Abstract — This paper examines effects of the transition on the local population from natural resource extraction to destination tourism in three rural communities. The study site, Silver Valley, Idaho, USA, has experienced a shift in the local economy over the last two decades from a predominantly mining and timber economy toward a more diversified economy consisting of summer and winter tourism, diminished mining and timber production, high levels of federal government subsidy, and other government social support services. This longitudinal study presents findings from two surveys separated by nearly two decades on community perceptions of tourism development from the early (exploration / involvement) stages of the tourism lifecycle into the development stage. The surveys monitor residents’ perceived economic, social and environmental impacts of tourism development over a seventeen-year period during the economic transition of three adjacent communities from extraction to tourism.

Index Terms — Longitudinal analysis, New West economy, Rural restructuring, Tourism impacts

1 INTRODUCTION

The fundamental question for this longitudinal study is: Are residents in a historically natural resource-dependent economy willing to reinvent their local economy to one based on year-around tourism development. The study site, Silver Valley, Idaho, USA, has experienced a shift in the local economy over the last two decades from a predominantly mining and timber economy toward a more diversified economy consisting of summer and winter tourism, diminished mining and timber production, high levels of federal government subsidies, and other government social support services. This longitudinal study presents findings from repeated survey work over nearly two decades on community perceptions of tourism development from the early (exploration / involvement) stages of the tourism lifecycle described by Butler [1] into the development stage. The research examines the perceived economic, social and environmental impacts of tourism development to determine change over the seventeen-year period of sampling.

Residents of three communities in close proximity to each other were surveyed at two time periods over a seventeen year timeframe. The goal of the surveys was to assess the ability of resource dependent communities to adapt to and embrace tourism as an alternative mode of economic development. The issue is relevant globally as resource extraction is increasingly mobile and competitive pressure results in many locations losing their comparative advantage in resource extraction.

1.1 The Emergent New West in the American Rocky Mountains

In sharp contrast to their historical dependence on natural resource extraction and development, the contemporary economies of rural communities in the Rocky Mountain West are completing a transition toward more highly diversified economies [2], [3]. Timber harvest, mining, and agricultural production are still in evidence in much of the rural west but at diminished levels. Today, service related employment, non-labour income, retirement spending, and tourism development are increasingly important parts of rural economies [3], [4], [5].

One important component of the economic restructuring is investment in tourism and related infrastructure [4], [6], [7], [8], [9], [10], [11]. In Idaho, the setting for this study, tourism plays a significant role in the state economy. In 2004, over 68,000 jobs related to
tourism contributed almost $3 billion to the state [12].

Communities embark on tourism as an economic development tool for several reasons. For natural resource dependent communities in particular, tourism may be an emergent strategy at economic survival as the market for natural resources is increasingly competitive. However, the transition from the historical economy to a new economic structure is a source of tension in many communities [13], [14] and others [15], [16] recognize that changes in employment patterns, income sources, and overall economic activity can divide a community between those who would return to historical economic patterns and those who would embrace a new economic reality. Power [17] observes that there may be a considerable lag between recognition of economic myth about how the community formerly made a living and the acceptance of the new reality and eventual acceptance of the new set of economic conditions. This may be particularly acute in the case of tourism – an industry generally perceived to result in low quality jobs, part time or seasonal work, low pay, and a relatively long development period. Accordingly, Jurowski et al. [18] suggest that given a lack of understanding or approval for an ongoing economic transition, tourism development efforts will suffer from a lack of support from the whole community.

Dramatic economic transition may have significant social effects. Rural sociologists recognize that communities meet three social needs: they offer residents a sense of personal and economic security, a place in which to belong socially that may or may not be tied to their employment, and an arena in which residents feel they can make a difference [15]. In the case of natural resource dependent communities, the sense of belonging or community solidarity may be especially acute and a sense of unity may emerge when residents find a clear set of values with which they can identify. Power and Barret [2] and Freudenburg [16] point out that rural communities may also maintain solidarity through a shared economic future as in a mining or timber town but if that future is uncertain, confusion or hostility may result.

1.2 Research Setting

Johnson, Snepenger, and Akis [19] and Aiken [20] discuss the research setting in-depth. Briefly, the area of Shoshone County Idaho U.S.A., known as the Silver Valley was at one time, the world’s largest producer of silver. Discovered in 1883, the mineral deposits of silver, gold, zinc, and lead were developed in underground hardrock mines that honeycomb the 14 mile long valley. Beginning in 1968, a host of factors began to occur that would threaten the regional industry.

