

Aging-in-place in small town North Dakota: a case study of Larimore

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Abstract: An important attribute of the increase in elderly population in the United States, particularly the Great Plains states, is aging-in-place, that is, the residential stability of growing old in a familiar location. Larimore, a rural-oriented North Dakota community with a substantial elderly population, serves as the focus of this case study. Data were gathered using the snowball sampling method. Data collection was designed to determine Larimore's specific elderly demographics, identify reasons for ongoing local residence, indicate if Larimore can be characterized as an aging-in-place location, and identify possible implications for the community. Preliminary results indicate that Larimore is aging-in-place with senior citizens having a range of reasons for remaining in the town including physical nearness to family and friends, owning property, place loyalty and economics. This initial study contributes uniquely to the literature on North Dakota's elderly population. It is anticipated that it will be a useful starting point for medical and social service providers, economic developers, and government leaders in Larimore and elsewhere because of the increasing significance of aging-in-place to quality of life.

Key words: *aging-in-place, small town, North Dakota, elderly, population*

Introduction

Aging-in-place is a term heard frequently in conversations regarding the elderly, including when dealing with reverse mortgages (NRMLA 2003). Graff and Wiseman (1978, 382) give a concise definition: "Aging-in-place denotes the process of cohort transition to increasing age and residential inertia." The definition of elderly includes those aged 65 years and older (He and Schachter 2003). Within the elderly, further specifications can be

made regarding age groups. According to Conway and Houtenville (2003), three age groups comprising persons of 65 to 74 years, 75 to 84 years, and 85 years and over can be used. Those aged 65 to 74 years often are referred to as the 'young old' or 'young elderly.' Individuals aged 85 years and over are known as 'oldest old' or 'older elderly.'

Aging-in-place studies are important for planning in a variety of regional economic sectors. Medical service providers, local governments and businesses will be impacted greatly by a large elderly population and will need information to make the best decisions possible about a wide range of issues for the future regarding these senior citizens. One recurring theme suggests that places with a growing elderly population, due to aging-in-place, will experience a decreasing tax base and an older population more dependent on medical services (Rogers and Woodward 1988; Lawler 2001). Litwak and Longino (1987) examined three potential moves in the aging process, the second of which involves moving closer to family for informal care and nurturing. When elderly persons reside already in their retirement location and also near to their families, this removes the need for changes in residence, thus another indication of aging-in-place.

There are many American studies focusing on the elderly population at the national and regional level (e.g., Graff and Wiseman 1978, 1990; Longino 1990; Plane 1992; Lawler 2001; Prince Market Research 2007). However, there is a lack of research focusing solely on North Dakota, and specifically rural North Dakota. Consequently, the community of Larimore (Figure 1) was selected as a case study to create a baseline from which to determine the extent to which it is aging-in-place and to establish how that process might be affecting the general quality-of-life in a particular rural part of the state according to these four research questions:

Question 1: What are the social and demographic characteristics of the elderly population of Larimore?

Question 2: Why do the elderly residents of Larimore choose to reside there? Does it have anything to do with attachment-to-place, homeownership, and/or close proximity to family members?

Question 3: Is Larimore aging-in-place? If yes, why?

Question 4: What are the implications for Larimore due to aging-in-place?

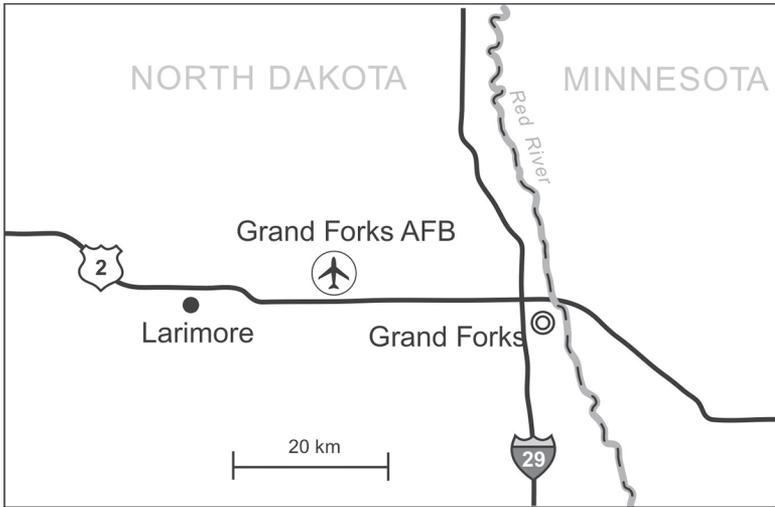


Figure 1: Location of Larimore, North Dakota.

