

The Economic Impacts of the Crow Canyon Archaeological Center and the Cultural Resources Industry on Montezuma County, Colorado



Prepared by

**Donna K. Graves
Information Services
P.O. Box 2085
Durango, CO 81301
Phone 970-385-4897
Email dkgis@frontier.net**

**Final Report
August 30, 2012**

Table of Contents

Executive Summary..... 1
Background 2
Crow Canyon Economic Impacts..... 3
Cultural Resources as an Industry..... 4
Visitor Spending 5

This report was partially funded by the Southwest Colorado Small Business Development Center (SBDC) at Ft. Lewis College and the Region 9 Economic Development District of Southwest Colorado.

Executive Summary

The Crow Canyon Archaeological Center, located in Montezuma County, CO. conducts long-term archaeological research into the ancestral Pueblo Indians of the American Southwest, with a focus on the Mesa Verde region in southwestern Colorado. They teach the public about archaeology, history, and culture through a variety of hands-on experiences.

At the request of Joe Keck, Director of the Southwest Colorado Small Business Development Center (SBDC) I did some preliminary research into the economic contributions and impacts of the center on the Montezuma County economy. At the center's request I have expanded the research to include other players in the "Cultural Resource Industry", an aggregate of public and private entities. I have also made some estimates of the contributions of visitor spending by people visiting Crow Canyon.

To conduct the analysis, payroll and expenditure data were collected directly from Deborah Gangloff – CEO of Crow Canyon. This information was supplemented by data provided by the Colorado State Demographers office regarding sector employment and labor income. The IMPLAN[®] modeling system was used to provide estimates of direct and indirect economic impacts. These impacts are based on employment numbers drawn from 2010 and calculated in 2012 dollars.

There are 50 people employed at the center, and a \$2.6 million payroll. Jobs at the center provide a median wage (including benefits) of about \$37,000. IMPLAN[®] estimates that the 50 jobs at the center require an additional 23 supporting jobs and provide \$780,000 in addition to the \$2.6 million payroll. This creates a "ripple effect" as these earnings then re-circulate through the local economy.

Impact Type	Labor	Labor Income	Output
Direct Effect	50	\$ 2,600,000	\$ 4,200,000
Indirect Effect	23	\$ 780,000	\$ 1,773,811
Total	73	\$ 3,380,000	\$ 5,973,811

Other impacts, leading to the estimated output of \$5.9 million, are the results of rounds of purchases by businesses and consumers.

The aggregated Cultural Resource Industry, which includes Crow Canyon, provided an estimated 385 jobs, \$13.1 million in wages, and \$29.7 million in total output (production) in Montezuma County in 2010.

Spending by visitors, not including tuition or program costs, to Crow Canyon is estimated conservatively at \$257,000 based on information provided by the center and extrapolated from a recent visitor expenditure survey in Pagosa Springs, a nearby community.

There are also many other benefits that are harder to measure but still significant. For example, the industry is “clean”, in that it does not use up natural resources nor create polluting by-products. It is also sustainable because the focus is on preserving the resource that people come to see.

Background

Founded in 1983, the Crow Canyon Archaeological Center is dedicated to understanding, teaching, and helping to preserve the rich history of the ancestral Pueblo people (also called the Anasazi) of the American Southwest.

The center conducts long-term archaeological research into the ancestral Pueblo Indians of the American Southwest, with a focus on the Mesa Verde region in southwestern Colorado. They teach the public about archaeology, history, and culture through a variety of hands-on experiences, including:

- experiential education programs for children, teens, and teachers; includes field trips, multi-day programs, and professional-development opportunities
- excavation and laboratory programs for adults and families
- online educational resources for teachers, students, and the general public
- travel programs in the American Southwest and around the world.

They also collaborate on a wide variety of initiatives of mutual interest, including research projects, education curricula, and language- and cultural-preservation programs. More information regarding their programs can be seen at <http://www.crowcanyon.org/>.