The Silver Valley is located in the northern panhandle of Idaho in a narrow mountain river corridor. Local amenities include four season recreation on national forests as well as water-based recreation opportunities. The region extends to and is influenced by the metropolitan centers of Coeur D’ Alene, Idaho (pop. 41,328) and Spokane, Washington (pop. 198,081) to the west (60 km and 100 km respectively) via interstate highway. Additionally, there is an emergent second home market in the region related to tourism as residents of the large metropolitan center of Seattle (pop. 582,454) take advantage of the close proximity of the valley and relatively inexpensive property.

The factors that had combined to weaken the local mining industry led to shutdown of the Bunker Hill Mining Company in 1981 and marked the end of the mining era in the Silver Valley. The valley languished with high unemployment, rapid out-migration and a severely depressed economy from which it is still recovering. Shortly after the shutdown, the U.S. Environmental Protection Agency (EPA) determined the mining area to be severely contaminated and declared the land around the Bunker Hill smelter and refining operation a Superfund cleanup site in 1982 thereby infusing the region with federal funds to clean the environment and transition to a new local economy.

Following the collapse of mining, public meetings were held to educate residents about the potential opportunities of promoting tourism. A complex financial package aimed at building the world’s longest gondola that would serve a destination-style ski resort development emerged after almost three years of negotiation. Partners included the
U.S. Federal government, private investors, the City of Kellogg, and the defunct mining company. The initial stages of the project were completed and the ski area began operations fall/winter of 1990.

During the course of the ski area development, as part of the EPA Superfund activity, all remnants of the mining operations that polluted the valley were removed and the land and local river mitigated. In 2000, the U.S. Forest Service completed the conversion of a scenic section of abandoned rail-bed into a world class non-motorized trail. The biking and hiking trails extend the tourists visitation season into summer and fall.

Completed in 2007-2008, the base area of the gondola has seen construction of condominiums and a large water park. A high-end golf course is under construction on the reclaimed site of the former lead and silver smelter. Several private entrepreneurs have invested in the region. Eating establishments, a large motel, and small businesses have grown around the base development. The ski area itself employs about 110 full and part-time employees. A high level of real estate investment and speculation is currently taking place.

Since the shutdown of the mines in early 1982, over 2000 workers found themselves out of work and thus ended a $50 million annual payroll in the valley (Aiken, 1994). The associated timber industry in the region supplied building lumber as well as mine timbers and consequently suffered when the mine shut down. Between the years 1970 and 1988, employment in the timber and mining industries fell 44% [21]. Double-digit unemployment persists [22].

The two sectors most representative of tourism - retail trade and service-related employment display steady growth in spite of the decline of the regional extractive industry; the uncoupling of these sectors of the local economy are common in many rural communities throughout the Rocky Mountain west [17], [23], [24], [3].

Government-related employment and the construction jobs that follow the Superfund cleanup designation contribute a smaller but steady source of employment to the local economy. The remaining sectors: finance, transportation, and wholesale trade have never been large employment components locally and show almost no movement over the past 30 years. Mining employment dropped by almost half and will likely never attain previous levels because smelting operations have shut down permanently.

The local economy, while much smaller than in the past, is now more diversified, is likely to be more resilient to economic shocks common in resource-dependent economies [17]. The region is taking on some of the characteristics of the “New West” economy discussed above, many new residents are retirees, others live in the Valley and commute to jobs in the service, high tech and retail sectors located in nearby urban centers, some commute to mining and timber jobs elsewhere in the region.

2 LITERATURE SURVEY

While tourism activity is viewed as a source of new revenue, taxes, employment, etc., there is evidence that it can also result in significant negative impacts to the host community. Although others [25], [26] have designed alternative impact scales, conventional tourism impact studies use a battery of sixteen valid and reliable questions that investigate the economic, social, and environmental positive and negative consequences of hosting tourists.

The existing tourism impact literature has for the most part relied on cross-sectional data and has investigated a host of issues related to tourism impacts in many locations around the world [7], [9], [18], [27], [28], [29], [30], [31], [32], [33], [34], [35], [36], [37], [38], [39].

Butler [1] and Ap [30] recommend that since tourism development is a dynamic process where social and cultural aspects may change over time it is best viewed within a longitudinal context. This study follows the suggestion of Butler [1] and other longitudinal studies [40], [41] to take advantage of temporal change in residents’ perception regarding the impact of tourism.

3 DATA AND METHODS

Beginning in 1991, surveys monitoring area residents' expectations of tourism development in the Silver Valley were initiated. The surveys were repeated in 2008 near the end of the winter ski season. The impact survey items include questions that investigate both the expected (in 1991) and current perceptions of the economic, social, and environmental impacts from the ski area development.