Background to the Community of Larimore

Larimore is an agricultural community located in west-central Grand Forks County, North Dakota. It was founded in the summer of 1881 near the site of the Elk Valley Farm. Larimore’s namesake, Newel G. Larimore, was a grain commissioner and one of four men involved in the organization of the Elk Valley Farm (Larimore Centennial Committee 1981).

Since its beginning, Larimore has had its share of ups and downs in terms of population. Figure 2 shows change in the size of Larimore’s population from 1920 to 2000. Similar to other Midwestern towns, Larimore endured its most significant drop in population during the Great Depression of the 1930s. During the 1940s to the 1960s, the community experienced noticeable growth, adding approximately 800 people. This coincided with the construction of the Grand Forks Air Force Base in the 1950s (Grand Forks Air Force Base 2003).

According to the 2000 United States census, the population of Larimore is 1,433. Of this total, 289 (20%) are aged 65 and over, 748 (52%) are aged 18 to 64 years, and 396 (28%) are under 18 years. Figure 3 shows the population in five-year age groups; the elderly population forms a substantial portion of this population pyramid. A ‘bulge’ in the pyramid

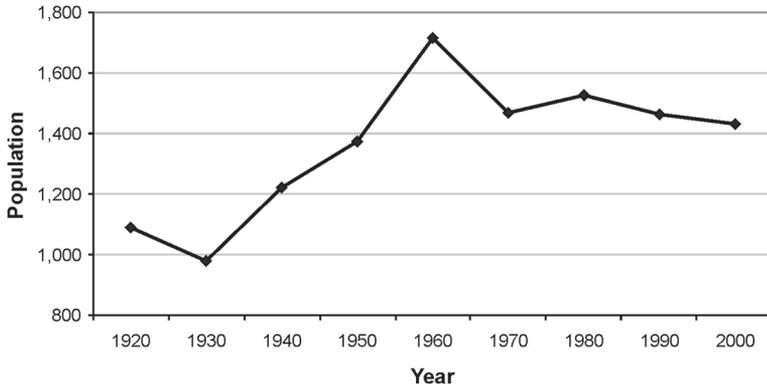


Figure 2: Change in Larimore's population, 1920 to 2000.

from 30 to 44 years reflects persons who live in Larimore and commute to Grand Forks Air Force Base. Conversely, there is a noticeable 'gap' in those aged 20 to 29 years. Presumably, these individuals have left in pursuit of college or employment opportunities elsewhere.

Currently, Larimore has several facilities intended to benefit senior citizens. The Good Samaritan Center is a nursing home associated with the Evangelical Lutheran Good Samaritan Society. This is a national organization that operates numerous nursing homes throughout the United States. There is also the Larimore Senior Center, a quasi-governmental agency which is located in the town's central business district. It serves as a gathering place for the elderly for subsidized meals, card games and other activities.

Methods

Data for the study were gathered through archival research, questionnaires and personal interviews. Archival data provided basic descriptive demographic characteristics of the community's aging population. Questionnaires and interviews were given and conducted that specifically focused on the issues of Larimore. Contacts were made through members of the Larimore Community Action Club and the Larimore Senior Center. This multi-methodology of statistical data, surveys and interviews generated several dimensions from which to analyze aging-in-place. More credibility is given to studies in which multiple methods arrive at similar conclusions (Hays 2004; Schutz *et al.* 2004).