Crow Canyon Economic Impacts

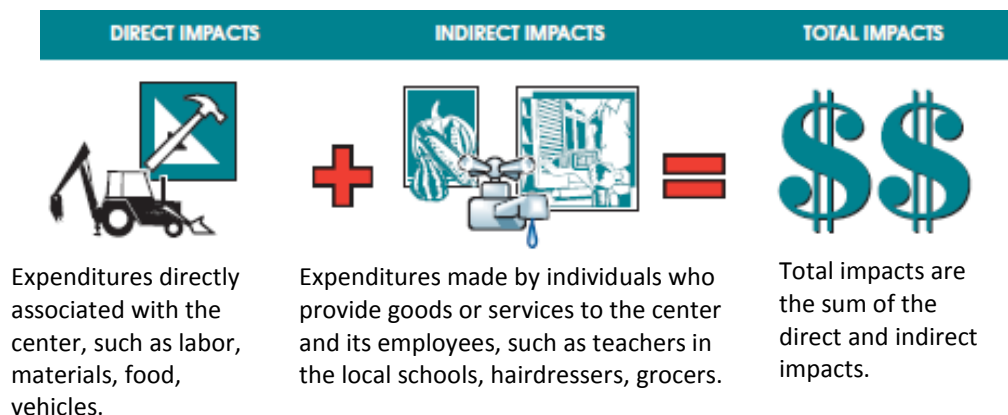
To conduct the analysis, payroll and expenditure data were collected directly from Deborah Gangloff – CEO of Crow Canyon. This information was supplemented by data provided by the Colorado State Demographers office regarding sector employment and labor income. The IMPLAN® modeling system was used to provide estimates of direct and indirect economic impacts. These impacts are based on employment numbers drawn from 2010 and calculated in 2012 dollars.

Crow Canyon has a budget of about \$4.2 million for 2012. As a non-profit (501(3)C) their funds come from a variety of sources. Earned revenue are the “sales” made to students/ participants who come to the campus or take part in other travel programs.

2012 Budget	\$ 4,200,000
Earned Revenue (35%)	\$ 1,470,000
Donations (30%)	\$ 1,260,000
Grants (20%)	\$ 840,000
Endowment (15%)	\$ 630,000

The center employs 50 people; these jobs include administrators, educators, researchers, food service workers, bus drivers and so on. About \$2.6 million in wages and benefits are budgeted for 2012. The median wage at the center is about \$37,000. To put this in perspective, the per capita Income in Montezuma County was \$33,142 in 2010 (Bureau of Economic Analysis).

Using IMPLAN multipliers as a tool we can estimate how many supporting jobs are generated, and how much additional job income is added to the local economy by these supporting jobs. These supporting jobs and wages are known as “indirect” impacts



In IMPLAN® Crow Canyon is found in the Scientific Research and Development industry (IMPLAN sector 376, NAICS 541720) in Montezuma County.

¹ Direct Employment	² Implan Multiplier	Indirect Employment	Total Employment
50	1.47	23	73

The 50 direct jobs require about 23 supporting jobs (i.e. services from doctors or dentists, teachers, clerks in the local supermarket, or waitresses at the local restaurant).

¹ Wages Paid	² Implan Multiplier	Indirect Wages	Total Wages
\$ 2,600,000	1.30	\$ 780,000	\$ 3,380,000

1 Employment and wages reported by Deborah Gangloff- CEO Crow Canyon

2 Type SAM Multiplier, which includes (direct + indirect + induced effects) / direct effects

These indirect jobs generate an additional \$780,000 in labor income with total labor income impacts estimated to be around \$3,380,000. This creates a “ripple effect” as these earnings then re-circulate through the local economy. Other impacts, leading to the estimated output of \$5.9 million, are the results of rounds of purchases by businesses and consumers, although at each turn there is leakage of dollars due to imports from outside of the county.

Impact Type	Labor	Labor Income	Output
Direct Effect	50	\$ 2,600,000	\$ 4,200,000
Indirect Effect	23	\$ 780,000	\$ 1,773,811
Total	73	\$ 3,380,000	\$ 5,973,811

Cultural Resources as an Industry

We can expand the analysis to include other similar businesses and activities that focus on archaeological and cultural resources in the local area. These include area attractions such as Mesa Verde National Park, the Canyon of the Ancients National Monument, Hovenweep National Monument, the Anasazi Heritage Center, the Ute Tribal Park, and the Cortez Cultural Center. It also includes for profit cultural resource firms and other scientific research and development services in the county.

