

# **The Economic Impact on Montezuma County**

## **Four States Ag Expo**



**March 8-11, 2007**

**By**

**Leah Barber, Cody Johnston, Dustin Losey,  
Levi Martinez, Sarah North, and Phil Patrick**

**Prepared Under the Direction of  
Dr. Deborah Walker  
Fort Lewis College  
School of Business Administration**

**May 2007**

## *History of the Four Corners Ag Expo*

This year's agricultural exposition makes history with its twenty-fifth anniversary. When the Four Corners Agricultural Exposition was first organized, it consisted of a small number of agriculturally based exhibits. Since then, this bustling enterprise has continued to grow and support its local farmers and ranchers. The 2007 mission statement reads:

“The mission of the Four States Agricultural Exposition is to provide a forum for agricultural producers, suppliers and consumers in the Four Corners Region, that will showcase new agricultural technology, offer innovative ideas, and advance effective production and marketing of traditional, specialized and alternative agricultural products through education, demonstrations and promotion.”

The Four Corners Agricultural Exposition has accomplished its mission by providing a unique setting for local ranchers and farmers to showcase their supplies and latest technologies for the past twenty-five years. The exposition is committed to supporting the local agricultural sector while increasing the revenues in Montezuma County. The following quote from the Agricultural Exposition's web site sums up the informative nature of the event: “Visitors get important information about new agricultural technology, supplies and services through one-on-one contact with exhibitors. For example, of the 103 exhibitors in 2005, 16 were either non-profit organizations or governmental agencies that were at the Ag Expo to provide free information to farmers, ranchers and rural residents.”<sup>1</sup> With the Exposition's ability to market and advertise an array of advantageous goods, their size and popularity has and will continue to grow.

### *Introduction*

With over 150 exhibitors in 2007, the Ag Expo caught the eyes of thousands this year. Due to the size and importance of this event, it has become advantageous to study the structure of its economic impact. The purpose of this study is to determine how much Montezuma County has benefited from the popularity of this year's event. These interests include monetary benefits as well as notoriety for future years to come. By examining the surveys and statistics of both vendors and visitors, we can get a better understanding of the economic impact this event has on the county. It will also give organizers a detailed tool to use in planning for years to come.

This report will include the structure and feedback from the actual surveys compiled during the 2007 exposition. These statistics, which will be examined in detail later, show the amount of money that was spent in the county, as well as the demographics of the visitors. This allows for a functional and accurate way to examine

---

<sup>1</sup> <http://www.fourstateagexpo.com/>

the event. The many benefits of the Ag Expo will be discussed throughout the text in different graphical forms. Comments from vendors are also available for the organizer's use.

## *Demographics & Dollars Spent*

In order to determine the economic impact of the Ag Expo, we must first evaluate the groups that spent money in Montezuma County due to attending the event. Each of the groups participated for different reasons and their expenditures can be reflective of their involvement.

### *The Vendors*

The Ag Expo attracted 131 vendors; 64 were from Montezuma County, 40 were from other parts of Colorado, and 27 were from a state other than Colorado. This study surveyed 87 of the 131 vendors – a more than adequate sample for data collection purposes. The majority (76%) of the vendors surveyed said that they had been to the Ag Expo before. Comments made by the vendors surveyed can be found in Appendix A at the end of this study.

#### *Location of Residence*

The following table (Diagram 1) indicates the location of the vendor's place of residence by state (of the vendors surveyed). The vendors surveyed came from nine different states: Colorado, Idaho, Kansas, Nebraska, New Mexico, North Dakota, Texas, Utah, and Wyoming.

**Diagram 1**  
*Location of Vendors (Surveyed) by State*

Colorado	81.6%
Idaho	1.1%
Kansas	2.3%
Nebraska	1.1%
New Mexico	6.9%
North Dakota	1.2%
Texas	2.3%
Utah	2.3%
Wyoming	1.2%

Most of the vendors who returned our survey were from Colorado (81.6%). The following chart (Diagram 2) shows the location of the Colorado vendor's place of residence by county. The Colorado based vendors were from 11 different counties in: Boulder, Delta, Denver, Dolores, Douglas, La Plata, Larimer, Montezuma, Montrose, Rio Grande, and Weld. Of the vendors surveyed, 69% were from the town of Cortez.