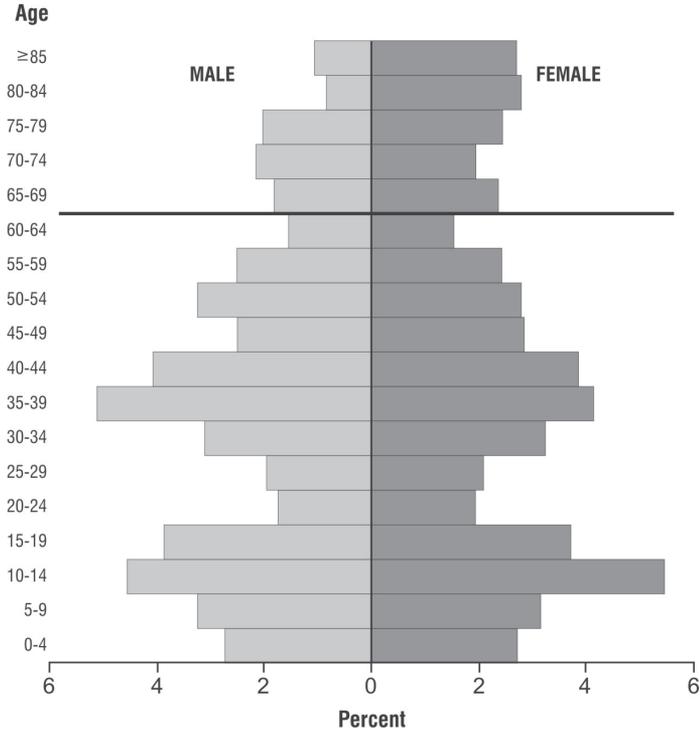


Figure 3: Population pyramid of Larimore, North Dakota.

Participants were selected based on the criteria of being over the age of 65 and residents of the Larimore community and were identified using the snowball method. “Snowball sampling, also referred to as network selection, involves, use of referral, ‘word of mouth,’ and other methods of identifying potential survey respondents through previously identified participants” (Hutchinson 2004, 292). Residents of nursing facilities were not surveyed or interviewed because their residence is generally not due to choice but that of physical limitation. Thus no responses for nursing home and assisted living facilities are presented in the data.

The Survey:

The survey questionnaire was designed with the target population in mind. Length, format and content frequently influence responses (Hutchinson 2004). Because the survey was intended for elderly persons, the length was kept short and the font was selected for readability. The survey consisted of 11 questions. Nine questions were structured with

specific answer choices while two were designed for more open-ended responses. Three questions enquired about demographic information (age, gender and marital status). Seven questions addressed aging-in-place and related issues such as homeownership, birth location, length of residence in Larimore, sense of community and proximity to family members. One question asked participants for comments on how Larimore could better serve its senior citizens.

The surveys were distributed on two separate occasions at the Larimore Senior Center in October 2006. Working with the Larimore Community Action Club, questionnaires were prepared for 40 citizens, the sample size deemed appropriate in this form of qualitative research. Twenty-two surveys were completed and returned, resulting in a 55 percent response rate.

The Interviews:

Interviews were conducted to supplement the questionnaires. Interviewing a limited number of individuals as a qualitative research methodology is considered an effective study tool in that it allows the researcher to amplify the themes discovered in the research. In this study, six elderly residents of Larimore were interviewed. Because this qualitative study focuses on Larimore, a small community, only a half-dozen residents aged 65 years and over were deemed necessary on the acceptable premise that a saturation point would have been reached starting with a seventh interviewee. Five of the six interviews took place in Larimore and, for the convenience of the interviewee, one was conducted in Grand Forks. Interviews gave participants the opportunity to give more detailed explanation as to why they chose to reside in Larimore.

The interview questions and length of interview were constructed in consideration of the target population. With a substantial range in age there was a need to accommodate those less physically able, as well as those without physical limitations. The 15-question interview was kept relatively brief with 11 questions being straightforward and four questions being open-ended. Interviews were conducted between November 2006 and January 2007 in Larimore and Grand Forks. Each interview took between 15 and 45 minutes to administer. Participants were contacted and signed informed consent forms. The interviews were recorded and transcribed from the audiotapes to allow more detailed investigation of the key themes that emerged during each of these visits.

