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Perceptions of Aging-Friendly Community Characteristics: Does County Rurality Make a Difference?

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Abstract

"Aging-friendly" communities are environments where people can live their entire lives rather than having to relocate because of age-related changes. The objective of this study was to investigate the extent to which middle-aged, long-term residents in Wisconsin perceived their communities to be aging-friendly, and to determine whether these perceptions varied according to county rurality. Rurality was measured using the Index of Relative Rurality, and is based on four dimensions: population, population density, extent of urban area, and remoteness. The Index of Relative Rurality was combined with the USDA urban influence code to categorize counties into the following spheres: the "Metropolitan Sphere", the "Rural-Metro Interface", and the "Rural Sphere". It was hypothesized that persons residing in metropolitan counties will be more likely to perceive that their communities have aging-friendly characteristics than those residing in rural counties, and this will be particularly true with regard to characteristics related to transportation and health care services. The hypothesis was supported. Respondents residing in metro and rural-metro counties perceived a higher prevalence of aging-friendly community characteristics than those in rural counties, particularly with regard to transportation, health care services, and community connectedness.

Introduction

"Aging-friendly" communities are environments "where people can live their entire lives… rather than having to relocate and thereby lose the social capital that has accrued over a lifetime… simply because they are experiencing the expected personal changes that come with age" (Scharlach, 2009, pg. 6).[1] The research reported in this paper centers on residents' perceptions of the extent to which their communities possess aging-friendly characteristics. The study was guided by the question of whether these perceptions vary according to the degree of rurality of the county/community in which the resident lives. That is, does rurality make a difference?

Background

Interest in creating aging-friendly communities is being fueled by population aging, both nationally and globally (World Health Organization, 2007)[2]; a trend that will accelerate during the next 30 years with the aging of persons born between 1946 and 1964 (i.e. the "baby boom" generation). Presently, about 40 million Americans are age 65 or older, and constitute a little over 13% of population. However, by 2035 the U.S. Census Bureau projects that this number will double, and that more than one out of every five persons in the United States will be age 65 or older. Consequently, it is not surprising that the aging of America's population is among the topics highlighted in 2010 Census (Vincent & Velkoff, 2010).[3]

In discussing population aging, Rural America is often "center stage" because rural areas generally have a higher proportion of older persons than do urban areas (Rogers, 2002).[4] More so than is the case for urban areas, rural counties in the United States have experienced a significant increase in the percentage of older persons. This trend is graphically illustrated in Figure 1, which depicts the change in the proportion of persons age 65+ in rural U.S. counties from 2000 to 2009 (Gallardo, 2010).[5]

