

## ***Cohesion, Integration and Attachment in Owyhee County Communities***

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## **Introduction**

Grazing on federal public land has long been a part of community life in Owyhee County. Ranches continue to define the landscape in areas such as Jordan Valley, Bruneau and Murphy. Public land management goals are evolving and the continuation of ranching in places such as Owyhee County has become a concrete policy issue. Our question is this: How is ranching tied to community life in Owyhee County?

Social networks are important because they consist of relations between social actors. These relations determine the social attitudes, beliefs and ultimately the actions of people living in a community. Social relations conducted through social interaction are based on the number and strength of social ties to family and friends, and produce feelings toward the community that can be measured. We focus on measuring three attributes of community that are dependent on local networks: cohesion, integration, and attachment.

Cohesion is high when social bonds between people produce shared beliefs about the group and common behavioral assumptions about others in that group. In essence, people come to see themselves as part of a larger social group that shares their own beliefs and actions.

Integration is high when people do not feel isolated or anonymous in their community, and can participate actively in community life. When people participate in their community based on a community feeling, integration is ordering the nature and extent of that participation.

Attachment is high when people feel good about being part of the larger social group. These attributes of communities are closely correlated. Therefore, the social networks that determine their character share attributes as well.

We examined the relationships between networks ties and cohesion, integration and attachment in Owyhee County. First, we discuss the social survey used to measure these

concepts. Then we discuss statistical models used to determine the social variables that lead to higher levels of cohesion, integration and attachment. Finally, we briefly discuss what these results indicate about ranching's role in Owyhee County communities.

### ***Data and Methods***

In December 1998, the Social Survey Research Unit of the University of Idaho conducted a telephone survey of 553 households in Owyhee County. Survey Sampling, Inc. drew a sample of Owyhee County by telephone exchange. The more sparsely populated areas of Murphy, Grand View, Bruneau, Three Creek and the Idaho area near Jordan Valley were over-sampled. This approach avoids the simpler method of proportional sampling, which would over represent the larger towns of Marsing and Homedale. Melba and Jordan Valley telephone exchanges encompass significant areas of Owyhee County. These areas were sampled and potential respondents were screened out if they did not live or operate a business in Owyhee County.<sup>1</sup> Table 1 presents the sample breakdown. Table 2 displays survey response rates for each area. Response rates ranged from 65% in the Murphy area up to 88% in the Grand View area. The overall response rate was 76% for the county as a whole. The final sample of 553 respondents represents an overall survey error rate of  $\pm 4.2\%$  (Rea and Parker, 1997).

We synthesize survey data to evaluate the relationship between local ranching and social life in Owyhee County. Our focus is necessarily on ranching. Ranchers, and those having ongoing economic and social relations with them, will primarily experience any impacts stemming from changes in public land grazing policies.

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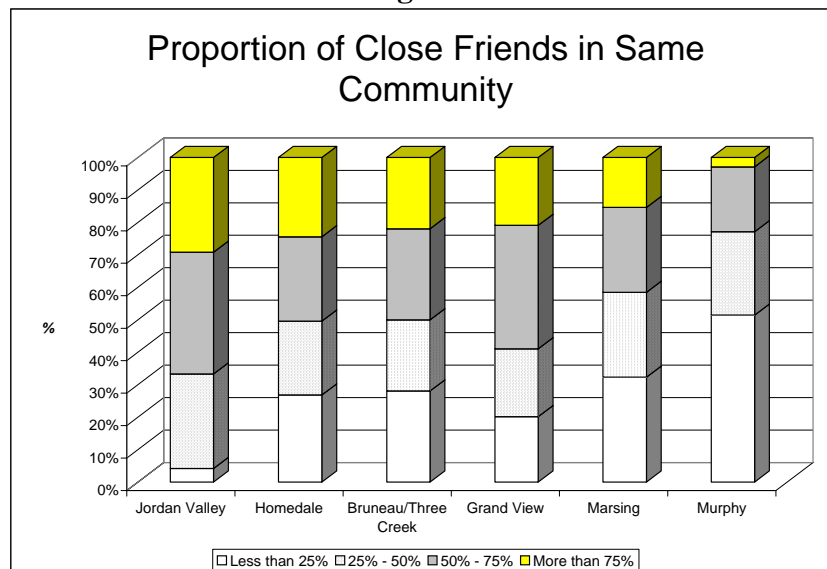
<sup>11</sup> Some families lived in other counties and farmed or ranched in Owyhee County. These people were included in the sample.

