, Inc.

[72] The latest version of IMPLAN uses 2009 trade flow data; outputs were adjusted (inflated) to 2010 dollars. Gross Regional Product is the market value of the goods and services produced by labor and property located within the borders of the analysis area.

[73] A "per 1,000 visitors" statistic is useful because it is sometimes difficult to assume a percentage of visitors that might be affected by a certain policy action. For example, it may be easier for local managers to say, "If we take this proposed action, it will decrease accessibility to this area, and reduce visitation by X,000 visitors per year."
[74] Non-local visitors likely also visited other lands while in Grand County, including National Park, Forest Service and/or state lands and therefore the impacts of their expenditures may not be attributed exclusively to BLM lands; i.e., at least a portion could be attributed to other public lands.
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