The survey instrument contains five items for each of the three tourism impact areas - economic, social and environmental. A final item elicits information on the overall expected/perceived benefits and costs that might be anticipated from tourism
development. All items are measured on a five point Likert-scale where 1 = Strongly Disagree and 5 = Strongly Agree; several items were reverse coded to fit the direction of the scale. Additional survey questions ask for demographic responses including employment condition, marital status, age, years of residency, political self-identification, education level and household income.

For each survey period, three communities in the valley are monitored: Pinehurst, Kellogg, the location of the ski area base operation, and Wallace. For the purposes of this paper, the results for the three communities are pooled into a regional grouping. Total population of the region was 5324 in 1990 and 4817 in 2006 (the last year for which data is available).

For the current survey (n=348), the sample demographics breakdown as follows: the mean age is 47.5 (SD=16.7) and mean number of years in residence in the valley is 30.2 (SD=21.1); Male=38.3% and Female=61.7%; The highest degree earned is high school=31.9%, bachelors degree=10.9%, some college=37.6%, graduate school=9.5% and other =10.1%.

A grid system was utilized to partition each of the communities into several neighbourhoods. Within each neighbourhood, a random sample of thirty to thirty-five households were surveyed. The self-administered questionnaires were distributed to one adult in each household and later retrieved at a predetermined time. Sample sizes and response rates for the two surveys were: 1991 N = 385 (91% response rate) and 2008 N= 348 (88% response rate).

4 FINDINGS

4.1 Perceived Economic Impacts

The economic impacts of tourism are perhaps the most important to any community undergoing a planned economic transition. The economic impact questions assess enhanced employment opportunity, economic equity and inflationary issues associated with tourism development. Results are given in the table at the bottom of the page.

Table 1 shows that the percentage of locals who do not agree with the statements that tourism provides more jobs and attracts more investment has declined from the survey in 1991 while the percentage of hesitant locals has almost doubled. In other words, these two items indicate some level of movement toward a more optimistic view of tourism. On the other hand, percentage of respondents who feel that the local standard of living has increased because of tourism has diminished by 10 percent over the years while the percentage of skeptical locals has gone up by almost the same percentage (9.3).

Concurrently, more than half of the respondents in both surveys agree with the negative aspects of tourism; inflation resulting from tourist spending and the economic benefits of tourism accrues for few in the community. Again, the percentage of skeptical ones has increased from 9 to 20.6 percent in 1991, and from 13 to 27.2 percent in 2008.

4.2 Perceived Social Impacts

Tourism can impart changes to the way of life and social structure in a community. Table 2 in the next page, provides results for the five social impact questions intended to monitor changes to local customs and culture.

<p>| Table 1 |
| RESULTS OF THE SURVEYS IN 1991 AND IN 2008* ABOUT THE PERCEIVED ECONOMIC IMPACTS OF TOURISM DEVELOPMENT |</p>
<table>
<thead>
<tr>
<th><strong>Impacts</strong></th>
<th><strong>Opinions</strong></th>
<th><strong>Strongly agree &amp; Agree</strong></th>
<th><strong>Neutral</strong></th>
<th><strong>Strongly disagree &amp; disagree</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Tourism provides more jobs in the Silver Valley.</td>
<td>18 % (18.3 %)</td>
<td>8 % (16.9 %)</td>
<td></td>
<td>74 % (64.8 %)</td>
</tr>
<tr>
<td>Tourism attracts more investment in the Silver Valley.</td>
<td>10 % (8.4 %)</td>
<td>7 % (13 %)</td>
<td></td>
<td>83 % (78.6 %)</td>
</tr>
<tr>
<td>Our standard of living has increased because of tourism.</td>
<td>47 % (37 %)</td>
<td>16 % (25.3 %)</td>
<td></td>
<td>37 % (37.7 %)</td>
</tr>
<tr>
<td>Prices of goods and services have increased because of tourism.</td>
<td>85 % (68.6 %)</td>
<td>9 % (20.6 %)</td>
<td></td>
<td>6 % (10.8 %)</td>
</tr>
<tr>
<td>Tourism benefits a small group of residents in the Silver Valley.</td>
<td>72 % (57.9 %)</td>
<td>13 % (27.2 %)</td>
<td></td>
<td>15 % (14.9 %)</td>
</tr>
</tbody>
</table>