## Ranching and Communities in Owyhee County

### Social Networks

The most important single network measure used in community research is “density of acquaintanship.” This is measured by the proportion of close friends a respondent has living in their community. Figure 1 displays the density of acquaintanship for each of the six communities in the Owyhee County study area. Jordan Valley displays the highest density of acquaintanship with more than 30% of respondents having more than 75% of their close friends living in the same community.

Figure 1



Two additional measures of social network participation were used. Respondents were asked if at least one close friend ran a local ranch or a local business. These measure the degree to which people incorporate these local economic activities into their networks. Figures 2 and 3 illustrate these measures for each of the Owyhee County communities. It is not surprising that places such as Jordan Valley and Bruneau have a high proportion of people with friends who ranch (Figure 2): ranches dominate the landscape in these areas. Local business owners are also

familiar to respondents (Figure 3). There are two ways to look at this variable. On one hand, in trade centers such as Marsing and Homedale, there are more business owners for local people to know. On the other hand, in small communities like Bruneau and Murphy, the few business owners there can get to know everyone.

Figure 2

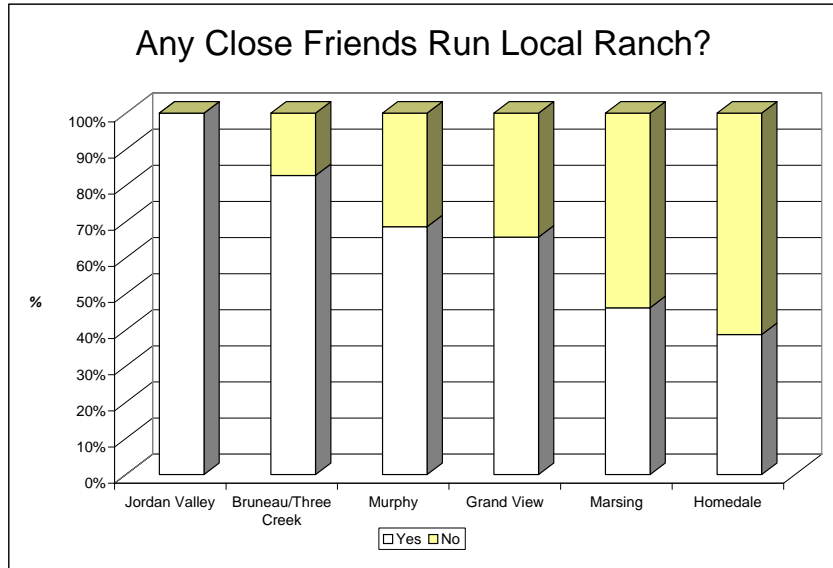
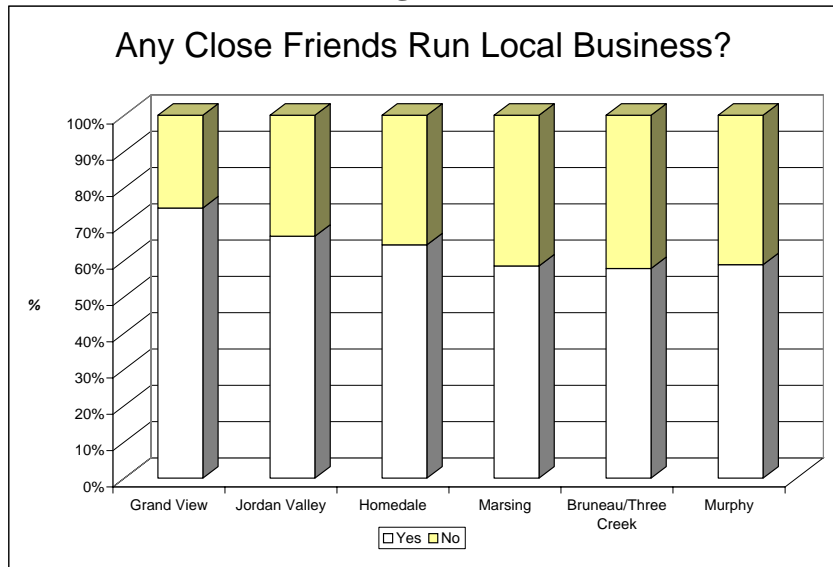


