

COHESION, INTEGRATION, AND ATTACHMENT IN OWYHEE COUNTY COMMUNITIES

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ABSTRACT

How social change occurs is an important consideration when analyzing the effects of public land management policies on rural communities. This paper utilizes data from a recent study in Owyhee County, Idaho, to explore the combination of social attributes that contribute to community attitudes of cohesion, integration, and attachment in a set of rural communities. Specifically, we examine the importance of social networks and where a particular public land activity, ranching, fits into those networks. We then evaluate the role such networks play in determining respondent attitudes about the cohesiveness of their community, how they are integrated with people in their community, and how attached they are to where they live. The results indicate that increasing density of acquaintanship and intimate social connections to ranching and other local businesses increase the strength of cohesion and integration attitudes. Density of acquaintanship and intimate social connections to local businesses increase community attachment, but a social connection to ranching does not.

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INTRODUCTION

Grazing on federal public lands has long been a part of community life in many rural areas throughout the American West. Controversy concerning the social impacts of reducing or removing grazing often centers around the role that ranching, in general, and public land grazing, in particular, play in the social organization of communities. Beyond the often cited, but conceptually precarious, assertion that public land grazing is a cultural foundation for local communities, there is limited evidence concerning how ranching is related to social relations and the social organization of those communities.

In this paper, we examine how some of the social characteristics of ranching communities are associated with community social organization. We evaluate some of the attributes of social networks in ranching communities and how they and other social indicators are associated with respondent attitudes about the cohesiveness of their community, how they are integrated with people in their community, and how attached they are to where they live.

CONCEPTS

Our conceptual question is this, "What role, if any, does ranching play in determining whether people see their community as cohesive, whether they interact in meaningful ways with their neighbors, and whether they are attached to their community." Outside the context of ranching or public lands generally, what determines these attitudes is a common research question in rural sociology. The literature cited here bears this out. Our results are a first step in pushing those questions further to ask how the interaction of economic activity and social relations help to determine those attitudes. Our basic thesis is that the nature and strength of local social networks include economic activities, such as ranching, and that social/economic ties at least partially account for social attitudes of cohesion, integration, and attachment (Harp, Thompson, and Krannich 1998).

Social networks are patterns of repeated relations between social actors. They have a number of conceptually useful attributes, such as the number or strength of social ties to family and friends. We apply a standard measure known as "density of acquaintanceship" to measure one such attribute. This is the most empirically important single network measure used in community research. It is measured simply by the proportion of close friends a respondent has living in their community. The higher the proportion, the more "dense" the social network for an individual. The point is simply that the more friends you have where you live, the more likely you will be to see your community in a positive light and choose to interact with people there (Beggs, Haines, and Hurlbert 1996; Goudy 1990; O'Brien and Hassinger 1992; Stinner et al. 1990).

Cohesion is high when social relations between people produce a sense of belonging to a group with shared beliefs and common behavioral assumptions, and a feeling of recognition as members of that group (Jensen 1998, Buckner 1988). 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 (Brown, Geertson, and Krannich 1989). Activities that are evidence of integration include visiting, and borrowing and lending between neighbors. When integration is high, people are more willing to trust their neighbors in both a social and material fashion (Cowell and Green 1994, Brown 1993). Attachment is high when people feel a strong sense of social connection to their community that makes them reluctant to leave or withdraw from social relations (Kasarda and Janowitz 1974, Liu et al. 1998, Brown 1993, Goudy 1990).

The motivation for this framework is the tendency of policy analysis to evaluate economic impacts as if they are carefully delineated changes in otherwise socially isolated transactions. We seek to broaden that discussion by asserting and measuring how local economic relations are tied to concrete social relations. Thus, changes in an industry, such as public land grazing, must be evaluated within an appropriate social context.

