

**Adding Value to Tourism: Exploring ways to  
increase Tourism's Impact on Local Economies:**

Two Case Studies of Ecotourism enterprises

by

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June 2000

**DRAFT**

## INTRODUCTION

This paper addresses the issue of tourism development from a state and local planning perspective. The paper argues that as regions embrace the notion of tourism as a primary industry then it make sense to search for ways to reduce or mitigate some of the more objectionable aspects of the industry. The policy approach suggested here is to begin looking for ways to “add value” to tourism through intensification of tourism experiences and , thereby generating more benefits to communities from the industry. One potential approach studied here is development of a certain model of ecotourism or cultural tourism. Two case studies presented here evaluate the impacts of a small science school in Jackson Hole, Wyoming and a dinosaur museum with a University archeology summer field camp in Thermopolis, Wyoming.

The structure of the paper starts out by defining the policy debate, both pro and con over tourism to motivate the analysis, then short review of the ecotourism literature, and finally then ends with the two case studies.

Tourism has become one of the more important sources growth in many communities across the Rocky Mountain West. Regions that were once dependent upon extractive industries have seen those industries decline or at least not grow due to structural changes within their markets and environmental policies. In their place amenity-based economic growth has occurred for many communities. One aspect of amenity-based growth, tourism has been seen as a savior to small communities that have seen their traditional economic base decline or disappear. Tourism has long been held out as both an important source of new jobs and as an

industry that brings its own set of problems, low wages and seasonality. Service and retail jobs typically include primarily low wage occupations for most workers in those sectors.

Comparisons of tourism versus extractive jobs very often show a negative trade-off between tourism and extractive industries. Robison, et al (1987) In a study of the West Central Highlands of Idaho, estimated that for every logging job lost a community would need to increase tourism jobs by factor of four to regain the lost community income (to say nothing of the lower wages). Similarly Fletcher et al (1995) in a study of the counties of Big Horn National Forest in Northern Wyoming, tourism jobs would have to increase by a factor of three to replace one agricultural job (and agricultural jobs are not known for their high wage structure.)

On the opposite side of the political debate more recently writers have expressed some doubts as to the significance of the negative aspects of an amenity based economy. Rasker (1995; 2000) in two regions of the West, the Columbia Basin in the Pacific Northwest and later the Rocky Mountain west, argued that there has been a structural change in the regional economy away from extractive industries and toward services. Most new jobs are coming in to the region are jobs that are attracted by the amenity base of the region. However that growth has come with high wage services industries whose weekly earnings per worker are as high or higher than goods-producing jobs. In both studies Rasker disposes of the notion that service jobs are necessarily low income, and that the highest growth components of service jobs are professional jobs such as doctors, lawyers, engineers, and accountants. Similarly Powers asserts the same in the Consensus

position by Economists in the Pacific Northwest, Powers (1995). Job decline in traditional extractive industries has been replaced by high tech service workers receiving a wage considerably higher than the former.

The problem, however, with both of Rasker's analyses and Powers is one of geography. Do the kind of jobs that are generated in the new economy locate in all communities? While the picture that both authors paint of the larger regions is very likely true, the question of whether it extends to rural communities or the degree that it does remains unanswered. Other economists have criticized this view arguing (among other points) that "rising tides do not lift all ships", Sommers (1996).

The critics argue that many counties in the west don't have the amenities close enough to leverage them into a new growing economic base, and those that do suffer from a low wages characteristic of service and retail sectors. A look at average income per job across counties with different degree of rurality suggests that skepticism to the benefits of amenity-based economies is justified.

The first step in addressing this controversy is to categorize counties in the Rocky Mountain west into different levels of rurality and amenity based. The States include Arizona, New Mexico, Utah, Idaho, Colorado, Wyoming, and Montana. To do this we use the rural urban continuum codes developed by Butler and Beale (1993) and a recent set of indices that attempt to identify level of amenities a county has McGranahan (1999). The number of counties in the sub-sets are presented in Table 1. As one might expect, most of the counties range in the mid to upper level amenity classification and are rural.