Figure 3



These network measures indicate the degree to which local people have local ties, and how prevalent two types of economic activities are in those networks. These measures provide a foundation for examining other important social indicators because they offer a glimpse at the structure of the communities, or what is at stake socially if changes occur in the local economy.

### ***Cohesion, Integration, and Attachment***

We created a general social scale to measure cohesion, integration and attachment using survey items from the general rural community literature (See references). Respondents were asked if they strongly agreed, agreed, were neutral, disagreed or strongly disagreed with each statement. Table 3 presents the frequencies for Owyhee County on these survey items.

We performed factor analysis on the social cohesion items using principal component extraction and a varimax rotation method. Table 4 presents the rotated factor solution. A three-factor solution emerges. The first factor appears to focus on those items directly related to cohesion on the part of respondents. Factor 2 captures neighborliness, which Brown, et al. (1989) used as a direct measure of social integration. Finally, factor 3 measures community attachment similar to measures used by Sampson (1991), Goudy (1990) and others. Reliability analyses for two scales are presented in Table 5. The cohesion and integration scales have significant Cronbach's alphas, with social cohesion having the highest. No alpha was calculated for attachment since it has only two items. The respective survey items are summed into additive scales to measure cohesion, integration and attachment.

Scales for each of these measures for each community are displayed in Figures 4, 5 and 6. The numerical scales are the sum of the response items from a possible minimum score of 5 to different maximums, depending on the scale.