We examine the relationships between network ties and cohesion, integration, and attachment in Owyhee County, Idaho. 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 discuss what these results indicate about the role of ranching in the social organization of 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. A sample of Owyhee County was drawn by each telephone exchange. The more sparsely populated areas of Murphy, Grand View, Bruneau, Three Creek, and the Idaho area near Jordan Valley, Oregon, were over-sampled. This approach avoids the simpler method of proportional sampling, which would over represent the larger towns of Marsing and Homedale. Potential respondents were screened out if they did not live or operate a business in Owyhee County. Response rates ranged from 65% in Murphy to 88% in Grand View. The overall response rate for the county as a whole was 76% (Rea and Parker 1997).

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Social Networks

Table 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 almost 30% of respondents having more than 75% of their close friends living in the same community. Two additional network measures were used. Respondents were asked if at least one close friend ran a local ranch or a local business. This measures the degree to which people incorporate these local economic activities into their networks. Tables 2 and 3 display 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: ranches dominate the landscape in these areas. Local business owners also are friends with many respondents. There are two ways to look at this. 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 almost everyone. 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.

Cohesion, Integration, and Attachment

General community social survey items were drawn from the literature, pre-tested, and modified for use in this study. Respondents were asked if they strongly agreed, agreed, were neutral, disagreed, or strongly disagreed with each in a randomly ordered series of statements concerning their community. We performed factor analysis on these items using principal component extraction and a varimax rotation method. A three-factor solution emerged. The first factor appears to focus on those items directly related to cohesion on the part of respondents (Buckner 1988). The second factor captured neighborliness, which Brown et al. (1989) used as a direct measure of social integration. The third factor captured community attachment similar to measures used by Sampson (1991), Goudy (1990), and others. The respective survey items were summed into additive scales to measure cohesion, integration and attachment. The items, scale ranges, and reliability tests for the scales are presented in Table 4. The cohesion and integration scales each have a solid Cronbach's *alpha*, with social cohesion having the highest. No *alpha* was calculated for attachment since it has only two items.

The rural community literature indicates that a large number of variables can be good predictors for the attitudes captured in these scales. We evaluated a large number of possible predictors and derived final models for cohesion, integration, and attachment based on those predictors that proved consistently significant. We use multiple classification analysis (MCA) to predict responses for cohesion, inte-

gration, and community attachment in Owyhee County. For each category of the explanatory variable, MCA estimates deviations from the scale mean unadjusted for other variables, and estimated deviations adjusted for all other variables and covariates. The results for MCA are presented as deviations from the overall scale mean unadjusted, adjusted for all factors, and adjusted for factors and covariates.

Table 1. Density of acquaintanship in Owyhee County communities. "What proportion of your close friends live in the same community?"

Community	<25%	25–50%	50–75%	>75%
Jordan Valley	4.2%	29.2%	37.5%	29.2%
Homedale	26.8%	22.8%	26.0%	24.4%
Bruneau/Three Creek	28.1%	21.9%	28.1%	21.9%
Grand View	20.1%	20.9%	38.1%	20.9%
Marsing	32.3%	26.2%	26.2%	15.4%
Murphy	51.4%	25.7%	20.0%	2.9%
Total sample	26.7%	23.0%	29.9%	20.4%

Table 2. Frequency of ranchers in social networks in Owyhee County. "Do any of your close friends run local cattle ranches?"

Community	Yes	No
Jordan Valley	100.0%	0.0%
Bruneau/Three Creek	82.8%	17.2%
Murphy	68.6%	31.4%
Grand View	65.7%	34.3%
Marsing	46.2%	53.8%
Homedale	38.7%	61.3%
Total sample	62.3%	37.7%

Table 3. Frequency of local businesses in social networks in Owyhee County. "Do any of your close friends run local businesses?"

Community	Yes	No
Grand View	74.5%	25.5%
Jordan Valley	66.7%	33.3%
Homedale	66.1%	36.7%
Marsing	58.5%	41.5%
Bruneau/Three Creek	57.8%	42.2%
Murphy	57.1%	40.0%
Total sample	64.9%	35.1%

Table 4. Survey items, ranges, and reliability coefficients for cohesion, integration, and attachment scales.