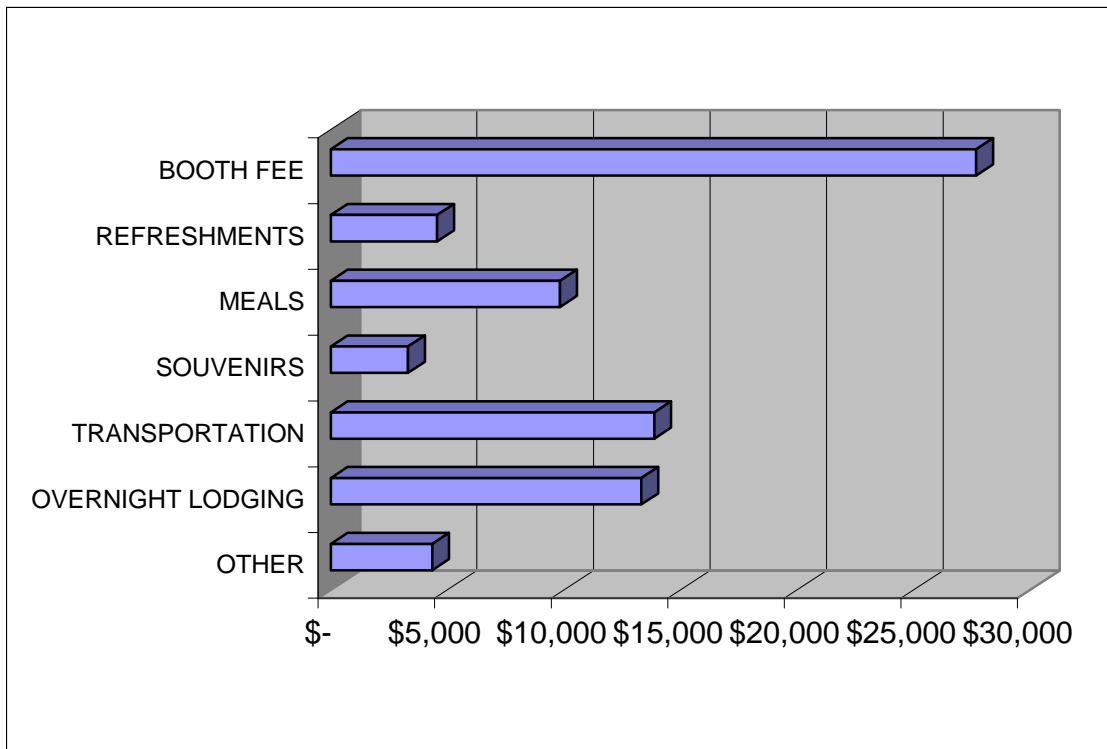
**Diagram 2**  
*Location of Colorado Based Vendors (Surveyed) by County*

Boulder	1.4%
Delta	2.8%
Denver	1.4%
Dolores	4.2%
Douglas	1.4%
La Plata	24%
Larimer	1.4%
Montezuma	56.4%
Montrose	2.8%
Rio Grande	1.4%
Weld	2.8%

***Expenditures***

The largest total expenditure undertaken by the vendors was the booth fee, followed by transportation, and then overnight lodging. Vendor expenditures are shown in Diagram 3.

**Diagram 3**  
*Vendor Expenditures*



## *The Visitors*

### *Location of Residence*

Those who attended the event came mostly from the four corners area (data shown in Diagrams 4 and 5). The vast majority of the visitors were from Colorado (84.57%). Almost all visitors, about 80% surveyed, had been to the Ag Expo before.

**Diagram 4**  
*Origin of Visitors (Surveyed) by State*

Arizona	2.83%
Colorado	84.57%
Georgia	0.77%
Idaho	0.26%
New Mexico	7.97%
Utah	2.06%
Other	1.54%

Because most of the visitors were somewhat local (see Diagram 5), many chose to make the event a day-trip and returned home after attending the event, while only one person surveyed spent money on lodging.