**Table 1.** County Classification by Rural Urban Continuum and Amenity Index, Rocky Mountain West.

Rural Urban Continuum <sup>a</sup>	Amenity Index <sup>b</sup>						Grand Total
	7 Fewer 2	3	4	5	6	More 7	
0 Central counties of metro areas of 1 million population or more				5	4		9
1 Fringe counties of metro areas of 1 million population or more				1	1		2
2 Counties in metro areas of 250,000 to 1 million population			2	4	3		9
3 Counties in metro areas of fewer than 250,000 population			4	5	2		11
4 Urban population of 20,000 or more, adjacent to a metro area				4	1	2	7
5 Urban population of 20,000 or more, not adjacent to a metro area			10	8	3		21
6 Urban population of 2,500 to 19,999, adjacent to a metro area			4	10	8		22
7 Urban population of 2,500 to 19,999, not adjacent to a metro area	1	8	31	37	13	1	91
8 Completely rural or fewer than 2,500 urban population, adjacent to a metro area		2	6	9	2	3	22
9 Completely rural or fewer than 2,500 urban population, not adjacent	1	11	23	19	11	4	69
Grand Total	2	21	80	102	48	10	263

<sup>a</sup> Source: Butler, Margaret A., and Calvin L. Beale. "Rural-Urban Continuum Codes for Metro and Nonmetro Counties, 1993". Agriculture and Rural Economy Div. USDA, Staff Report 9425, September 1994.

<sup>b</sup> Source: McGranahan, David. "Natural Amenities Drive Rural Population Change." Food and Rural Economics Division, Economic Research Service, U.S. Department of Agriculture. Agricultural Economic Report No. 781. September 1999.

Calculating 1997 average earnings per job across counties with different degrees of ruralilty, and different amenity levels shows no clear service advantage, especially with non-adjacent counties, Table 2. For the most part average income per job for services is still lower than for manufacturing. One exception to note is a non-adjacent county with population between 2,500 and 20,000, and with very high amenity resources does in fact have a service sector average incomes per jobs that exceed manufacturing. However, this set is composed of one county and cannot be taken as a representative sample.

**Table 2. Average 1996 Annual County Income per Job, Services and Manufacturing, Rocky Mountain West States**

Rural urban Continuum <sup>a</sup>	Amenity Index <sup>b</sup>						
	2	3	4	5	6	7	
<u>Average Income per Job of Services</u>							
0 Central counties of metro areas of 1 million population or more				23,199	21,771		
1 Fringe counties of metro areas of 1 million population or more				16,886	18,852		
2 Counties in metro areas of 250,000 to 1 million population			18,775	17,986	20,987		
3 Counties in metro areas of fewer than 250,000 population			17,146	20,868	17,268		
4 Urban population of 20,000 or more, adjacent to a metro area				17,614	16,277	17,225	
5 Urban population of 20,000 or more, not adjacent to a metro area			16,803	17,590	16,415		
6 Urban population of 2,500 to 19,999, adjacent to a metro area			15,465	14,252	15,156		
7 Urban population of 2,500 to 19,999, not adjacent to a metro area	14,255	12,942	13,501	14,511	15,167	13,132	
8 Completely rural or fewer than 2,500 urban population, adjacent to a metro area		12,118	9,344	11,751	10,717	15,216	
9 Completely rural or fewer than 2,500 urban population, not adjacent	10,582	12,454	11,982	11,338	11,727	13,085	
<u>Average Income per Job of Manufacturing</u>							
0 Central counties of metro areas of 1 million population or more				35,101	39,009		
1 Fringe counties of metro areas of 1 million population or more				32,564	30,340		
2 Counties in metro areas of 250,000 to 1 million population			37,140	34,013	29,373		
3 Counties in metro areas of fewer than 250,000 population			28,786	25,749	31,662		
4 Urban population of 20,000 or more, adjacent to a metro area				24,591	23,993	32,227	
5 Urban population of 20,000 or more, not adjacent to a metro area			27,314	27,109	31,267		
6 Urban population of 2,500 to 19,999, adjacent to a metro area			20,363	25,303	19,318		
7 Urban population of 2,500 to 19,999, not adjacent to a metro area	17,071	21,404	22,594	21,715	24,592	11,764	
8 Completely rural or fewer than 2,500 urban population, adjacent to a metro area		18,126	18,533	19,858	12,068	13,948	
9 Completely rural or fewer than 2,500 urban population, not adjacent	23,359	21,846	20,344	15,840	16,234	18,897	