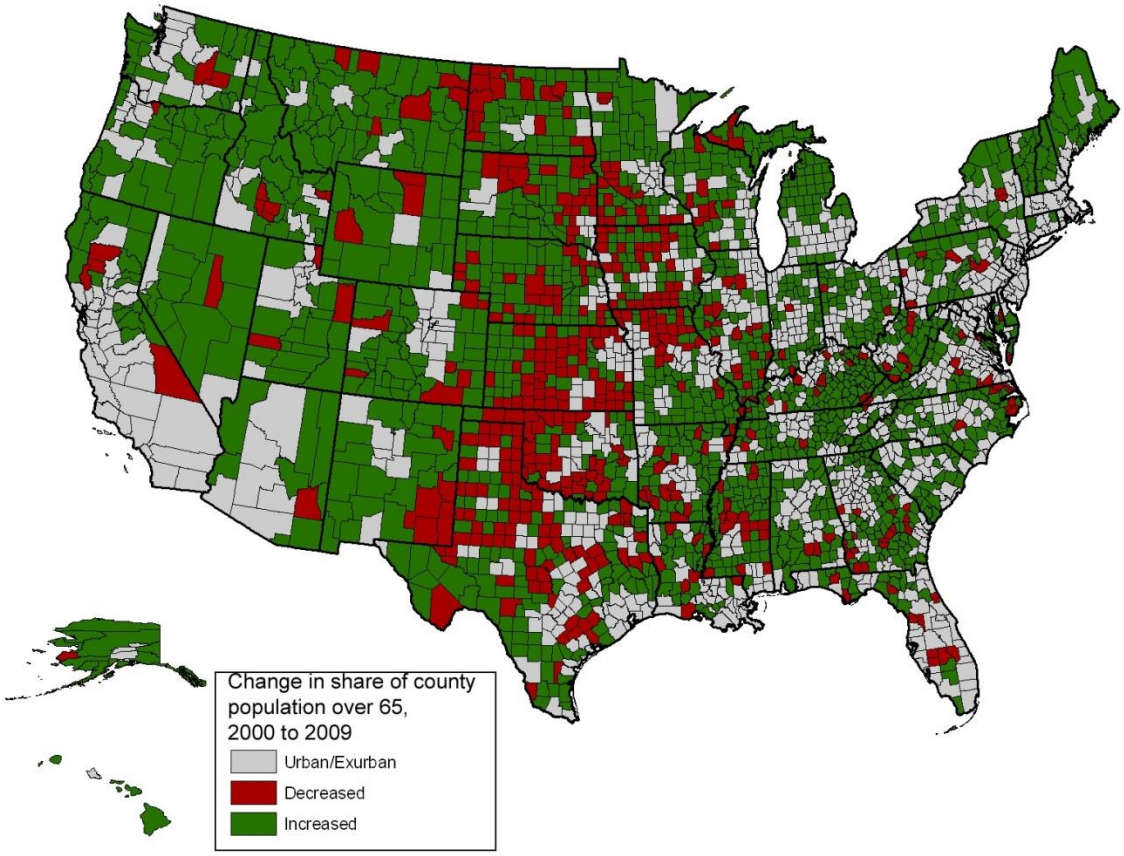

Figure 1. Change in Proportion of Population Age 65+ in Rural U. S. Counties: 2000 to 2009 (Gallardo, 2010)

In the context of fostering aging-friendly communities, it is important to observe that rural areas have different needs with regard to health care delivery, transportation, and access to social services (Austin, McClelland, Perrault, & Sieppert, 2009)[6]. For example, accessing health care services can be difficult in low-density, sparsely populated rural communities, which are often far from comprehensive, state-of-the-art medical care and facilities (Buczko, 2001)[7].

Methods

Hypotheses

The primary hypothesis addressed in the study was that rurality affects perceptions of community attributes. Specifically, it was hypothesized that persons residing in metropolitan counties will be more likely to perceive that their communities have aging-friendly characteristics than those residing in rural counties, and this will be particularly true with regard to characteristics related to transportation and health care services.

This hypothesis was predicated on the findings of a study by Schoenberg and Coward (1998)[8] wherein older persons residing in rural areas – more so than their urban and suburban counterparts – reported perceived barriers that diminished their use of community-based services. This hypothesis was also informed by the fact that over 250,000 people – many of whom are elderly - in the state where this study was conducted live beyond 15 miles of a hospital, all of them in rural census tracts, and most without major roadways.

A second hypothesis guiding the study was that residents in counties representing what Waldorf (2007)[9] has termed the "rural-metropolitan interface" will have perceptions that are more similar to metro than rural counties. The rationale undergirding this hypothesis centered on accessibility to metro amenities such as airports, shopping, medical facilities, employment and cultural opportunities. Metro areas also offer economies and a scale of human services from which nearby rural locations may benefit**.**

Data Collection

In 2011 and 2012, Cooperative Extension educators in Wisconsin led fifteen focus groups on the topic of the community-level impacts of population aging. Each session was initiated by the sharing of information on population aging (dubbed the "age wave" or "surge in seniors", etc.). Ensuing discussion centered on the impacts of population aging and the characteristics that constitute an aging-friendly community environment. Near the end of twelve of the fifteen focus group sessions, participants were invited to complete an Aging-Friendly Community Characteristics Survey (subsequently described in greater detail). In response, 174 participants submitted the survey (a 45% response rate). The study reported in this paper is based on the responses of 120 participants who identified both their township and county of residence. Almost 80% of the counties in Wisconsin were represented across the 120 respondents. The average length of time that survey respondents had lived in their community was 22 years. Although no demographic data were collected in the survey, focus group facilitators observed that the majority of the participants were women between the ages of 45 and 65.

Measurement

Rurality. The primary independent variable in the study - the degree of rurality - was measured at the county level using the Index of Relative Rurality [IRR] (Waldorf, 2007)[10]. The IRR is based on four dimensions: population, population density, extent of urban area, and remoteness. The Index is scaled as a continuous variable, ranging from 0 to 1, with 0 representing the most urban county, and 1 the most rural county. The most recent IRR county codes for the state in which the study was conducted were obtained from the Purdue Center of Regional Development (Personal communication, July 7, 2011).