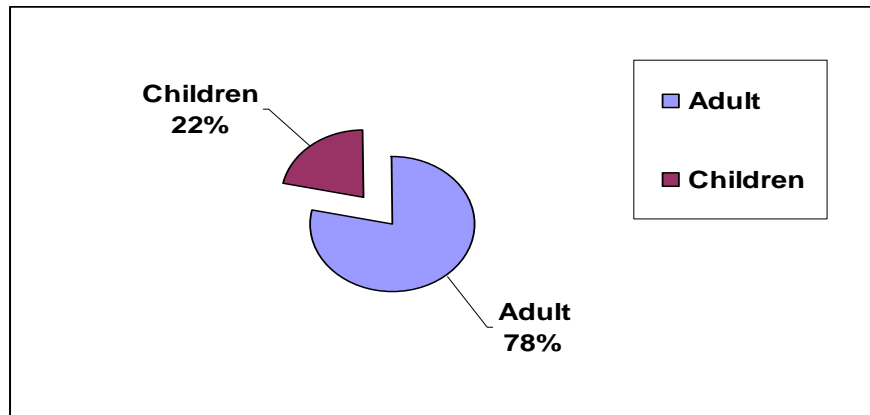
**Diagram 5**  
*Origin of Visitors (Surveyed) by Colorado Town*

Cortez	44%
Dolores	10.5%
Mancos	7.8%
Other	37.7%

*Age*

The Ag Expo attracted both adults and children. Adults comprised the majority of the audience, 78%, and children only 22% (as seen in Diagram 6).

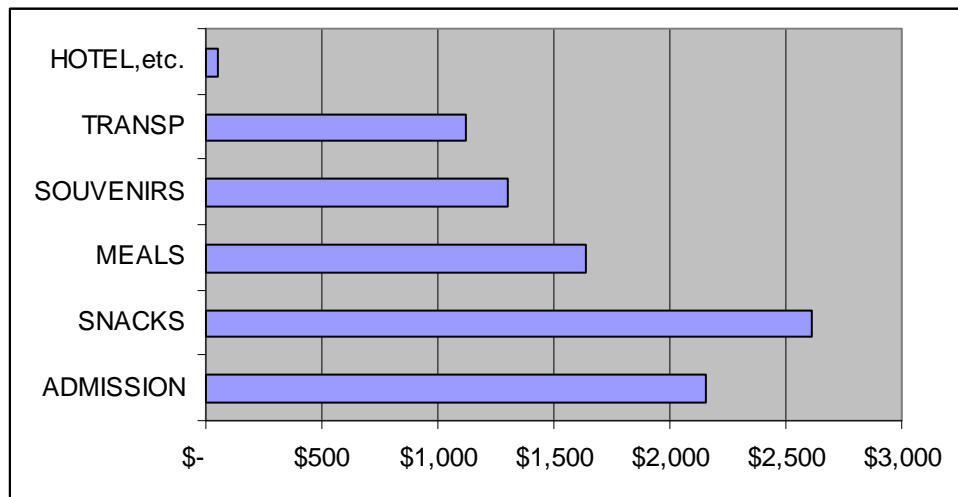
**Diagram 6**  
*Age of Visitors*



*Expenditures*

Most of the spending by the visitors was in the category “other,” which was a catch all for equipment, feed, and other agricultural product purchases. This was followed by snacks and then admission (see Diagram 7). The amount that the surveyed visitors spent in the “other” category was \$159,159.00 (this was removed from Diagram 7 to prevent skew since the amount was so much higher than the others).