<sup>a</sup> Source: Butler, Margaret A., and Calvin L. Beale. "Rural-Urban Continuum Codes for Metro and Nonmetro Counties, 1993". Agriculture and Rural Economy Div. USDA, Staff Report 9425, September 1994.

<sup>b</sup> Source: McGranahan, David. "Natural Amenities Drive Rural Population Change." Food and Rural Economics Division, Economic Research Service, U.S. Department of Agriculture. Agricultural Economic Report No. 781. September 1999.

The fiscal impacts, while less studied also suggest problems for tourism compared to other extractive industries. Meyer et al (1998) estimated the fiscal cost of tourism for a small county in Idaho. While the study was not to the point where quantified estimates of costs relative to the fiscal benefits could be estimated, the study nevertheless documented substantial fiscal costs to recreation. On the opposite side. Coupal et al (1999) estimated the positive fiscal impacts to mineral production on public lands to be huge.

The above analysis suggests that low level wage base of tourism and amenity based economies while not necessarily foregone conclusion certainly is a likely outcome for such a development strategy. Increasingly economic developers in communities of all sizes are looking for firms that have both low environmental impacts and an educated workforce. The remainder of this paper is a summary of two case studies of a particular type of ecotourism that may provide just that to communities.

Ecotourism, or nature based tourism is defined by one author as "tourism that consists of traveling to relatively undisturbed or uncontaminated natural areas with the specific objective of studying, admiring, and enjoying the scenery and its wild plants and animals, and any existing cultural manifestation found in the area" Ceballos-Lascurain (1987). Proponents laud ecotourism as a justification for protection of natural areas, Boo (1990). The objective is to appeal to environmentally conscious tourists, Luzar (1995). Ecotourism has been growing in the US and other countries. However, the industry suffers from a fuzziness of definition. Sirakaya, et al (1999) identified 39 different definitions that ranged in

definition like the one above: environmentally friendly and “low impact travel” to a “politically loaded buzzword, being politically correct, a marketing ploy”. While the general definitional fuzziness is or should be a concern of the industry, our purpose in this paper is to discuss one particular facet of ecotourism: the small science or nature based school. These schools offer a curriculum to youth and adult as well as the general amenities of the area.

Such schools offer three advantages over more traditional types of tourism: First, the tourist spends money in the local community the way most tourists spend money: local goods, services, and lodging (though lodging is sometimes part of the deal for some schools.) Second the tourist then spends money to enroll in the local school, which then purchases goods and services, some locally, and employs an educated work force. The wage offered, while not a high wage service sector salary, is not a low wage salary either. Finally, these science schools incur a small environmental impact because of their service base and because they are carefully planned activities when in natural areas as opposed to dispersed backcountry recreation (which sometimes is labeled ecotourism).

# **Case Study No. 1**

## **Economic Impact of the Teton Science School on the Teton County Economy**

### **I. Introduction**

Communities and economic developers have become increasingly selective as to the kind of business attracted or built. More and more communities are looking for firms that attract a well-educated workforce and have a low environmental impact. The purpose of this study is to evaluate the economic impacts of one such industry that has increased substantially in many small communities in the west, Environmental education schools. For this case study the Teton Science School (TSS) is analyzed. It is small but well established environmental school located in Kelly, Wyoming. The school operates year around and attracts participants from third grade to adult, catering to schools and individuals in Teton County as well as outside of the county. The school has two types of programs that relate to its economic impact. First, TSS offers residential programs<sup>1</sup> where school groups and others stay at the school itself in dormitories. Second non-residential programs are also offered where participants find their own accommodations and food. TSS offers a wide variety of programming to youth and adults. The program is also connected with Universities in the region to provide internships for graduate study in environmental education.