To define the rural-metro interface, Waldorf combined the Index of Relative Rurality with the USDA (ERS) urban influence code, to yield seven levels that are jointly defined by rurality and metropolitan access, which are depicted in Table 1. Three codes fall into a category termed the "Metropolitan Sphere", three into the "Rural-Metro Interface", and one into the "Rural Sphere".

The number of respondents was fairly evenly divided across the three rural-metro categories (41, 47, and 32 respectively). Table 2 shows a geographical comparison of means with respect to county population and density, township size, and reported length of residence.

Perceptions of aging-friendly community characteristics. In developing a survey to assess resident perceptions of aging-friendly community characteristics, a variety of sources were used to compile a comprehensive list of traits deemed supportive of the needs of older persons and their families (e.g. National Association of Area Agencies on Aging & the MetLife Foundation, 2007)[11]. This search yielded more than 130 community characteristics, which were reduced to 89 items and organized around 13 subject areas:

1. Housing
2. Transportation and accessibility
3. Streets, parking, pedestrian crossings, sidewalks, etc.
4. Health care services and preventative screenings
5. Family caregiving
6. Nutrition and wellness
7. Employment and workforce development
8. Arts, culture, and life-long learning
9. Respect and social inclusion
10. Public safety and emergency planning
11. Community connectedness: Civic Engagement and Volunteer Opportunities
12. Taxation and Finance
13. Community Leadership and policies

The bulleted items below illustrated the aging-friendly characteristics listed under the area entitled Nutrition and Wellness.

- Residents easily find out about and participate in exercise and wellness programs.
- Nutrition classes or informational workshops for specific health and related financial needs are provided.
- Communal/congregate meals are hosted at recreation or senior centers.

- Home-delivered meals are available to older residents who are not able to attend congregate meal sites, or prepare their own meals.
- Exercise and wellness programs are tailored to specific health concerns (e.g. heart disease and diabetes).

Table 1. Definitions of the Rural-Metropolitan Interface Levels

Level	Definition	Location Relative to Metro Area	Degree of Rurality (using the IRR)
METROPOLITAN SPHERE			
A	Metropolitan central counties with a population of at least 500,000	Within	Low
B	Metropolitan central counties with a population of less than 500,000	Within	Low
C	Outlying metropolitan counties with IRR < 0.4	Within	Low
RURAL METROPOLITAN INTERFACE			
D	Outlying metropolitan counties with IRR >= 0.4	Within	High
E	Nonmetropolitan counties adjacent to a metropolitan area and IRR < 0.4	Adjacent	Low
F	Nonmetropolitan counties adjacent to a metropolitan area and IRR > = 0.4	Adjacent	High
RURAL SPHERE			
G	Nonmetropolitan counties not adjacent to a metropolitan area	Remote	High

Table 2. Comparison of Three Categories of Rurality Represented by Focus Group Participants

	Metro Sphere 16 counties (n = 41)	Rural-Metro Interface 31 counties (n = 47)	Rural Sphere 8 counties (n = 32)
Mean County Population	306,042	39,458	16,011
Mean County Pop. Density (per sq. mile)	744.94	54.15	16.32
Mean Township Population	82,246	7,666	3,307
Length of Residence (years)	22.59	21.91	21.55

For each area, respondents used a five-point response set to indicate how many of the associated characteristics they perceived are present in the community where they live: *1 = None of them; 2 = A few of them; 3 = About half of them; 4 = Most of them; 5 = All of them.* Hence, higher scores are indicative of a higher prevalence of perceived aging-friendly community characteristics.

Results

Relationship Between Rurality and Perceptions of Aging-Friendly Communities Traits

Table 3 displays the bivariate correlations between the IRR and aging-friendly ratings for each of the 13 areas. Recall that higher scores on the IRR indicate more rurality, and that higher "aging-friendly" ratings are indicative that a community is perceived to have more of the listed characteristics. The finding that all of the correlations were negative indicates that respondents residing in metropolitan counties tended to report higher aging-friendly ratings than did respondents living in more rural counties. As hypothesized, the highest correlations were in the areas of transportation (-.482), and health care services (-.636). There were three areas where the correlation was not significant: family caregiving, nutrition and wellness, and public safety/emergency planning. For the remaining areas, lower levels of rurality were associated with higher aging-friendly ratings.