Survey item	Alpha	Standardized alpha
Cohesion scale [Range = 6 to 30]		
A feeling of fellowship runs deep between you and other people in this community.	0.871	0.8736
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.		
Integration scale [Range = 3 to 15]		
You believe your neighbors would help you in an emergency.	0.7439	0.7515
You feel you can borrow things and exchange favors with your neighbors.		
You feel you can visit with your neighbors in their homes.		
Attachment scale [Range = 2 to 10]		
You plan to remain a resident of this community for a number of years.	n/a	n/a
Overall, you are very attracted to life in your community.		

Cohesion Scale

Table 5 presents MCA results for the cohesion scale. The significant indicators of cohesion attitudes were ethnicity, respondent's community, density of acquaintanship, close friends ranching, close friends having businesses, and the distance of journey to work as a covariate. For unadjusted deviation, the most significant variables, as measured by the *eta* statistic, in explaining cohesion attitudes were having close friends that ranch and density of acquaintanship. Respondents with at least one close friend ranching had significantly higher cohesion scores, +0.74 above the mean, than did respondents without such a tie, -1.47 below the mean. In the same fashion, the greater a respondent's density of acquaintanship, the higher their cohesion score relative to the mean. A similar unadjusted result holds for having a friend with a local business. Jordan Valley displayed significantly higher unadjusted cohesion scores than did other communities, and non-whites were far less likely to see their community as cohesive than whites.

When we adjust the cohesion scale scores for other factors and the covariate, the results change somewhat. Adjusted scores are most significantly affected by density of acquaintanship and the community in which the respondent lives, as measured by the *beta* estimate. Jordan Valley's deviation drops to +1.89 and others rise, with the exception of Grand View. Marsing and Murphy have cohesion scores above the mean after taking all other variables into account. The density of acquaintanship retains the same relationship to cohesion in that higher density is related to greater feelings of cohesion. The ethnicity result also remains strong. Whites view their communities as more cohesive than do non-whites. Hispanics have mean scale scores a full point less than whites (-1.12) and non-Hispanic, non-whites have scores even lower (-1.78). This is not surprising. The pattern of

deviations for close friends ranching or having a business remains the same, indicating that having a friend in one of these lines of work increases a respondent's cohesion scale score.

The only statistically significant covariate is journey to work, measured in daily one-way miles. We evaluate the relationship between this variable and cohesion using the correlation displayed in Table 8. 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. Finally, the total R² indicates that the MCA model adjusted for factors and covariates explained about 23% of the variance in cohesion scores.

Integration Scale

Table 6 displays the MCA results for the integration scale. Much of the interpretation is similar to that of cohesion, though no covariate was found to be significant. The significant indicators of integration attitudes were the size of community the respondent resided in until age 18, respondent's gender, respondent's community, close friends ranching, and close friends having a business. Significant in its absence is density of acquaintanship. This would indicate that direct social relations with neighbors are independent of a general network of friends. The community in which the respondent lives significantly explained integration. Again, Jordan Valley exceeded the mean for the county. Grand View and Homedale were below the mean, Murphy was about equal to the mean, and Bruneau and Marsing exceeded it. The other network variables have an impact similar to that of cohesion;

Table 5. Multiple Classification Analysis: cohesion scale, Owyhee County.

Social cohesion scale grand mean = 19.64		Unadjusted		Adjusted for factors		Adjusted for factors and covariates		
		Deviation	Eta	Deviation	Beta	Deviation	Beta	Partial R ²
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/Three 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	<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 have 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
Total R ²				0.2197		0.2343		

Table 6. Multiple Classification Analysis: integration scale, Owyhee County.