Contact with Community Leaders:

To add an extra level of understanding to the implications of aging-in-place, two community leaders were contacted by e-mail correspondence.

These individuals were contacted because they are in a direct position to change and improve the quality of life for Larimore's elderly citizens. Similarly, no fewer than two and no more than three such representatives were required for this research before pertinent answers would become repetitive and redundant. The questions addressed to community leaders were intended to ascertain two things: first, what initiatives were planned to continue to meet the needs of senior citizens; and second, to determine whether the responses of community leaders matched with seniors' expectations of what they would like to see in Larimore. The responses given by community leaders are presented under research Question 4 as they contribute to determining the implications of aging-in-place.

Discussion

The findings from the surveys and interviews are presented according to the four key research questions that were addressed as per the protocols of this type of human geography qualitative research.

Question 1: What are the social and demographic characteristics of the elderly population of Larimore?

Table 1 presents the social and demographic characteristics of the survey group. Eleven (50%) respondents were aged 65 to 84 years, and eight (36%) were aged 85 years or over. Three (14%) respondents identified their age as under 65 years. Seventeen (77%) respondents were female, four (18%) were male, and one (5%) did not indicate gender. Respondents were overwhelmingly either married (41%) or widowed (41%).

Nineteen (86%) respondents had lived in Larimore for more than 20 years. Of these, six had lived in Larimore for over 50 years, thereby reflecting length of residency as an aging-in-place measure. Seventeen (77%) respondents were homeowners whilst four (18%) were renters. No one identified a nursing home or assisted living facility as their living situation.

All interview participants were married and all indicated that they owned their home. Four interviewees were born outside of North Dakota, while two were born within North Dakota. All had moved several times in their lifetimes, with four relocations being the minimum and 11 being the maximum number of migrations. All interviewees had lived in Larimore for a substantial amount of time, with the range being from 18 to 40 years.

Table 1: Demographic survey results.

	Responses (n = 22)	Percent of Responses*
Gender		
Male	4	18
Female	17	77
Not indicated	1	5
Age		
Under 65	3	14
65-74	5	23
75-84	6	27
≥ 85	8	36
Living Situation		
Homeowner	17	77
Renter	4	18
Nursing Home Facility	0	0
Assisted Living Facility	0	0
Other	1	5
Marital Status		
Married	9	41
Widowed	9	41
Divorced/Separated	2	9
Single	1	5
Widowed and Divorced/Separated	1	5
Born in Larimore		
Yes	3	14
No	19	86
In North Dakota	9	41
Out of North Dakota	9	41
Not Indicated	1	5
Years Lived in Larimore		
0- 5	1	5
6-10	1	5
11-20	1	5
21-30	8	36
31-40	3	14
41-50	2	9
> 50	6	27

*Percentages have been rounded and may not sum to 100%

Question 2: Why do the elderly residents of Larimore choose to reside there? Does it have anything to do with attachment-to-place, homeownership, and/or close proximity to family members?

Reasons for residing in Larimore included attachment-to-place, homeownership, and proximity to family (Table 2). When asked if they felt Larimore was their home, twelve (55%) respondents strongly agreed and six (27%) agreed. Only one (5%) respondent disagreed. Nineteen (86%) agreed or strongly agreed when asked if they felt part of the community. Again, only one (5%) person disagreed. Twenty (91%) respondents said “yes” when asked if they identified with the lifestyles and values of the people who live in Larimore. Only one (5%) disagreed. One individual selected “yes” and “no”, commenting, “Yes, because people care for and help one another. No, none with similar religious beliefs.”