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<sup>1</sup>The term residential in this report will be defined as stay on the campus of TSS. The terms local and non-local will be used to define the "residence" of the participant.

The importance of non-Teton County participants is underscored in the participant numbers in Table 3. Out of 8,520 participants, 1,504 (17%) were from other parts in Wyoming, and 3,872 (45%) were from other parts of the United States or the World. The participant figures underscore two important functions for TSS in the community. First the large numbers of local users suggest that residents value the service. So the school provides an important function in the local economy and community. Second, the large numbers of non-local participants also illustrate the contribution of the school to the local economy as a component of economic growth.

**Table 3. Participant Numbers Summary**

	Teton Co.	Rest of Wyo.	United States	World	Total	Participant days
Residential						9,280
Schools	910	454	972		2336	8,532
Other	5	16	40		61	223
Junior High School	5	9	17	1	32	117
Field Ecology						
Field Natural History	2	1	13	1	17	62
High School Field Ecology	0	1	14		15	55
Winter Ecology	1	1	19		21	77
WFR	18	0	11		29	106
WEMT	8	1	21		30	110
Adult Seminars	1019	139	373	0	1531	893
Special Programs	615	237	454	17	1323	6,944
Outreach						8,525
Teacher workshops	11	21	456		488	1,331
Schools	192	476	1215		1883	5,137
Other	222	127	162		511	1,394
TJSS 3/4	82	7	42		131	357
TJSS 5/6	45	11	38		94	256
Backcountry Naturalists	9	3	6		18	49
	3144	1504	3853	19	8520	25,642

**Table 4. Revenue Sources for The Teton Science School**

<b>Category</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>
Tuition	677,365	762,780	790,706
Agency Income	27,927	43,691	92,806
Donations	352,405	642,980	703,851
Investment Income	217,803	192,504	9,468
Sales of assets	9,110	8,034	6,456
Sales and royalties	12,853	11,855	12,781
Other Income	4,567	6,660	7,153
<b>Total</b>	<b>1,304,027</b>	<b>1,670,502</b>	<b>1,625,220</b>

The schools revenues come from tuition from school participants and donations both from Teton County and from outside the county, investment income, and sales, Table 4. Total revenues for the three year period from 1997 to 1999 averaged over \$1.5 million annually.

## **II. Economic Impacts**

To measure the economic role of TSS in the local economy the focus was on income and participants coming from outside the county. This represents the route that dollars entering the local economy. The analysis does not include the benefits that local residents see in patronizing TSS. While this is important, it takes a different approach to evaluate local residents decision to participate. However, the funds generated through donations and through tuition from students from outside the county allow for an expanded programming that may be difficult to finance without.

There are two types of impacts non-local participants have on the local

economy. The first impact is through TSS directly. Employees and purchases ripple through the economy in re-spending as a result of offering programs to participants. Spending occurs both with residential programs (those that stay on the TSS campus) and non-residential programs. Latter spending is adjusted to account for the fact the TSS is not providing food and lodging. A break down of participant days by residential and non-residential programs is provided in Table 5.

The second impact occurs from re-spending by non-residential participants.

**Table 5. Residential and Non-Residential Participation and Participant days -TSS**

	Participants			Total	Participant days
	Teton Co.	Rest of Wyo.	U.S. and World		
Residential Programs	949	483	1,109	2,541	9,280.25
Non-residential programs	2,195	1,021	2,763	5,979	16,361.75
	Percent of Total				
Residential Programs	11.1%	5.7%	13.0%	29.8%	36.2%
Non-residential programs	25.8%	12.0%	32.4%	70.2%	63.8%

These participants spend like tourists in the local economy purchasing food, lodging access into Teton National Park, and other trade goods and services. To estimate these impacts two sources of information were used. First estimates of per day expenditures for summer visitors to Teton National Park of \$89.50 per day was used as a total. Then industry specific expenditures were calculated using information from a visitor expenditure survey done for the county, (Taylor, et al 1995).