* Percentages given in parentheses are for the 2008 survey.
The data in Table 2 indicate that a proportion of respondents to both the 1991 (77 percent) and in 2008 (65.3 percent) surveys do not agree that interacting with tourists promotes understanding. However, the percentage of locals who do not agree that they have a good access to recreational facilities including the ski area and its amenities has declined by 20 percent from 1991 to 2008. Indeed, ski area management offers local residents discount ski tickets, free skiing to area schoolchildren, and a series of summer concerts. The negative attitude toward the high spending tourist has declined by 6 percent while the percentage of skeptical ones has increased by almost 9 percent over the years. Almost two thirds of the respondents agree that tourism causes changes in the traditional culture in both surveys which explains why locals do not believe that interacting with tourists is not an enjoyable experience. Finally, approximately half of the respondents believe that local residents suffer from living a tourist destination area; this is most likely due to the increased price of housing in the region.

4.3 Perceived Environmental Impacts

Tourism development can bring a host of environmental impacts but can also enhance local environments if, for example, tourism development replaces “brownfields” or encourages historical preservation of buildings. Too many tourists can result in overcrowding of favourite places for locals; Table 3, below presents these results.

Results for the environmental impact items given in Table 3 display that a negative attitude when it comes to environmental impacts of tourism. Small group of the respondents agree with the statement that there has been more historic preservation and conservation of natural resources in both surveys (8 and 16 percent respectively). Similarly, relatively small groups of the respondents in 1991 (19 percent) and in 2008 (30 percent) believe that there are more parks and other recreational areas for skiing, hiking, etc. On the other hand, an increase is observed in the proportion of the locals (from 19 percent to 30 percent) who agree that public facilities are kept at a high standard over the years. More than half of the residents indicate frustration over the overcrowded outdoor places, and also traffic congestion, noise and pollution in both surveys.

**Table 3**

<table>
<thead>
<tr>
<th>Impact</th>
<th>Opinions Strongly agree &amp; Agree</th>
<th>Neutral</th>
<th>Strongly disagree &amp; disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tourism provides restoration of historical buildings and conservation of natural resources.</td>
<td>8% (15.7%)</td>
<td>10% (18.1%)</td>
<td>62% (66.2%)</td>
</tr>
<tr>
<td>Because of tourism our roads and other public facilities are kept at a high standard.</td>
<td>23% (61.3%)</td>
<td>24% (17.8%)</td>
<td>53% (20.9%)</td>
</tr>
<tr>
<td>Because of tourism there are more parks and other recreational opportunities.</td>
<td>19% (30.1%)</td>
<td>15% (18.6%)</td>
<td>66% (51.3%)</td>
</tr>
<tr>
<td>Tourism results in overcrowded lakes, hiking trails, parks, and other outdoor places for locals.</td>
<td>58% (60.5%)</td>
<td>13% (20.6%)</td>
<td>30% (19.9%)</td>
</tr>
<tr>
<td>Tourists add greatly to traffic congestion, noise and pollution.</td>
<td>61% (55.8%)</td>
<td>14% (25.8%)</td>
<td>25% (18.4%)</td>
</tr>
</tbody>
</table>

* Percentages given in parentheses are for the 2008 survey.
5 Discussion

Social exchange theory is frequently adopted in tourism studies as a theoretical framework for developing an understanding of residents' attitudes toward tourism [30], [42], [43], [44]. The theory specifies that residents and tourists may give and receive in the host-resident tourism context the exchange of tangible and intangible resources; residents are willing hosts if they receive more benefits than costs – i.e. job creation, income generation, and enhanced community infrastructure. Likewise, residents of host areas may perceive tourism in a negative way because of the socio-cultural and environmental costs [45].

It seems clear that even after almost two decades of experience with tourism, the residents of the region have not yet formed an unambiguous opinion of tourism and are not yet sure if they are receiving the full benefits from tourism commensurate with the costs of hosting tourists. Generally, survey results over the seventeen-year time period reveal a general pattern of increasing optimism toward tourism development as measured by responses to the impact questions. However, the changes are not linear and they are not overwhelmingly supportive. As the data indicate, after the resort opened some of the responses to the survey items showed support for tourism. The latest survey shows some erosion of support for several questions suggesting that future support for tourism may wane.

Beeton [14] offers that both as members of a community and as individuals, people may hold different views of the same phenomena – including tourism. Among residents, there are clearly differences with respect to how they feel affected by tourism and tourism development. Congestion and overcrowding may be relevant to those who recreate frequently while others perceive few overcrowding problems. Individuals may feel that tourism is an opportunity for their children to work locally but that benefit is offset by the rising cost of living due to visitors’ high propensity to spend while on holiday. Over time, as the community tourism economy has matured and there has been some recovery from the economic collapse, residents are optimistic that tourism has a legitimate role to play in the local economic mix.