Table 2: *Aging-in-place general survey results.*

	Responses (n = 22)	Percent of Responses*
Do you feel Larimore is your home?		
Strongly Agree	12	55
Agree	6	27
Neutral	3	14
Disagree	1	5
Strongly Disagree	0	0
Do you feel that you are part of the community?		
Strongly Agree	8	36
Agree	11	50
Neutral	2	9
Disagree	1	5
Strongly Disagree	0	0
Do you identify with the lifestyles and values of the people who live in Larimore?		
Yes	20	90
No	1	5
Yes and No	1	5

*Percentages have been rounded and may not sum to 100%

Survey respondents selected a variety of reasons for staying in Larimore (Table 3). The common themes that emerged were centred on both familiar surrounding/sense of belonging and owning their home. Over half of the respondents checked friends, family members living nearby, community, and medical and social services as reasons for staying in Larimore. Other factors cited included the cost of living outside of Larimore being too expensive, enjoyment of recreation activities, relocating would be too costly, and the weather/climate. Employment and involvement with agriculture were among the least selected reasons for living in Larimore, reflecting local conditions. Just one person noted that the Larimore real estate market was not favourable for selling their home. All respondents had family nearby and all replied that family members, mainly children and grandchildren, were a big part of why they elected to remain in Larimore.

Not surprisingly, attachment-to-place, homeownership and close proximity to family and friends quickly emerged as predominant themes. Questions 7 to 9 of the survey were asked to determine if respondents felt an attachment-to-place. The vast majority of respondents replied that they agreed or strongly agreed to these questions, indicating a strong sense of place attachment. Only one respondent did not feel a part of the community. This respondent had the shortest time of residence in Larimore of all survey respondents. By comparing this individual with those who have lived in Larimore for a substantial length of time, it suggests that

Table 3: Ranking of reasons for aging-in-place.

	Responses (n = 119)	Ranking	Percent of Responses
You stay in Larimore because...			
(Check all that apply)			
Familiar surroundings, sense of belonging	17	1	14
You own your own home	17	1	14
Friends	14	3	12
Family members live nearby	12	4	10
The community	11	5	9
Medical and social services	11	5	9
The cost of living is more expensive outside Larimore	10	7	8
Enjoy recreational activities	9	8	8
Relocation would be too expensive/costly	6	9	5
Weather/climate	4	10	3
Employment	3	11	3
Born and/or raised here	2	12	2
Involved with agriculture	2	12	2
The Larimore real estate market is not favourable for selling your home	1	14	1

there is a time component to attachment-to-place. The longer a person lives in a location, the greater the place attachment; the less time a person has lived in a location, the less attachment-to-place.

As mentioned above, homeownership, also an aspect of place attachment, was a dominant theme. In Question 11 of the survey, 17 (77%) respondents indicated that owning their home was a part of why they chose to remain in Larimore. This finding is similar to other reported research (Rowles 1993; Lawler 2001).

Another significant reason for staying in Larimore was that of the close proximity to family and friends, also a facet of attachment-to-place. Survey and interview respondents alike answered that a major part of why they chose to reside in Larimore was because their friends and family were close by. Other researchers also have found that family and history create strong ties to a location (Rowles 1993; McHugh and Mings 1996).

In addition to the time and place components associated with aging-in-place, economic factors appeared to be important in deciding to remain in Larimore. Ten (45%) of the 22 survey respondents felt that the cost of living outside of Larimore was too costly. Similarly, six (27%) respondents felt that relocating would be too costly. While these responses were not expressed as strongly as those related to family and friends or attachment-to-place, they do suggest that financial conditions definitely influence retirement choices.

Question 3: Is Larimore aging-in-place? If yes, why?

Larimore can be considered aging-in-place based on the length of residency. As mentioned previously under Question 1, the majority of questionnaire respondents had resided in Larimore for 20 years or more. From these, six (27%) had lived in Larimore for more than 50 years. This is a substantial indication that Larimore's senior citizens are choosing to remain through their older years, thus aging-in-place. Combining age ranges with length of residence (Figure 4) shows that there is a good chance that the older a person is, the longer they have lived in Larimore. Such descriptive demographics indicate a trend of aging-in-place.

When asked if they would choose to retire in Larimore, all respondents stated that they currently were retired or probably would retire in Larimore. One respondent indicated that Larimore would likely be "the hub" for family and family gatherings. All interviewees replied that they were not planning to move in the near future. Another respondent, looking to future stages of life said, "Physically, when we can't live in this house anymore, then I would assume we're going to move somewhere in Larimore that we can afford."



Figure 4: Years lived in Larimore classified by age of survey respondents.