**Table 6. Non-local Share of Revenues - TSS**

Type	Dollars
Residential	\$266,571
Non-Residential	\$592,752
Total	\$859,323

The direct and indirect impacts are presented in the next set of tables. Direct impacts are calculated both for non-local participants as residential and non-residential participants based upon the information above Table 7.

**Table 7. Direct Expenditures of Non-Residential, Non-local Participants -TSS**

Expenditure Category	Expenditures by Type			Total
	Non-Residential	Residential	Total	
Agric.	0.00	0.00	0.00	0.00
Ag Serv	0.00	0.00	0.00	0.00
Construction	0.00	0.00	0.00	0.00
Manufacturing	0.00	0.00	0.00	0.00
Transportation/Communication	0.00	0.00	0.00	0.00
Utilities	0.00	0.00	0.00	0.00
Trade	7.6	44,558.5	44,558.5	89,117
Eating/Drinking	14.31	83,219.5	0.00	83,219.5
Lodging	30.43	176,923.4	0.00	176,923.4
FIRE	0.00	0.00	0.00	0.00
Recreational Services	11.04	64,216.6	0.00	64,216.6
Other Services	0.00	0.00	0.00	0.00
Health Serv	0.00	0.00	0.00	0.00
Local Govt	0.00	0.00	0.00	0.00
Other final payments	0.00	0.00	0.00	0.00
Imports	22.5	131,054.4	0.00	131,054.4
Total	86	499,972.4	44,558.5	544,530.9

Tourist related direct impacts are estimated for the non-residential participants are presented in Table 6. Participants spend \$544,531 annually (of which \$131,054 are imported into the County.) Some residential participant spending is assumed to occur in the trade sector, but the rest of the impact is assumed to come from TSS spending totaled in Table 7. Total personal income impacts are presented in Table 8. Total direct first-round expenditures and sales are \$1.3 million annually. This translates to personal income impacts of TSS to over \$602,000 annually. Direct personal income impacts of the TSS on the Teton County economy are \$575,970 including both the school personal income and the tourist personal income. (It is important to note that this is less than the total payment TSS pays out in wages and salaries and benefits. This should be the case since we are only evaluating the impact non-local participants make on the economy.)

Total employment impacts are presented in Table 9. TSS employment is variable over the year so it was assumed that 30 jobs (out of 64 reported in County Business Patterns) were TSS. The direct estimate of 45 in Table 8 also includes estimated tourism related jobs. The estimate followed the approach used by the BEA to estimate a regions full and part-time jobs. The total number of jobs linked to TSS activities is 54. Forty-five jobs are generated directly as a result of TSS and another 10 are generated indirectly through re-spending in the local economy.

**Table 8. Personal Income Impact - TSS**

	Direct	Indirect	Total
Agriculture	5	1,071	1,076
Mining	0	400	400
Construction	0	25,573	25,573
Manufacturing	0	3,453	3,453
Transportation, Communicaiton, and Public Utilities	0	11,286	11,286
Trade	77,769	61,598	139,367
FIRE	0	22,557	22,557
Services	498,142	76,574	574,716
Government	14	3,784	3,798
Other	0	301	301
<b>Total</b>	<b>575,930</b>	<b>206,597</b>	<b>782,527</b>

**Table 9. Employment Impacts - TSS**

	Direct	Indirect	Total
Agriculture	0	0	0
Mining	0	0	0
Construction	0	1	1
Manufacturing	0	0	0
Transportation, Communication, and Public Utilities	0	0	0
Trade	5	3	8
FIRE	0	1	1
Services	40	4	43
Government	0	0	0
Other	0	0	0
<b>Total</b>	<b>45</b>	<b>9</b>	<b>54</b>

