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Information Use and Delivery Preferences Among Small-Acreage Owners in Areas of Rapid Exurban Population Growth

Mark Brunson

Professor of Environment and Society

Mark.Brunson@usu.edu

Emily A. Price

Graduate Research Assistant

Emily.Price@usu.edu

Utah State University

Logan, Utah

Abstract: Small-acreage landowners are a challenging audience for Extension because they can differ from traditional clientele in knowledge levels, management goals, and information use. To reach this growing audience, it is important to understand the information-use patterns and delivery preferences of this clientele. We surveyed small-acreage owners in four Utah locations chosen to represent a range of physical environments, exurban growth patterns, and land-use histories. While response patterns differed among regions, most respondents relied on social contacts for information more than on Extension. In contrast to previous studies, they showed a strong preference for Web-based information.

Introduction

Extension professionals face special challenges in serving small-acreage owners. These landowners often engage in small-scale versions of the same land uses as their farmer, rancher, or forester neighbors, and so can benefit by the kinds of information Extension has provided to other rural clients for a century. Yet this audience may not use the same information pathways as traditional clients (Bardon, Hazel, & Miller, 2007; Kuhns, Brunson, & Roberts, 1998), and Extension personnel themselves may feel less comfortable working with non-traditional landowners (Fortmann, 1990). Therefore, it is important to understand the information use patterns and delivery preferences of this growing segment of the Extension audience.

Small acreage owners may have especially great need for information about the best ways to manage their land. They are often said to be less knowledgeable about land management than other owners (e.g., Ehmke & Mount, 2007; Rowan, 1994). While just as likely as other landowners to seek advice from friends or relatives (Kuhns et al., 1998), they often are socially disconnected from agricultural producer neighbors who could provide locally useful information (Yngvesson, 1993). Therefore, they may lack access to credible alternative information sources besides Extension.

However, small-acreage owners also are harder to reach with Extension information. A recent Oklahoma study found that two-thirds of limited-scale landowners did not use Extension (Cartmell, Orr, & Kelemen, 2006). A study of forest landowners in Indiana and Utah (Kuhns et al., 1998) found that owners of smaller properties were less likely to use Extension materials or to contact a county agent. The same held true for owners who self-rated their own knowledge about forestry as low to moderate.

Poor management is not an inevitable consequence of population growth (Fortmann & Huntsinger, 1989). However, when mismanagement or non-management does occur, the results can negatively affect not only the owners' own properties but also adjacent public lands (Maestas, Knight, & Gilgert, 2002), neighboring ranches (Neill et al., 2007), and the larger landscapes in which the properties are embedded (Wacker & Kelly, 2004). Accordingly, many agriculture and conservation advocates seek to slow the conversion of ranch properties into so-called "ranchettes" to protect rural biophysical and cultural environments (Brunson & Huntsinger, 2008).

Such efforts notwithstanding, low-density exurban subdivision is the fastest-growing form of land use in the United States (Brown, Johnson, Loveland, & Theobald, 2005). Such growth takes two forms: urban fringe development in counties adjacent to metropolitan areas, where commuting to an urban workplace is feasible, and amenity development in locations of high scenic, recreational, or cultural value (Brunson & Huntsinger, 2008). The phenomenon is especially notable in western states, where nonmetropolitan growth between 1990 and 1997 was three times that of the rest of the country (Cromartie & Wardwell, 1999).

To better understand how small-acreage owners currently obtain land stewardship information and how they would like to receive it, we surveyed small-acreage owners in areas of rapid exurban population growth in Utah. Study locations encompassed both urban fringe and amenity growth patterns, and a spectrum of environments, including Great Basin desert, Rocky Mountain valleys, and Colorado Plateau canyons.

Methods

A six-page survey was mailed in April-June 2008 to owners of 2- to 50-acre parcels. Survey recipients were identified using a geographic information system (GIS) developed from county tax assessor files. The survey asked about land tenure, management practices and decision factors, benefits of land ownership, information sources and preferences, and socio-demographic information. This article is based primarily on results of the latter two portions of the survey.

Study locations were areas known to have seen significant conversion to small acreage properties, in counties the U.S. Census Bureau estimates to be growing more than twice the U.S. average rate of 7.2% since 2000. To compare respondent characteristics with those of the area population overall, we sampled within "census tracts," a Census Bureau sub-county delineation.