Figure 4

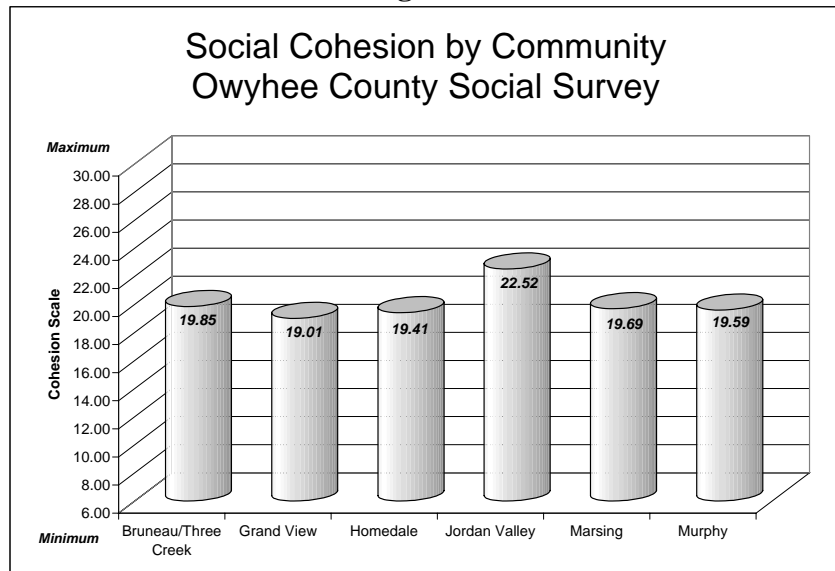


Figure 5

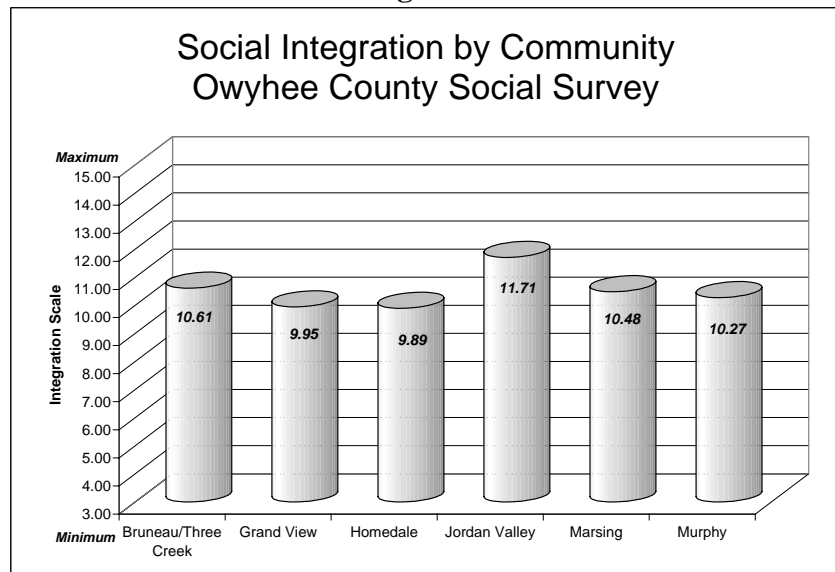


Figure 6

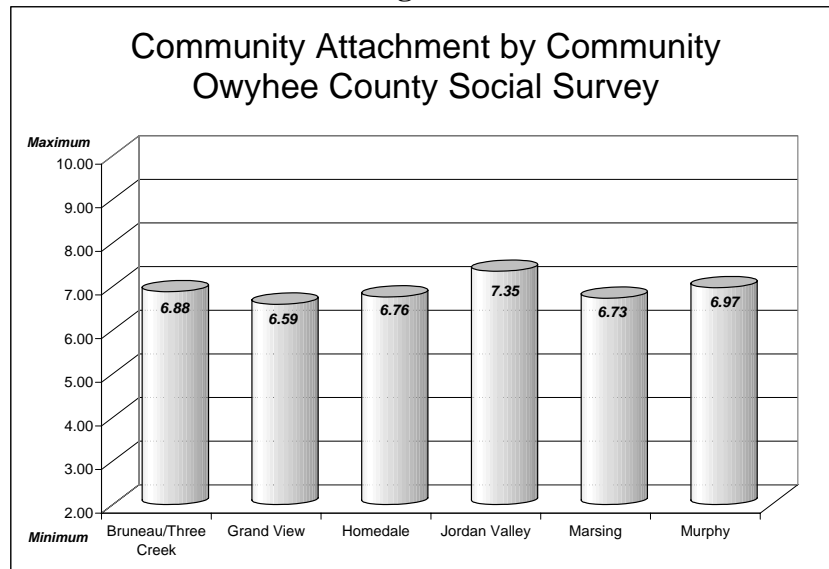


Table 6 indicates that communities differ in their means for these three scales. Statistically significant differences are noted by the numbered superscripts. With respect to cohesion, Jordan Valley displays the highest mean cohesion score while all other communities do not differ significantly. Jordan Valley, Bruneau and Marsing have significantly higher integration scores than other communities. Finally, Jordan Valley has a slightly higher attachment score than Grandview and Homedale, but most communities do not differ significantly from one another.