Homeownership was a predominant trend. Seventeen (77%) survey respondents owned their homes, while all interviewees were homeowners. This finding is similar to other research (Rowles 1984) which indicates that the majority of elderly own their homes. Long-term homeownership reflects a stationary living situation. For the future, when older persons change their living situation due to the physical limitations of aging, there will be more available housing stock locally. Homes could become residences for younger elderly persons, or for non-elderly in-migrants who could be employed in services supporting the elderly. It also means that there will be a need for more care facilities in the near future and the employees to staff these facilities. Consequently, the aforementioned housing stock could house those staffing facilities such as the Good Samaritan care facility.

Question 4: What are the implications for Larimore due to aging-in-place?

Interviewees were asked what they would like to see in Larimore for the elderly that the community currently does not have. Better access to transportation arose as a common theme. Three interviewees mentioned that an affordable taxi service was needed, even just within Larimore to provide transportation to the Senior Center. In a related response, two interviewees expressed the desire for home delivery of the mail.

Another common thread was encouraging more community involvement. One interviewee wanted seniors to be more active within the community, while another saw a need for more involvement at the Senior Center. One interviewee wished that there were more cultural events for the overall community.

A ready response from one interviewee was the need for a learning centre where seniors could exercise or take classes. The same person saw a need for a location where seniors, or anyone without a computer, could access the internet. The library was suggested as a good location. This interviewee also felt that there was a lack of affordable housing for seniors.

In a similar question, senior citizens were asked to identify the advantages and disadvantages of their current location. A common positive response among interviewees was that Larimore was a small community in which everyone knew each other and that residents were caring and would assist each other. Another frequent favourable response noted, that as a more secluded location compared to Grand Forks, Larimore was low in crime and residents presently do not worry about break-ins like they might in Grand Forks.

Interviewees appreciated the fact that they could live in a small community with its own amenities, including a general practice physician, and still be close to a major population centre to take advantage of the amenities it offered such as major medical facilities and entertainment opportunities.

In addition to the advantages, interviewees also mentioned a few disadvantages about Larimore. One interviewee missed the shops and restaurants that have closed down. Closely related to this, another individual mentioned that it was a disadvantage in having to travel farther to buy things and that the price of gas made it even more inhibiting. This made it difficult for seniors who had little or no transportation. Another comment noted there was only one grocery store in town and because of this there was no competition in pricing.

Interviewees also were asked if they identified with the lifestyles and values of the people who lived in Larimore. For the most part, all but one interviewee agreed in response to the question. One person reflected overall sentiments by noting that lifestyles in Larimore were centred around the churches and with high school and grade school sporting events.

The final interview question asked interviewees if they would be willing to invest more time or effort to make Larimore an even better place. One hundred percent of those interviewed agreed that they would be willing to help improve and make Larimore a better place to live. One said it best, "Sure, why not? Nothing's going to get done if no one's going to step out and do it. . . ." This was echoed in terms of deeds as one interviewee

and a second interviewee's spouse were involved with beautification of various locations around Larimore, including one of the cemeteries, the local museum's grounds, and a playground.

As a follow-up to the above interviews, each community leader was asked several questions including *What do you have planned for the elderly of Larimore?* One of the two respondents wrote that currently "the City is not working on any projects directly." However, this individual did highlight the senior centre and its social opportunities. Also mentioned was the Good Samaritan Center and the fact that it is in the process of constructing independent living apartments for seniors hoping to downsize their living situations. The second community leader responding to this question was more closely affiliated with the Good Samaritan Center and, therefore, provided greater detail as to what the agency is planning for senior citizens.

The second question involved asking the community leaders if the elderly were actively involved in planning and decision-making processes. One respondent said "no" regarding general city business, but that they would be at the senior centre if they were members. The second respondent also mentioned the senior centre and that it has a functioning executive board. For the Good Samaritan Center there is a resident council that is asked for input and there is an advisory board which consists of community members, most of whom are senior citizens.

Community leaders were queried as to whether there are plans to attract younger persons. As noted by one respondent, "It is always on the minds of the City and businesses." The community wants to draw in more families, as the schools and churches need new people to continue to exist. The second respondent personally felt that the community did not keep its young people and hoped this could be reversed with more professional jobs. In relation to the Good Samaritan Center, there were no plans to attract younger cohorts. This respondent said that the average age of Good Samaritan residents was over 80 years.