- **Morgan**—This is one of Utah's smallest counties and the one with the highest percentage of private land. The study area included two census tracts covering the entire county, with small acreage owners concentrated in mountain valleys in the western half of each tract, closer to the urban economic center of Ogden. The 2007 estimated county population is 8,357, an increase of 17.2% over the 2000 Census.
- **Summit**—This mountainous county east of Salt Lake City, best known for the amenity resort of Park City, grew an estimated 19.5% in 2000-2007. Small-acreage growth has begun to spill over into our study area northeast of Park City. While some residents commute 35-50 miles over often-snow-covered highways to Salt Lake City, longstanding ranches persist as well. Populations at

the census tract level are not available, but the study area had a population of 4,190 in 2000.

- **Utah**—The state's second most populous county grew by an estimated 31.2% in 2000-2007, but until recently growth was limited to a suburban corridor centered on the city of Provo. Our study area lies across Utah Lake at the edge of the Great Basin desert. While the census tract population has more than quintupled since the 2000 count of 3,418 persons, most of that growth is suburban; our responses come from a zone of larger tracts a few miles farther west.
- **Washington**—Utah's southwesternmost county has become a recreation/retirement center, growing an estimated 48.1% to almost 135,000 persons between 2000 and 2007. Located at the boundary between the Colorado Plateau and Mojave Desert, about 20% of its residences are for seasonal rather than year-round use. Our study area bordering Zion National Park had 6,424 persons in 2000, but most small towns within it have doubled in population in the ensuing years.

From the original sample of 1,151 properties, we received 470 responses, with 22 surveys undeliverable, yielding a combined response rate of 41.6%. After excluding responses from persons whose total landholdings in multiple tax parcels exceeded 50 acres, we obtained a valid sample of 352 responses: Morgan, 107; Summit, 104; Utah, 35; Washington, 106. Comparison of respondent demographic characteristics with census tract data found only one difference: median income among respondents exceeded that of all four census tracts even after adjusting for inflation.

Results

As expected, we found differences in landowner and land use characteristics between study areas due to our deliberate selection of locations in both urban fringe and amenity counties featuring a range of biophysical conditions. Among the more pertinent ones for delivery of Extension programs were the following.

- A majority of Morgan and Utah respondents own 10 acres or less, while 50% or more of Summit and Washington respondents owned parcels of 11-30 acres.
- Only 40% of Washington respondents lived on their acreage compared to 88-95% from other study counties.
- Revenue-producing land uses such as livestock grazing, hunting, or mineral leases were significantly more important in Summit than elsewhere.
- Summit and Washington landowners averaged 6 years older.
- Summit respondents had lived longest on their properties, their families had settled in the county earlier, and they were more likely to have grown up on a farm or ranch. Morgan County was next highest in each of those categories.

Acquisition of Management Information

Respondents were given a list of possible information sources and asked to check any they had used to learn about managing their properties. Respondents in all study areas were most likely to obtain information from friends or relatives (Table 1). Extension printed materials and personal contact with Extension agents were next most important. The percentage of users who never looked for land management information was lowest in Summit to highest in Utah County.

Table 1.

Percentage of Landowners Who Use Various Sources of Land Management Information

Information Source	Morgan	Summit	Utah	Washington
Friends or relatives	49.5	45.2	34.3	37.7
Extension printed materials	31.8	34.6	22.9	29.2
Personal contact with Extension agent	24.3	37.5	20.0	23.6
Books from library	13.1	13.5	22.9	12.3
College or university specialists	10.3	13.5	2.9	7.5
Classes or workshops	11.2	9.6	5.7	6.6
Other	4.7	4.8	2.9	7.5
Do not seek land management info	29.0	26.9	40.0	34.9

Summit landowners were more likely to have contacted an Extension agent and to have sought advice from friends or relatives. Both findings reflect the longer tenure on Summit properties and probably greater social integration within the community. Property owners in Utah County, the county with the greatest percentage of landowners who work full-time off the property, used all sources least often except for library books and the Internet (see next section).

We also combined data from all study areas and compared responses based on property size (10 acres or less vs. more than 10 acres) and length of residence (10 years or less vs. more than 10 years). There were no differences based on property size, but longer-term residents were more likely to have consulted friends or relatives (50.7% vs. 38.9 for newcomers), used Extension printed materials (38.2% vs. 28.7), and contacted an Extension agent (41% vs. 18.5). They were only half as likely to say they were dissatisfied with current information sources about land management (6.3% vs. 12.5 among more recent arrivals).

Use of Internet Resources

We included two separate questions about use of Internet resources. One asked about the frequency of respondents' use of Web-based information sources; the other asked about the speed of their primary Internet connection. Overall, a majority of respondents had used the Internet at least once to get management information, though the percentages varied (Utah, 70%; Morgan, 56%; Washington, 49%; Summit, 46%). The former two counties have higher percentages of commuters, so it's possible that respondents are more likely to take advantage of high-speed connections at work. The time demands of commuting may also help to make Internet searches more attractive than other sources of information. When Internet non-users are

excluded from the analysis, there was a statistically significant ($\alpha = .05$) but very weak correlation of $R=0.14$ between connection speed and frequency of Internet use for management information. Newer residents were significantly more likely to have a very fast Internet connection but not more likely to use the Internet for management information.