What social attributes contribute to cohesion, integration and attachment? The rural community literature indicates that a large number of variables could be good predictors for these models. We evaluated a large number of possible predictors and derived final models for cohesion, integration and attachment based on those predictors that were consistently significant statistically. We use multiple classification analysis (MCA) to predict responses for cohesion, integration and community attachment in Owyhee County. MCA allows us to estimate how a

specific group varies from the mean value of cohesion, integration and attachment scales after we take into account a set of other variables.

MCA results for Owyhee County are presented in Tables 7, 8 and 9. In MCA we focus on the deviations for each category of the explanatory variable. In Table 7, unadjusted for the other variables, white respondents have cohesion scores slightly higher than the mean for the whole sample. Hispanics and other non-whites have cohesion scores almost two points lower than the mean cohesion score. Lower cohesion scores for non-whites persists even when we take the other variables into account by adjusting for the other categorical variables or ‘factors’ and for the continuous variable or ‘covariate.’ When we adjust for the other variables and a covariate, non-whites still have cohesion scores much lower than whites.

Cohesion scores differ by community as well. Unadjusted deviations indicate that Jordan Valley has a cohesion score three points higher than the mean, while Grandview, Homedale and Marsing actually have unadjusted scores below the mean. When we adjust for the other variables and the covariate, Jordan Valley’s deviation drops significantly and others rise, with the exception of Grandview. Marsing and Murphy have cohesion scores above the mean after taking all other variables into account.

The three network variables also contribute significantly to understanding the roots of social cohesion. Respondents with fewer than 25% of their friends in the local community have unadjusted cohesion scores less than the mean. Those with more than 75% of their friends living in their community have unadjusted scores almost a full point above the mean. When these scores are adjusted for the other variables, the distribution of these deviations remains approximately the same but the conclusion is clear: higher proportions of close friends in the community, the higher the cohesion score.

With respect to close friends who ranch or own a business, the conclusions are equally clear. Unadjusted deviations indicate that not having close friends who ranch or run a business reduces cohesion scores greatly. When these deviations are adjusted, the magnitude of the deviations is reduced, but the conclusion remains the same: respondents with close friends ranching and running a local business see the community as significantly more cohesive than those without such ties.

The only statistically significant covariate is journey to work, measured in miles one way. We evaluate the relationship between this variable and cohesion using the correlation displayed in Table 10. The correlation between cohesion and journey to work is  $-0.208$ , indicating that there is a negative linear relationship between the two variables. The further respondents have to drive to work the lower their cohesion scores. People who drive to population centers from places such as Owyhee County are exposed to and integrated into the larger social networks available in those areas.

The partial  $R^2$  in Table 7 indicates that community and the proportion of close friends contributed the most the explaining cohesion. The total  $R^2$  indicates that the MCA model adjusted for factors and covariates explained about 23% of the variance in cohesion scores.

Table 8 displays the MCA results for integration. Much of the interpretation is similar that of cohesion. The set of statistically significant explanatory variables differs slightly from social cohesion, and no covariate was found to be significant. The community in which the respondent grew up until age 18 indicates that people growing up in rural areas have unadjusted cohesion scores above the mean for the county, while those growing up in other circumstances display cohesion scores below the mean. When adjusted for the other factors, we get a counter intuitive result. The deviation of people growing up in larger towns rises to 0.07 from  $-0.08$ .

One possible explanation is that people moving to places like Owyhee County bring expectations of behavior with respect to their neighbors, and act accordingly.

Female respondents have unadjusted and adjusted deviations above the integration mean. Female respondents have higher integration scores than male respondents. Women have different networks than men and a theoretical expectation is that they rely on others more readily than men.

Community in which the respondent lives significantly explained integration. Again, Jordan Valley exceeded the mean for the county. Grandview and Homedale were below the mean, Murphy was about equal to the mean, and Bruneau and Marsing exceed it. The other network variables have an impact similar to that of cohesion. If you have friends that ranch or own a business, you feel the community is more integrated. The fact that proportion of friends living locally was not a significant factor is interesting. How people deal with their direct neighbors is independent of their general network of friends.