Integration scale grand mean = 10.29		Unadjusted		Adjusted for factors		Partial R ²
		Deviation	Eta	Deviation	Beta	
Community until 18	Rural	0.29	0.169	0.18	0.132	0.0168
	Small town <10K	-0.45		-0.40		
	Large town >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/Three 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 have business	Yes	0.23	0.177	0.19	0.143	0.0177
	No	-0.44		-0.35		
Total R ²				0.1418		

if you have friends that ranch or own a business, you feel the community is more integrated.

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 integration scores slightly higher than male respondents. Women have different networks than men and a theoretical expectation is that they rely on others more readily than men.

Attachment Scale

The final MCA is for community attachment (Table 7). The significant indicators of attachment attitudes were the size of community the respondent resided in until age 18, respondent's community, density of acquaintenship, close friends having a business, and journey to work as a covariate. Density of acquaintenship again proves very significant, and with a pattern very much like that found for the cohesion and integration analyses. Community also shows a distinct 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 Grand View maintained an attachment score lower than the mean after adjustment.

Community background also was significant. People growing up in rural areas and in larger towns have attachment scores above the mean. Again, having friends that operate local businesses increases feelings of community attachment. Journey to work is correlated negatively (-0.162) with attachment (Table 8). The further people go to work, the less attached they are to their community.

DISCUSSION

Whether or not people have close friends that ranch 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. General network strength and having friends that operate businesses other than ranching contribute to community attachment.

Table 7. Multiple Classification Analysis: community attachment in Owyhee County.

Community attachment scale grand mean = 6.80		Unadjusted		Adjusted for factors		Adjusted for factors and covariates		
		Deviation	Eta	Deviation	Beta	Deviation	Beta	Partial R ²
Community until 18	Rural	0.27	0.186	0.17	0.147	0.16	0.143	0.0204
	Small town <10K	-0.32		-0.31		-0.30		
	Large town >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/Three Creek	0.16		0.18		0.15		
	Jordan Valley	0.52		0.27		0.26		
Proportion close friends	<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 have business	Yes	0.21	0.210	0.17	0.168	0.16	0.156	0.0255
	No	-0.38		-0.31		-0.28		
Covariates								
Journey to work								0.0117
Total R ²				0.13475		0.14641		

Table 8. Correlation of journey to work with cohesion, integration, and attachment.

	Pearson correlation	Significance p<
Cohesion	-0.208	0.0002
Integration	-0.079	0.1559
Attachment	-0.162	0.0033

People in communities such as these in Owyhee County will tell you that they 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. However, the vital analysis question is this, “Will changes in the ranch sector necessarily bring about social changes?” There is some evidence that it will. The simple answer is that if people view ranching as an important underpinning to the cohesion and integration of their community, then adverse changes in ranch life will have a social impact. This is just an example of the sociological maxim that people will act on their beliefs.

There is another way to understand these results. Ranching is what we might term an “obvious” occupation. Ranchers are conspicuous in their occupational position. They have high social profiles at least partly because we can see their land and cattle, see them serving on local boards, etc. Most people, even those new to the community, see ranching as a distinct occupation and attach social assumptions to that occupation. If a community member works outside of the county, their occupation lacks the immediacy and ties to the local landscape that ranchers have. Hence, having a friend who ranches is more socially important than having a friend who sells cars because it opens onto a larger set of social assumptions about landscape and community.

We also have to keep a very important point in mind—the role ranchers (or any other group) play in the social organization of a community are themselves concrete social relations. If public land policy induces a change in social relations, due to economic change or any other avenue, it might change some or many of the social relations in a community. Those changes are social impacts. We often have heard advocates on the many sides of grazing disputes say things such as “the community will adjust” and “the community will fall apart.” Our response is that the changes in a community have to be evaluated first. However, if ranchers are highly integrated into local social networks *because* they are ranchers, then their fate is tied to the social fate of the community. In communities like those of Owyhee County, how communities adjust is tied directly to the role ranching plays in their social organization.

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