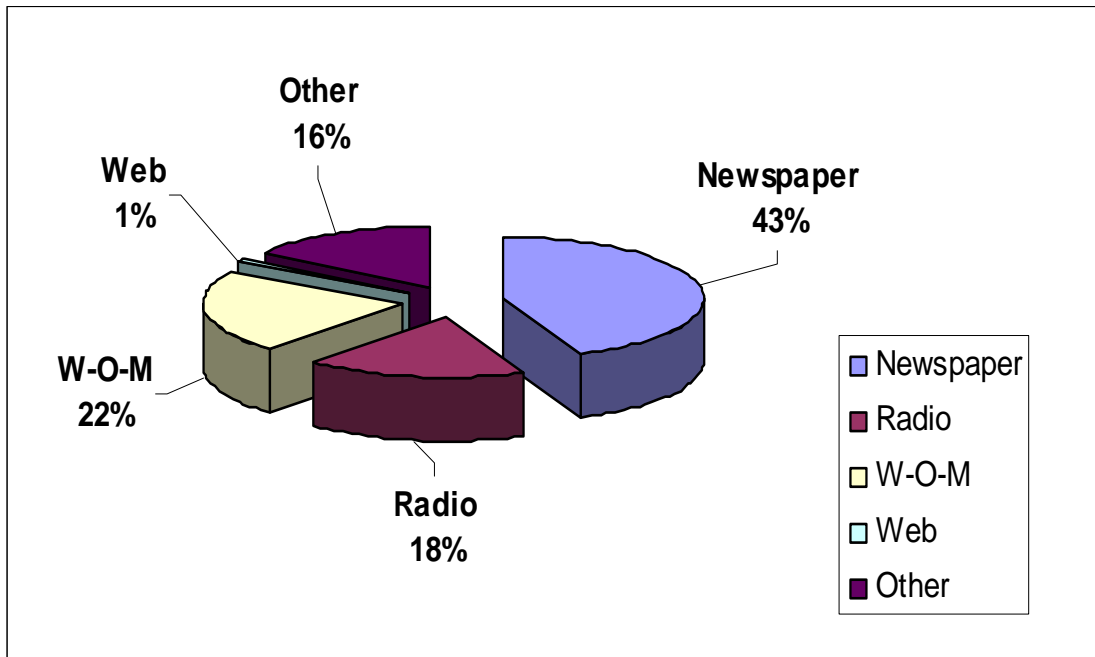
**Diagram 7**  
*Visitor Expenditures*



## *Advertising*

There were different methods used to attract visitors to the Ag Expo. Diagram 8 shows the most effective method of advertising was by newspaper, followed by word-of-mouth.

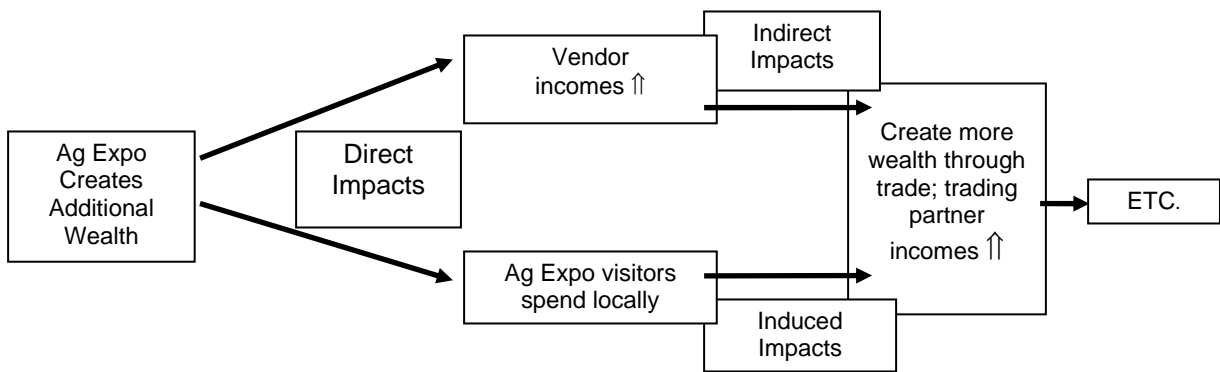
**Diagram 8**  
*Effectiveness of Advertising*



# *The Economic Impact of the Four Corners Ag Expo*

## *Direct, Indirect, and Induced Effects*

Direct economic effects occurred when attendees of the Ag Expo bought goods and services from vendors. These activities increased the income of the vendors. From this direct business activity, there is a “ripple effect” throughout the local economy. These effects are known as indirect and induced impacts that generate income in a local economy. Indirect effects include the increase in income that is created when the vendors, whose incomes increase while selling at the Ag Expo, in turn purchase from others in the local economy. Induced effects are created when the Ag Expo visitors spend income within the local economy on goods, services, taxes, etc.



Economists typically estimate indirect and induced impacts by using a multiplier. Multipliers are used to represent the “ripple effects” of money in the economy as it is traded and traded again, generating wealth and income. For example, a multiplier of 1.5 would mean that for every dollar of payroll that an industry pays to its own employees, an estimated \$0.50 in additional economic value or income is generated in other industries. When determining the multiplier for an area, it is imperative to account for the variety of purchases made by organizations (Ag Expo) within the local region. Due to the rural nature of Montezuma County, the producers may often purchase materials and equipment from outside the region. The multiplier used in this study was obtained from the Bureau of Economic Analysis (BEA) and was calculated for the Southwest Colorado region.<sup>2</sup>

### **The Output Multiplier: 1.6454**

This means that for every dollar spent locally due to the Ag Expo event, an estimated \$0.65 in additional economic income is produced in other industries. The BEA, by using a Regional Input-Output Modeling system (RIMS), has determined industry multipliers

<sup>2</sup> Bureau of Economic Analysis, Regional Input-Output Multipliers, Southwest Colorado Region.

for specific regions of the country. The BEA has found that in rural communities, dollars will circulate within for shorter periods as residents look outside the region for many of their purchases.