The final MCA is for community attachment (Table 9). Again, background was significant. People growing up in rural areas have attachment scores above the mean. Community shows a useful pattern. Jordan Valley has an unadjusted deviation of 0.52 and Murphy 0.19. When these deviations are adjusted for the other variables and the covariate, Jordan Valley falls to 0.26 and Murphy rises to 0.40. This might be due to the mine closure in Jordan Valley reducing the percentage of people planning to stay in the community. Only Grandview maintained an attachment score lower than the mean after adjustment. Journey to work is correlated negatively with attachment (Table 10). The further people go to work, the less attached they are to their community.

## **Discussion**

Whether or not people have a close friend that ranches makes a difference in their assessment of the cohesion and integration of their community in Owyhee County. Other factors such as the density of acquaintenship, journey to work, gender and ethnicity also come into play. The primary conclusion we draw is these communities characterized by ranching display higher cohesion and integration scores, and people having ranchers and business people in their personal networks also score higher on these scales. People in communities such as these view ranching and ranchers as an important component of their community life. Affecting the ranch portion of the community ripples through social networks and will affect community social relations. We conclude that these affects will reduce cohesion and integration in Owyhee County communities.

**Table 1: Sample for Owyhee County Social Survey.**

Town	Sample Count	% of Sample
Homedale	240	20.0%
Marsing	120	10.0%
Murphy	27	2.2%
Melba	451	37.6%
Nampa	27	2.2%
Kuna	7	0.6%
Grand View	206	17.2%
Bruneau	103	8.5%
Three Creek	15	0.1%
Jordan Valley (South Mt., Silver City)	4	0.3%

**Table 2: Response Rates, Owyhee County Social Survey.**

Town	Eligible Residents	Completed Interviews	Response Rate	% of Total Respondents
Homedale	174	121	70%	22%
Marsing	90	65	72%	12%
Murphy	26	17	65%	3%
Melba	70	51	73%	9%
Nampa	-	-	-	-
Kuna	-	-	-	-
Grand View	156	138	88%	25%
Bruneau	161	124	77%	22%
Three Creek	14	10	71%	2%
Jordan Valley (South Mt. area)	33	27	82%	5%
<b>Total</b>	<b>724</b>	<b>553</b>	<b>76%</b>	<b>100%</b>

**Table 3: Social cohesion survey item frequencies, Owyhee County.**

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
You believe your neighbors would help you in an emergency.	69.3%	26.7%	2.0%	1.8%	0.2%
You plan to remain a resident of this community for a number of years.	53.9%	37.5%	4.6%	2.7%	1.3%
Overall, you are very attracted to life in your community.	49.0%	44.1%	4.7%	2.0%	0.2%
You feel you can visit with your neighbors in their homes.	48.5%	43.6%	4.0%	3.4%	0.5%
You feel like you belong to this community.	48.0%	43.5%	4.0%	4.0%	0.5%
You regularly stop and talk with people in your community.	47.8%	44.2%	3.5%	4.2%	0.4%
You feel loyal to the people in your community.	46.2%	46.5%	4.9%	2.4%	0.0%
You feel you can borrow things and exchange favors with your neighbors.	45.8%	43.8%	4.8%	5.1%	0.5%
Living here gives you a sense of community.	43.6%	46.4%	4.9%	4.5%	0.5%
A feeling of fellowship runs deep between you and other people in this community.	36.9%	48.5%	8.3%	5.9%	0.4%
You like to think of yourself as similar to the people who live in your community.	30.8%	53.0%	7.0%	7.3%	1.8%