Community leaders also were asked if they identified with the lifestyles and values of the people who lived in Larimore. Both respondents gave positive answers. One stated "Most definitely," and, that while it is a rural area, it is a diverse population and that neighbours look out for each other and help one another. The other respondent answered in terms of the Good Samaritan Center whose employees and administration strove to provide services and surroundings that would make the residents feel comfortable and at home.

The final question posed to community leaders asked if they would be willing to invest more time or effort to make Larimore an even better place. Again, both respondents replied positively, that they wanted to

improve Larimore. In the words of one, “We need to determine priorities, and get started!”

Responses and comments from senior citizens and community leaders clearly demonstrated the care they have for their community. All stated they were willing to contribute to Larimore and make it a better place. The various groups of the community, including the Larimore Senior Center and the Larimore Community Action Club, were active in working to improve the quality of life for its residents.

Conclusion

Larimore certainly would be considered aging-in-place based on the responses from the surveys and interviews. One significant indicator was that all interviewees stated that Larimore is to be their retirement location. Even those still working foresaw remaining in Larimore for their retirement. Many survey respondents were well into their retirement years and had already lived in Larimore for a substantial amount of time, thus a strong indication that Larimore is aging-in-place. The findings show that there is a good amount of longevity among the elderly population of Larimore. Also, the baby-boomer generation is represented here and that means there will be a substantial elderly population for years to come. This same population will impact the local economy in a positive way because they will continue to need goods and services. Further evidence of aging-in-place includes the majority of responses that convey attachment-to-place, including close proximity to family and friends, strong ties to the community and homeownership.

The phenomenon of aging-in-place will certainly have an impact on the community of Larimore. The nursing and medical facilities must continue to expand and meet the needs of the senior citizen population. One survey respondent commented that there was a need for more smaller-sized, more manageable apartments. Responses from community leaders indicated that this was in the process of taking place. In addition, these facilities will continue to employ the needed staff, thus resulting in jobs for the community.

While the community is meeting the needs of the elderly in this sector, there is still a need for a ride or taxi service within Larimore and to Grand Forks. This is an important concern that needs to be addressed in a future study because those in their younger retirement years will continue to age and need such service. Another implication seen in the data is toward the elderly social scene itself. Numerous comments were received expressing the desire for more involvement at the Senior Center from fellow senior

citizens. Other sentiments expressed a desire for cultural events and a learning facility where seniors could go for classes, crafts and internet access.

There is and will be a significant elderly population in Larimore for years to come. Services for this population, such as medical and social, should be a priority of community leaders. Medical facilities must be maintained and grow to provide care and services at the level needed. To this point, community leaders indicate that the local nursing facility is accomplishing this task.

This study can be an effective pattern for future work to gain consequential results. Any part of this study, including research questions, methods, surveys and interview questions, could be adapted to meet the needs of a future study. Such work could include looking at other rural North Dakota communities. If one wished to look further into Larimore, the town's proximity to the Grand Forks Air Base could be a component of the research. Perhaps Larimore is unique due to proximity to a military base, as compared to other rural communities.

The findings of this research may be of use to community leaders or government agencies as they continue to work to provide services to the elderly population. By knowing if a community is considered aging-in-place, community leaders can better plan for the future. Also, by knowing the concerns and suggestions of elderly residents, leaders can make plans tailored to a specific community or region.

Aging populations will continue to be a significant part of North Dakota's population. Given North Dakota's population shift towards an aging population, this will continue to be a concern for local and state leaders. While it may be seen as a tremendously difficult challenge to serve the aging-in-place population of the state, there is room for optimism. Local community leaders and community groups will continue to strive to provide services and care for their senior citizen residents. The senior citizens themselves will continue to provide friendship and support to each other in their communities. These seniors have lived and thrived in the less than hospitable environment of North Dakota. The younger residents of North Dakota should consider it a privilege to assist and improve the quality of life of these senior citizens.

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