### *The Economic Impact*

Table 1 displays the economic impact of the Ag Expo.

**Table 1**  
**Results of Economic Impact Study, Ag Expo**

Event Organizer's Expenditures	<b>\$269,428.00</b>
Visitors' Expenditures (per visitor expenditure of \$89.85 x 10,602 visitors)	<b>\$952,590.00</b>
Vendors' Expenditures (per vendor expenditure of \$160.31 x 131 vendors)	<b>\$21,001.00</b>
Direct and Induced Economic Impact	<b>\$1,243,019.00</b>
Multiplier	<b>1.6454</b>
<b>Total Estimated Economic Impact</b>	<b>\$2,045,263.00</b>

The numbers in Table 1 show that the direct and induced economic impacts of the Ag Expo on the Montezuma County economy were \$1,243,019.00. **Including the multiplier effect from additional spending in the County, the total estimated economic impact of the Ag Expo on Montezuma County is \$2,045,263.00.** This can be considered a conservative estimate, as the researchers conducting this study were very careful to not double count spending or include dollars spent at the Ag Expo that most likely did not stay in Montezuma County (see Assumptions Made in this Study in Appendix B).

Some perspective may be gained by recognizing that this event generated about .31 percent of the annual personal income of Montezuma County, Colorado (based on data in Appendix B). Given that this is just one event held 4 days out of the year, this can be considered a significant economic impact.

### **Conclusion**

The purpose of an economic impact study is to “. . . help target specific markets to increase economic activity within a region, determine the financial feasibility of offering different facilities or programs, and project future profits derived from recreational/ tourism development projects”.<sup>3</sup> This data has been provided through the demographic and spending information of the visitors, vendors, and organizers of the Ag Expo. The Ag Exp provides a significant boost to the Montezuma County economy.

---

<sup>3</sup> Graefe, A. (2001, March). Economic Impact Analysis: A Look at Useful Methods. *Parks & Recreation*. Retrieved on April 20, 2006 from <http://www.findarticles.com>.

## *Appendix A*

### *Visitor Survey Questions*

1. How many people are in your party?
  - Children-22.2%
  - Adults-77.8%
  
2. What is your zip code?
  - 81321-32%
  - 81323-15%
  - 81328-9%
  - Other-44%
  
3. Where are you from?
  - Cortez-44%
  - Mancos-10.5%
  - Durango-7.8%
  - Other-37.7%
  
4. Have you been to the Ag Expo before?
  - Yes-80%
  - No-20%
  
5. How did you hear about the Ag expo?
  - Newspaper-43.7%
  - Word of Mouth-22%
  - Radio-18%
  - Internet-.7%
  - Other-15.6%
  
6. What did you spend your money on at the Ag Expo and as result of the Ag Expo?
  - Admissions-1.3%
  - Snacks-1.6%
  - Meals-1%
  - Souvenirs-.8%
  - Transportation-.7%
  - Overnight Lodging-0%
  - Other-94.6%

## *Vendor Survey Questions*

1. What is your zip code?
  - 81321-31%
  - 81323-5%
  - Other-64%
  
2. Are you a...
  - Vendor-81%
  - Performer-0%
  - Sponsor-5%
  - Instructor-0%
  - Exhibitor-14%
  - Other-0%
  
3. Where are you staying?
  - Cortez-66%
  - Mancos-2%
  - Dolores-4%
  - Durango-4%
  - Other-24%
  
4. How many people are in your party?
  - Adults-86%
  - Children-14%
  
5. Have you been to the Ag Expo before?
  - Yes-76%
  - No-24%
  
6. What did you spend your money on at the Ag Expo and as a result of the Ag Expo?
  - Fee-36%
  - Refreshments-6%
  - Meals-13%
  - Souvenirs-4%
  - Transportation-18%
  - Overnight Lodging-18%
  - Other-5%