Preferences for Information Delivery

When asked which sources of information they *preferred* to use, we found differences associated with study area (Table 2) but not with property size nor, with one exception, length of residency. The lone exception was that 55.6% of persons who had lived on their small acreage properties for 10 years or less wanted Web-based information, compared to 38.9% of longer-term residents. Overall, Internet resources were the preferred source in all study areas, although the strength of preference varied. Printed materials of the sort produced by Extension professionals were next most preferred, except in Utah County, where one-third of respondents would like personal assistance from an Extension agent.

Table 2.
 Percentage of Landowners Preferring Different Information Sources

Information Source	Morgan	Summit	Utah	Washington
Internet	47.7	39.4	60.0	45.3
Printed brochures or fact sheets	38.3	37.5	28.6	40.6
Periodic newsletters	36.4	36.5	20.0	30.2
Personal assistance from agent	16.8	18.3	34.3	18.9
Classes or workshops	19.6	20.2	11.4	10.4
Demonstration sites	10.3	11.5	17.2	11.3
Books from a library	3.7	4.8	5.7	7.5

Discussion and Implications

Previous authors (Cartmell et al., 2006; Kuhns et al., 1998; Salmon, Brunson, & Kuhns, 2006) have suggested that small acreage landowners tend not to use Extension resources to obtain information about managing their properties. This study adds support to that contention, as fewer than one-third of respondents indicated they had used printed materials from Extension. Even fewer—except in Summit, where more respondents have traditional agricultural objectives for their land—reported personal contact with an Extension agent.

This doesn't mean small acreage owners don't want the information Extension provides, but they are most likely to get it through social contacts, likely affecting the quality of information obtained. Recent arrivals are least likely to have used Extension materials and also most likely to express dissatisfaction with the information they're getting. We believe this reflects a lack of awareness about resources available from Extension or other potential providers.

Shifting our attention from how landowners get their information to how they *want* to get their information, perhaps the most striking finding is the preference in each study area for Web-based products over all other sources. This reflects a gradual shift in how all Americans—but perhaps especially the urban migrants who comprise a large percentage of small acreage owners—use information. In a 2001 survey of residents in four western states on use of information about wildfire risk reduction, barely a third had been exposed to Web pages on related topics, compared to 73% who had seen brochures. Web pages were rated less trustworthy and less helpful than other asynchronous delivery methods (Toman, Shindler, & Brunson, 2006). By 2004, a survey of Utah forest landowners found that slightly less than half (46%) wanted management information from the Internet (Salmon et al., 2006). In the present survey more than half had already used the Internet to get management information.

This trend is most pronounced in the Utah County study site, where exurban population growth is most recent, landowners are most likely to hold full-time jobs in town, and no respondent had grown up on a farm or ranch. These findings are consistent with those of Bardon et al. (2007), who found that forest landowners wanting Web-based information were younger, more likely to hold white-collar occupations, and had shorter land tenure. In areas of rapid exurban population growth, the influx of landowners is increasingly likely to come from this demographic sector, suggesting that demand for Internet-based information on small acreage management will continue to increase in coming years.

We also wish to call attention to the noteworthy number of differences we found in information uses and preferences, even within a single state. When people make a significant investment in rural land, they choose properties they believe will meet their needs: Some want scenic or recreational amenities, others a pleasant place to retire, still others a rural refuge within commuting distance of the city. The information they seek reflects this diversity in ownership benefits and objectives.

Most of us are accustomed to looking in different places for different sorts of information. Landowners may associate Extension with certain types of knowledge, especially related to traditional land uses and skills. To reach this increasingly important audience with a wider range of information, it will be important for Extension providers to use multiple pathways when designing and disseminating outreach products.

The prospect of creating new information pathways for an increasingly diverse audience can be daunting in a time of tightening budgets and increased competition for resources. Costly printed materials and field visits cannot be abandoned while demand remains strong, though the need is likely to diminish over time. Meeting a growing demand for electronic delivery requires initial investments in hardware and software, as well as information technology staff at state or multi-county levels. However, the investment should pay off as we learn how to make best use of information-sharing consortia and tools such as eXtension or Rangelands West (Henzel, Hutchinson, & Thwaites, 2006). Finally, strong interest in land stewardship among well-educated small-acreage owners suggests they are a fertile source of volunteer assistance with information gathering and dissemination (McReynolds & Howery, 2001; Tidwell & Brunson, 2008).

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