**Table 4:** Community cohesion items: rotated factor solution.

Survey Item	Factor		
	1	2	3
A feeling of fellowship runs deep between you and other people in this community.	<b>0.7882</b>	0.2550	0.1447
You regularly stop and talk with people in your community.	<b>0.7005</b>	0.1579	0.1022
Living here gives you a sense of community.	<b>0.6663</b>	0.4017	0.3271
You like to think of yourself as similar to the people who live in your community.	<b>0.6409</b>	0.1453	0.3811
You feel like you belong to this community.	<b>0.6377</b>	0.3434	0.3769
You feel loyal to the people in your community.	<b>0.6066</b>	0.3745	0.2909
You believe your neighbors would help you in an emergency.	0.0812	<b>0.7895</b>	0.3205
You feel you can borrow things and exchange favors with your neighbors.	0.4147	<b>0.7287</b>	-0.0334
You feel you can visit with your neighbors in their homes.	0.4102	<b>0.6865</b>	0.1766
You plan to remain a resident of this community for a number of years.	0.2223	0.0886	<b>0.8721</b>
Overall, you are very attracted to life in your community.	0.3286	0.3770	<b>0.5792</b>

**Table 5:** Reliability coefficients for cohesion and integration scales.

Survey Item	Alpha	Standardized Alpha
<i>Cohesion Scale</i>		
A feeling of fellowship runs deep between you and other people in this community.	<b>0.871</b>	<b>0.8736</b>
You regularly stop and talk with people in your community.		
Living here gives you a sense of community.		
You like to think of yourself as similar to the people who live in your community.		
You feel like you belong to this community.		
You feel loyal to the people in your community.		
<i>Integration Scale</i>		
You believe your neighbors would help you in an emergency.	<b>0.7439</b>	<b>0.7515</b>
You feel you can borrow things and exchange favors with your neighbors.		
You feel you can visit with your neighbors in their homes.		

**Table 6:** Means by Community for Cohesion, Integration, and Attachment.

	Scale Means <sup>1</sup>		
	Cohesion	Integration	Attachment
1. Bruneau/Three Creek	19.85 <sup>4</sup>	10.61 <sup>2,3,4</sup>	6.88
2. Grand View	19.01 <sup>4</sup>	9.95 <sup>1,4,5</sup>	6.59 <sup>4</sup>
3. Homedale	19.41 <sup>4</sup>	9.89 <sup>1,4,5</sup>	6.76 <sup>4</sup>
4. Jordan Valley	22.52 <sup>1,2,3,5,6</sup>	11.71 <sup>1,2,3,5,6</sup>	7.35 <sup>2,3</sup>
5. Marsing	19.69 <sup>4</sup>	10.48 <sup>2,3,4</sup>	6.73
6. Murphy	19.59 <sup>4</sup>	10.27 <sup>4</sup>	6.97
<i>Owyhee County Total</i>	<i>19.64</i>	<i>10.29</i>	<i>6.80</i>

<sup>1</sup> Significant differences between communities via L.S.D. at  $\alpha=0.05$ .

**Table 7:** Multiple Classification Analysis: Cohesion in Owyhee County.

Social Cohesion Scale Grand Mean = 19.64		Unadjusted		Adjusted for Factors		Adjusted for Factors & Covariates		Partial R <sup>2</sup>
		Deviation	Eta	Deviation	Beta	Deviation	Beta	
Ethnicity	White	0.42	0.255	0.27	0.168	0.28	0.173	0.0239
	Hispanic	-1.96		-1.06		-1.12		
	All Others	-1.98		-1.79		-1.78		
Community	Grand View	-0.63	0.255	-1.02	0.213	-0.91	0.199	0.0436
	Homedale	-0.59		-0.02		-0.02		
	Bruneau/3 Creek	0.48		0.21		0.11		
	Marsing	-0.09		0.37		0.36		
	Murphy	0.23		0.82		0.84		
	Jordan Valley	3.01		1.89		1.85		
Proportion close friends	LT 25%	-1.67	0.286	-1.26	0.213	-1.14	0.194	0.0370
	25% to 50%	0.16		0.25		0.19		
	50% to 75%	0.60		0.36		0.35		
	75%+	0.99		0.76		0.69		
Close Friends Ranch	Yes	0.74	0.291	0.31	0.122	0.32	0.128	0.0105
	No	-1.47		-0.62		-0.65		
Close Friends Business	Yes	0.67	0.258	0.37	0.143	0.32	0.124	0.0156
	No	-1.27		-0.71		-0.61		
Covariates								
Journey to Work		0.0146						
<b>Total R<sup>2</sup></b>				<b>0.2197</b>		<b>0.2343</b>		