## *Vendors' Comments*

- Great event! Awfully dusty in the exhibit halls. Problems with theft overnight on Friday night at our booth.
- Our booth was very good for us and gave us a lot of exposure.
- Best one this year!
- Booths need to have numbers displayed.
- We participate primarily to recruit employers. However it has also produced good exposure for us with the community.
- Best layout ever. Great shuttle service... Need more food vendors.
- Great environment.
- NO MORE SUNDAYS - PLEASE
- OK
- Very well organized this year. We haven't been here exhibiting for many years, but it does seem expensive for the weekend.
- Nice area; lots of questions for me. Include more education - maybe incorporate weed symposium.
- PA system needs to be improved and used in 20 min. intervals.
- Excellent place to advertise and meet community.
- Parking sucks this year.
- Well organized and fun... Too dusty-maybe spray ground each night to help.
- Very good exposure for our business and will be returning next year.
- Attending Thursday was too much! Loud speaker to loud! Couldn't talk to customers!
- Resident
- This is a very important part of our economy and very important for local business - especially new ones.
- Very good; nice area and people; would like to see less dust in Expo area; will be back next year.
- I believe this is our 25th time as exhibitors. We enjoy the Expo and the friendly people.
- A copy machine or office area is needed for vendors throughout show.
- Excellent time
- Third year for NAPA, I think better than in years past; good show
- Great event w/ lots of advertising and exposure. Would like to have a more central booth location next year to increase traffic flow.
- Very good experience & plan on returning year after year
- Call for better weather & wish there were more vendors/exhibitors in animal building
- Good experience; good turnout
- As a vendor, the Expo is our most productive show- we expect \$250,000 and more in sales spin offs throughout the year
- We bring in several vendors from different cities for this show
- Too dusty in main building; band was too loud
- There are 12 people manning our booth - we're all locals
- Great
- It was fun but should have more activities
- Nice people, good traffic Saturday - would recommend deleting Thursday and Sunday from the Expo. Like the wireless internet - Thanks
- Have a camping area with electricity
- Good turnout. 4 days too many - 3 better \*paid for 10x10 - booth only 10x8
- Great Expo
- The Montezuma County Fire Chiefs Assoc. promote fire safety - This is an excellent opportunity. Thanks Dave Cluff.

- Best show in the last 4 years
- The show for me was very good; will come back
- There could be more detailed information to new vendors highlighting things such as table rental. Also, staff should be wearing name tags.
- Worthwhile
- Vendor parking is bad; thefts at booths for Mary Kay and Ryan's. Attendance was great, I made more \$ than before.

## ***Appendix B***

### ***Assumptions Made in this Study:***

- The study conducted 389 surveys of the visitors at the Ag Expo. This accounted for 928 visitors since many of the people surveyed had two or more people in their party. This is considered a statistically significant number of surveys as the number of people that attended the Expo is high enough that statistically it is considered to be infinity. Surveying more people would not have been added additional information to the study.
- The study conducted 87 surveys of the 131 vendors that attended the Ag Expo. This is more than needed to be statistically significant.
- In order to eliminate counting the vendors and additional family members, i.e. children, in the visitor total, we use a factor of 2 for each car that entered the Ag Expo—in place of the state factor of 2.9. Therefore, 5301 cars entered the Ag Expo x 2 per car = 10,602 visitors for this study.
- Total spending by the vendors and the visitors was calculated by determining an average spending per vendor/visitor from those surveyed, and then multiplying that number by the total number of vendors/visitors that attended the Expo.
- Booth fees paid by the vendors are not included in the vendor spending to avoid double counting (since this money was used by the event organizer and, therefore, it is assumed it is counted in the organizer's spending amount).
- Admission paid by the visitors is not included in the visitor spending to avoid double counting (since this money was used by the event organizer and, therefore, it is assumed it is counted in the organizer's spending amount).
- Because 49% of the vendors were from Montezuma County, we assume that 49% of the vendors' revenue from visitor spending will stay in Montezuma county. In addition to this, we assume that all vendors not from Montezuma County (51%) will spend their money elsewhere. Therefore, although the study assumes that 100% of the spending by the visitors on lodging, transportation, meals and souvenirs will be re-spent in Montezuma County (since this spending was most likely not with vendors at the Expo); 49% of the "other" category of spending and 49% of the "snacks" category is included in the visitor spending to avoid counting dollars spent that will not stay in Montezuma County (since this spending was most likely with vendors at the Expo).

### ***Personal Income in Montezuma County, Colorado:***

- Montezuma County 2005 Personal Income (Most recent date available from the Bureau of Economic Analysis) = \$656,732,000.00.
- Economic Impact =  $\$2,045,263/656,732,000 = .31\%$ .