Table 3. Bivariate Correlations Between the Index of Relative Rurality and Rating Scores for Aging-Friendly Community Characteristics

	Index of Relative Rurality
Housing	-.239*
Transportation and Accessibility	-.482*
Streets, Parking, Pedestrian Crossings, etc.	-.243*
Health Care Services and Preventative Screenings	-.636*
Family Caregiving	-.148
Nutrition and Wellness	-.128
Employment and Workforce Development	-.293*
Arts, Culture, and Life-long Learning	-.240*
Respect and Social Inclusion	-.276*
Public Safety and Emergency Planning	-.074
Community Connectedness: Civic Engagement	-.352*
Taxation and Finance	-.235*
Community Leadership	-.260*

* Correlation is significant at the 0.01 level (2-tailed).

Comparison of the Geographical Spheres of Rurality

Table 4 displays the results of a one-way between groups MANOVA, and indicates a statistically significant difference among the three levels of rurality on the combined measures of aging-friendly community characteristics: F (2,117) = 4.035, p = .001; providing support for both hypotheses. Residents of communities in metro counties gave higher aging-friendly ratings than did those in rural counties, and perceptions of residents in rural-metro interface counties were more similar to those in metro versus rural counties.

When the results of the ratings of aging-friendly community attributes in the 13 areas were considered separately, the only differences to reach statistical significance were transportation and accessibility: F (2,117) = 13.26, p = .001; health care services and preventative screenings: F = 29.07 (2,117), p = .001; and community connectedness F (2,117) = 7.83, p = .001.

Table 4. Means for Aging-Friendly Community Characteristics by Rural-Metro Level (Note: Means with same superscript are not significantly different from each other)

	Metro Sphere	Rural-Metro Interface	Rural Sphere	*F* (2,117)
Housing	2.78	2.55	2.41	1.57
Transportation and Accessibility	2.51[a]	1.74[b]	1.56[b]	13.26*
Streets, Parking, Pedestrian Crossings, etc.	2.56	2.06	2.38	2.74
Health Care Services/Preventative Screenings	3.34[a]	2.36[b]	2.38[b]	29.07*
Family Caregiving	2.78	2.53	2.56	.82
Nutrition and Wellness	3.10	2.81	3.06	1.23
Employment and Workforce Development	2.54	2.30	2.09	2.73
Arts, Culture, and Life-long Learning	2.73	2.40	2.50	1.37
Respect and Social Inclusion	3.00	2.57	2.50	3.43
Public Safety and Emergency Planning	2.95	2.57	2.88	2.14
Community Connectedness	3.20[a]	2.66[b]	2.47[b]	7.83*
Taxation and Finance	2.85	2.55	2.28	3.82
Community Leadership	2.66	2.28	2.19	2.70
n	41	47	32	

*Bonferonni adjusted alpha level of .003

Discussion

The findings reported in this study indicate that considerable effort must yet be expended in helping communities become more "aging-friendly," especially communities located in rural areas. That this effort is an ongoing one that requires continued effort by Extension educators is evidenced, at least in part, by the findings of 2005 national survey entitled: *The Maturing of America – Getting Communities on Track for an Aging Population* (National Association of Area Agencies on Aging, 2006[12], 2007[13]). This initiative involved 10,000 American communities, wherein a primary finding was that only 46% of the communities responding to the survey had begun to address the needs of a rapidly aging population. A 2010 follow-up survey, *The Maturing of America – Communities Moving Forward for an Aging Population,* found that this figure had not changed much. A final report of the second survey compared the findings with the 2005 survey and noted that "as a result of the severe economic challenges associated with the recession, most communities have been able only to 'hold the line' " (National Association of Area Agencies on Aging, 2011).[14] Because the recent recession has been particularly challenging for Rural America (Henderson & Ackers, 2009)[15], the findings from this study suggest that the goal of creating aging-friendly community environments in rural areas may be difficult to achieve, particularly in the areas of transportation/access, health care services/preventative screenings, and community connectedness.

End Notes: Barber, Clifton E. "Perceptions of Aging-Friendly Community Characteristics: Does County Rurality Make a Difference?" *Online Journal of Rural Research & Policy* (8.2, 2013).

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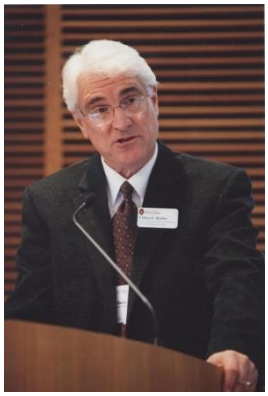

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