**Table 8:** Multiple Classification Analysis: Integration in Owyhee County.

<b>Neighborliness Scale</b> <b>Grand Mean = 10.29</b>		<b>Unadjusted</b>		<b>Adjusted for Factors</b>		<b>Partial R<sup>2</sup></b>
		<b>Deviation</b>	<b>Eta</b>	<b>Deviation</b>	<b>Beta</b>	
Community until 18	Rural	0.29	0.169	0.18	0.132	0.0168
	Small Town LT 10K	-0.45		-0.40		
	Large Town GT 10K	-0.08		0.07		
Gender	Female	0.11	0.068	0.15	0.092	0.0080
	Male	-0.13		-0.18		
Community	Grand View	-0.31	0.244	-0.36	0.214	0.0422
	Homedale	-0.37		-0.24		
	Murphy	0.00		-0.04		
	Bruneau/3 Creek	0.34		0.28		
	Marsing	0.22		0.30		
	Jordan Valley	1.44		1.20		
Close Friends Ranch	Yes	0.35	0.251	0.21	0.152	0.0171
	No	-0.59		-0.36		
Close Friends Business	Yes	0.23	0.177	0.19	0.143	0.0177
	No	-0.44		-0.35		
<b>Total R<sup>2</sup></b>				<b>0.1418</b>		

**Table 9:** Multiple Classification Analysis: Community attachment in Owyhee County.

<b>Community Attachment</b> <i>Grand Mean = 6.80</i>		<b>Unadjusted</b>		<b>Adjusted for Factors</b>		<b>Adjusted for Factors &amp; Covariates</b>		<b>Partial R<sup>2</sup></b>
		<b>Deviation</b>	<b>Eta</b>	<b>Deviation</b>	<b>Beta</b>	<b>Deviation</b>	<b>Beta</b>	
Community until 18	Rural	0.27	0.186	0.17	0.147	0.16	0.143	0.0204
	Small Town LT 10K	-0.32		-0.31		-0.30		
	Large Town GT 10K	-0.11		0.04		0.04		
Community	Homedale	-0.06	0.152	0.00	0.178	0.00	0.165	0.0302
	Marsing	-0.08		0.03		0.01		
	Murphy	0.19		0.39		0.40		
	Grand View	-0.23		-0.35		-0.32		
	Bruneau/3 Creek	0.16		0.18		0.15		
Jordan Valley	0.52		0.27		0.26			
Proportion close friends	LT 25%	-0.50	0.242	-0.43	0.212	-0.40	0.196	0.0392
	25% to 50%	0.09		0.15		0.13		
	50% to 75%	0.10		0.03		0.03		
	75%+	0.41		0.36		0.33		
Close Friends Business	Yes	0.21	0.210	0.17	0.168	0.16	0.156	0.0255
	No	-0.38		-0.31		-0.28		
<i>Covariates</i>								
Journey to Work								0.0117
<b>Total R<sup>2</sup></b>				<b>0.13475</b>		<b>0.14641</b>		

**Table 10:** Correlation of Journey to Work, with Cohesion, Integration and Attachment.

	<b>Pearson Correlation</b>	<b>Significance p&lt;</b>
Cohesion	-0.208	0.0002
Integration	-0.079	0.1559
Attachment	-0.162	0.0033

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