At this time, development of tourism resources and resultant economic impacts continue. The area continues to grow in terms of visitor user days, investment, infrastructure development and employment from a variety of sources. In terms of the Butler model, the area is in the development phase operationalized by continued growth. During the earliest stage of tourism development (i.e. exploration) residents were recovering from the shock of seeing their local mining and timber economy collapse. After the gondola project was completed and had been in operation for a season, results from the first survey indicated relatively low level of support for tourism. They did not realize the long-term nature of tourism as a development strategy [32]. As development continued, accommodations and eating establishments were added to the local business mix; investment created local jobs. Residents increased their support but in a measured way once they understood that tourism was not going to revitalize the communities to the extent mining and timber once had. Concurrently, as tourism investment increased, so too was mining and forestry employment as well as producer services and spending by the federal government for environmental cleanup. The region experienced renewed job creation and business investment; residents were excited by the new business startups and ancillary real estate transactions and Shoshone County was moving up in the economic rankings in the state. Residents expressed optimism for tourism based on activity they perceive in the overall local economy and the process of economic diversification taking place; they were not embracing tourism as an end all to their economic future.

Tourism is now more accepted in some respects than in 1991 because it is no longer the primary economic recovery tool residents originally thought it might be. Rather, it is an addition to the recovering extractive and service industry. A similar finding was reported by Allen, et al [32] in Colorado where tourism by itself was found to be not acceptable as the primary industry but was acceptable as an addition to existing economic activity.

The longitudinal nature of this study demonstrates that an economic transition, even for a small regional population base, is complex and may take some time. Tourism development is a long-term incremental proposition that operates in a highly competitive global setting. This is somewhat unlike resource extraction where once permits are acquired a mine might be fully operational within a year or so. Further, most natural resources such as minerals are located in discrete locations so the globalization of the market is less acute. This is clearly not the case with global recreation tourism; tourists are willing and able to relocate their tourist
spending very easily and there are almost infinite substitutes for small-scale skiing and outdoor recreation opportunities. Finally, whereas return on investment in a resource extraction process can occur relatively quickly, tourism depends on many entrepreneurs to market a destination by building a long-term reputation for service, quality, and excitement [46].

For policy makers and residents alike, the benefits of tracking the development of tourism in a community should be obvious. Support for tourism may shift as the community moves through its own destination life cycle [1] and consequently, periodic monitoring is desirable. The monitoring should include not only resident perceptions of tourism impacts but should also include socioeconomic indicators of wealth, job creation, crime, land use change, and immigration. Other issues of resource capacity might include water quality and availability, impacts from transportation infrastructure, animal habitat impacts, community cost of services, and the location of homes in natural areas.

6 CONCLUSION

The sudden crisis of a failing regional economy provided a focus for community action to develop tourism as an engine of economic recovery. An alternative scenario might have been slow decline of the economy and eventual death of yet another resource dependent community. Given the host of obstacles to implementing a successful transition from the mining and timber trade to tourism services, and considering the barriers to a successful transition, it would seem that the communities in this study are able to adapt to external economic forces and use tourism to do so. They successfully diversified their local economy through tourism development and helped maintain economic viability until the mining industry could rebuild, albeit at a much smaller scale. Tourism, in this case, seems to be an excellent secondary or tertiary industry for the area and helped ease the transition away from an economy dominated by extractive industries. Residents have embraced tourism as a component of the local economic mix and appear to support it as long as the economy is not wholly dependent on it.

As the communities of the Silver Valley move through the tourism life cycle as documented by Butler and others, further shifts in resident perceptions of tourism impacts should be documented and expected.

The northern panhandle of Idaho is forecasted to be a major center for tourism in the near future and downhill skiing is expected to be one of the fastest growing outdoor recreation activities in the next several study periods. If the Valley becomes the home of a true destination resort and begins to attract more second home buyers, greater numbers of year-round tourists, and being to change the social and economic culture of the region, there may be emergent conflict between pro-tourism and natural resource industries. Tracking the development path these communities follow will aid community planners and tourism entrepreneurs in their investment decisions.

There is evidence that tourism can act as a magnet for diversification of an economy. In the future, business may be attracted to the area because of quality of life amenities including recreation potential provided by a thriving year round destination resort complex. As the local environment continues to improve, others will be attracted to communities located in a desirable rural setting. Such social, economic and ecological dynamics are typical in the rapidly changing rural communities of the Rocky Mountains of the U.S. and other high amenity regions globally.

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REFERENCES


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