**Case Study No. 2**  
***Economic Impact of the Wyoming Dinosaur Center at  
Thermopolis, Wyoming***

**I. INTRODUCTION**

The Wyoming Dinosaur Center at Thermopolis as a part of the Consortium for Paleo-ecological Studies is embarking on a multi-faceted program of education and research initiatives. The initiatives, called the Integrated Geoscience Education Program (IGEP), will teach students and teachers scientific concepts and processes through the use of hands-on, integrated studies in paleoecology, paleontology, geology, and museum technology. Since most of the activities will take place in Thermopolis, Wyoming, IGEP could potentially bring new education and research opportunities, increase local employment and tourism, and offer new cultural amenities to Thermopolis and the surrounding area. Additional staff and infrastructure will be needed in Thermopolis in order to support this program. In addition the Consortium will construct a facility to house students on property owned by the Wyoming Dinosaur Center. This facility will include dormitory-style rooms, kitchen and dining facilities, a computer laboratory, an interactive learning facility, classroom and meeting rooms.

## **PROCEDURES**

The economic impact analysis reported here excludes the construction impacts in the original report. For summary see Taylor and Coupal (2000). The concern here is the long-term economic impacts associated with the operation of the IGEP. These operation impacts include the program-related payroll for staff located in Thermopolis and local expenditures by visitor staying at the dorm facility. This impact is long-term in the sense that it continues on an annual basis as long as the program remains in operation.

Information on construction, equipment, furnishings, and payroll expenditures for IGEP was provided by the Wyoming Dinosaur Center. Estimates of dorm visitor expenditures were developed from a report on 1998 visitor expenditures by Morey & Associates for the Wyoming Business Council. The visitor expenditure figures were based on data for Region 4 in Wyoming, which includes Park, Hot Springs, Washakie, Big Horn, Sheridan, Johnson, Campbell, Crook, and Weston Counties.

The economic impact of the IGEP was estimated through a modified IMPLAN based input-output model for Hot Springs County. IMPLAN is a non-survey based system that can provide models for any county in the nation. It was originally developed by the U.S. Forest Service but is currently maintained by a private sector firm, the Minnesota IMPLAN Group.

## RESULTS

### Direct Expenditures

The IGEP will serve a wide variety of groups ranging from inner city youth to elder hostel participants, college students, schoolteachers and other special groups. This variety makes estimating dorm visitor local expenditures difficult. Some will likely spend very little in Thermopolis while others may spend a substantial amount. The Morey & Associate report indicates that the average daily expenditure per person for individuals staying in hotels or motels in Region 4 was \$82.54 in 1998 (Table 10). This amount seemed rather high for traveling expenditures by the type of visitors staying at a dorm facility. Instead, the average daily expenditure per person for individuals staying in public campgrounds in Region 4 (\$37.42) was used as the basis for dorm visitor expenditure estimates. The public campground expenditure amount was selected because, in a sense, the visitors would be "camping out" in the dorm. The public campground expenditure was modified in three ways. First, based on information from the Wyoming Dinosaur Center, the average lodging rate at the dorm was changed to \$10.00 per night. Secondly, because many of the dorm visitors would not be traveling in individual private vehicles, local gasoline expenditures were reduced by 50 percent. Finally, information from the Wyoming Dinosaur Center indicates that the average visitor pays \$36.31 per day in museum and dig-site fees to the Center. As a result of these modifications the local expenditure per dorm visitor day was estimated to be \$73.86 (Table 10). Assuming 627 dorm visitor days annually, total visitor expenditures for the IGEP are estimated to be about \$46,300 per year.