IMPLAN® reports some of these entities in their government sectors, which makes it difficult to segregate impacts. For the purposes of this report I will classify these as museums, historical sites and parks, and aggregate employment numbers gleaned from state resources. Now we can look at these combined activities as an industry called Cultural Resources.

In 2010, the Cultural Resource industry provided an estimated 385 jobs, \$13.1 million in wages, and \$29.7 million in total output in Montezuma County.

Cultural Resources Industry		
Impact Type	Labor	Labor Income
Direct Effect	271	9,852,767
Indirect Effects	114	3,283,229
Total Effect	385	\$13,135,996

The following tables break these down by sector, and by direct and indirect impacts.

Industry Code	Description	Direct Employment	Implan Multiplier	Indirect Employment	Total Employment
NAICS 541720 IMPLAN 376	Scientific research and development services	135	1.47	63	198
NAICS 7121** IMPLAN 406	Museums, historical sites, zoos, and parks	136	1.37	50	186
Cultural Resources Industry Total		271	1.42	114	385

Industry Code	Description	Wages Paid	Implan Multiplier	Indirect Wages	Total Wages
NAICS 541720 IMPLAN 376	Scientific research and development services	\$5,175,635	1.30	\$ 1,552,691	\$6,728,326
NAICS 7121** IMPLAN 406	Museums, historical sites, zoos, and parks	\$4,677,132	1.37	\$ 1,730,539	\$6,407,671
Cultural Resources Industry Total		9,852,767	1.34	\$ 3,283,229	\$13,135,996

Industry Code	Description	Output
NAICS 541720 IMPLAN 376	Scientific research and development services	\$14,689,302
NAICS 7121** IMPLAN 406	Museums, historical sites, zoos, and parks	\$15,028,330
Cultural Resources Industry Total		\$29,717,632

The estimated output of \$29.7 million is the results of rounds of purchases by businesses and consumers.

Visitor Spending

Crow Canyon hosts about 2,000 kids per year in their various programs. While their tuition pays for food, accommodations and program costs, they also bring some spending money. An average of \$20 is spent by each kid at local stores, totaling about \$40,000 in sales. After subtracting the costs of goods – which are assumed to be imported - an estimated \$26,000 continues to re-circulate through the economy.

Crow Canyon also purchases 1,000 room nights at the Holiday Inn in Cortez at an average rate of \$110 per room. We will assume that each room has one guest. Visitor spending studies from nearby Pagosa Springs indicate that each visitor spends an average of \$28 on dining, \$24 on shopping, and \$27 for recreation (*Pagosa Springs Conversion Study*. RRC Associates. January 2009). Total spending in this scenario equals about \$189,000; add \$42,000 in indirect effects and an estimated \$231,000 is being pumped into the local economy.

Looking beyond the direct contributions of Crow Canyon, many of the visitors to Montezuma County and the larger region are drawn by the abundance and quality of cultural and natural resources. A statewide study done in 2002, and updated in 2005, highlights the economic impacts of cultural heritage tourism. The following is drawn from that report (*The Economic Benefits of Historic Preservation in Colorado*. Clarion Associates. July 2005)

"Cultural heritage tourism is traveling to experience the places, artifacts, and activities that authentically represent the stories and people of the past and present. It includes cultural, historic, and natural resources."

Heritage tourists include travelers who incorporate at least one visit to a historic site or landmark among other activities, and also the smaller subset of visitors whose primary reason for traveling is to visit historic places. Heritage tourists tend to have a greater respect for the places they visit and are less likely to have a negative impact on heritage resources. Heritage tourism is an important tool that brings preservation and economic development together.

According to the nationwide research by the Travel Industry Association of America (TIA), in 2002, heritage and cultural travelers consistently stay longer and spend more money than other types of U.S. travelers, averaging \$623 per trip versus \$475 per trip for other U.S. travelers. Average trip spending for U.S. historical/ cultural travel has increased 17 percent from 1996 to 2002. Heritage travelers tend to travel longer: 5.2 nights versus 3.4 nights."

Clearly there are many measurable economic impacts of the Cultural Resources Industry in Montezuma County, and Crow Canyon is a key player in that industry. There are also many other benefits that are harder to measure but still significant. For example, the industry is "clean", in that it does not use up natural resources nor create polluting by-products. It is also sustainable because the focus is on preserving the resource that people come to see.