**Table 10.** Estimated Dorm Visitor Expenditure Per Person Per Day -IGEP

	Per Person Per Day Hotel/ Motel	Per Person Per Day Public Campground	Per Person Per Day Dorm Visitors	@627 Dorm Visitors Days
Lodging	\$28.60	\$6.65	\$10.00	\$6,270
Restaurants	\$19.10	\$6.77	\$6.77	\$4,245
Groceries	\$1.50	\$5.44	\$5.44	\$3,409
Entertainment/Attractions	\$7.44	\$5.07	\$5.07	\$3,179
Outfitters	\$2.35	\$0.00	\$0.00	\$0
Licenses	\$3.19	\$1.15	\$1.15	\$720
Shopping	\$13.01	\$5.92	\$5.92	\$3,711
Gasoline	\$5.86	\$6.42	\$3.21	\$2,014
Local Transportation	\$0.03	\$0.00	\$0.00	\$0
Car Rental	\$1.46	\$0.00	\$0.00	\$0
Dinosaur Center	\$0.00	\$0.00	\$36.31	\$22,766
<b>Total Visitor</b>	<b>\$82.54</b>	<b>\$37.42</b>	<b>\$73.86</b>	<b>\$46,313</b>

Finally, the Wyoming Dinosaur Center estimates the program payroll for IGEP staff located in Thermopolis would be \$171,000. This amount represents the payroll for the equivalent of 7.3 full-time new positions that would be located in Thermopolis. In some cases these full-time equivalent of employment would actually represent several new or expanded existing part-time positions.

**Total Economic Impact**

Table 11 summarizes the long term total economic impact on Hot Springs County from the IGEP. Total economic impact considers not only the effects of the direct expenditures on the county’s economy, but also the secondary impacts associated with the “multiplier effects” resulting from the direct expenditures.

Dorm visitor expenditures generate over \$46,300 (Table 10) which translate to about \$10,600 in direct personal income. Payroll generates directly into \$189,000 of personal income in the county. The two together generate another \$9,600 in secondary impacts, totaling a county - wide personal income impact over \$209,250.

In terms of jobs generated, visitor expenditures and new employees generate a total of 10 jobs in the county. Average earnings per jobs from visitor expenditures would be \$9,366, and average earnings per job from IGEP payroll would be \$22,301.

### **CONCLUDING REMARKS**

Small specialty schools are locating throughout the Rocky mountain west and offer communities a diversified workforce. Both case studies illustrate that certain categories of tourism can potentially generate jobs that are higher than jobs generated through a traditional view of tourism. The Teton Science School of Kelly, Wyoming and the Integrated Geoscience Education Program both hire an educated workforce and at rates above the average service sector wage rate.

**Table 11.** Personal Income and Employment Impacts of the IGEP

Personal Income Impacts				
	Direct Expenditures			Total
	Dorm Visitor Expenditures	Museum Payroll Impacts	Secondary	
Agriculture	0	42	192	234
Mining	0	195	230	425
Construction	0	0	1,364	1,364
Manufacturing	0	35	156	191
TCPU	0	688	1,127	1,816
Trade	2,258	5,047	1,894	9,198
FIRE	0	838	915	1,753
Services	7,565	181,761	3,219	192,545
Government	787	264	488	1,539
Other	0	148	37	185
<b>Total</b>	<b>10,610</b>	<b>189,019</b>	<b>9,621</b>	<b>209,250</b>
Employment Impacts				
	Direct Expenditures			Total
	Dorm Visitor Expenditures	Museum Payroll Impacts	Secondary	
Agriculture	0.0	0.0	0.0	0.0
Mining	0.0	0.0	0.0	0.0
Construction	0.0	0.0	0.0	0.0
Manufacturing	0.0	0.0	0.0	0.0
TCPU	0.0	0.0	0.0	0.0
Trade	0.3	0.5	0.2	0.9
FIRE	0.0	0.0	0.1	0.1
Services	1.2	7.6	0.2	8.9
Government	0.0	0.0	0.0	0.1
Other	0.0	0.0	0.0	0.0
<b>Total</b>	<b>1.4</b>	<b>8.1</b>	<b>0.5</b>	<b>10.1</b>

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