EXPLORING ROOTEDNESS IN THE VERY RURAL GREAT PLAINS COUNTIES OF KANSAS AND NEBRASKA

by

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B.A., Kent State University, 2001
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AN ABSTRACT OF A DISSERTATION

submitted in partial fulfillment of the requirements for the degree

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Abstract

The population of the American Great Plains has grown steadily but unevenly. While metropolitan areas − primarily on the peripheries of the Plains − have expanded, significant interior portions have experienced decades of outmigration and the challenges that accompany the exodus. Geographers have explored the interplay between rural population loss and service consolidation, the many reasons people leave, the age-specific dynamics of those leaving, and the varied strategies being employed at different scales to coax people back. The vantage point of the residents who remain in emptying spaces has received little attention, however.

Grounded theory guided a sequential mixed method approach to gain a better perspective on the aspects of place that contribute to an individual's rootedness in the most rural and depopulating portions of the central Great Plains. Questionnaires were mailed in 2015 to 1,000 randomly-sampled households in ten counties of Kansas and Nebraska. Counties were selected on the most rural USDA ERS Rural-Urban Continuum and Urban-Influence Codes, ERS typology identifying population loss, and the most geographically-remote USDA Frontier and Remote Area designation. Focus groups were conducted after the mailed questionnaires in the county seats of three of counties that received the mailed survey.

Correlation and contingency analyses were used to explore relationships within the closed-ended questionnaire responses for statistical significance. Open-ended responses provided depth to the closed-ended material. Results of the focus groups provided rich qualitative data that triangulated with quantitative results and offered a holistic view of the aspects of place encouraging someone to remain in a depopulating region.

The elements of place encouraging rootedness were similar between the responses on the mailed questionnaire and those from the participants in the three focus groups. Rootedness was

most associated with a sense of belonging. Rooted respondents also indicated that they felt good about where they live. In addition, many rooted individuals perceive themselves to be insiders in the community and view community spirit to be strong. Questionnaire results suggest that being involved with the community had a positive relationship with levels of rootedness. Rooted respondents were also more likely to perceive the visual appearance of their nearby surroundings favorably. A significant concern was the need for more vocational services within the focal study counties. A lack of sufficient trained individuals was seen as a reflection of institutional fast-tracking of students out of the area combined with a lack of support for motivating young people to apply their skills locally.

Communities within the study area are not in danger of disappearing anytime soon, but their populations' continued downward trajectory undermines their viability over the long term. Strategies like a shift in local educational approaches and inclusive activities aimed at those more likely to leave may encourage new roots to be put down or nurture roots to grow deeper, thus helping to curb outmigration.

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I would also like to thank my family. All of you were incredibly supportive throughout my time as a "permanent student," even if you weren't always quite sure what I was talking about sometimes. Sometimes I wasn't sure either. Thanks for all of your love, encouragement, gift packages, and periodic reminders that there is a forest out there among all these trees.

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To the residents of the Central Great Plains I have had the privilege to interact with, I am wholeheartedly appreciative. Thank you for your hospitality and willingness to share stories freely. There are too many to name that have aided me over the last few years in a multitude of ways, but the heart of this work would have been impossible without your devotion to the well-being of your communities. There is not enough coffee and pie to ever communicate my thanks.

And finally, to the nagging voice of doubt in my head: eat your heart out.

Dedication

This work is dedicated to my wife. Thank you for always being a guiding light home. You continue to be a constant source of calm, and while working on this dissertation I was reassured every day that I could find solace beside you no matter what kind of a day I faced. Thank you for keeping the day-to-day running smoothly in the background; shouldering the burden of all of the little things made a huge difference and did not go unnoticed. A lot of the work in this dissertation made me think of you: you're from a very rural part of North Dakota, your graduating class in a consolidated school system was fewer than 30 people, your family passes down recipes that are generations old by memory, family card parties are always accepting of my subpar pinochle abilities, and your mom grabbed the phonebook and started highlighting names of people that *had* to be invited to our wedding. I love small towns because I love *you*. I want to keep them viable because I know the kinds of values and traditions that shaped you are the same forces out there now in some endangered places, Oliver County North Dakota not the least of them. Very small towns are important because they produce people like you, which this world cannot do without. In many ways this work is an extension of my feelings towards you and the memories we've made out there on the windswept prairies west of Bismarck. From the bottom of my heart, thank you.

Preface

Walter Kaufmann (1978, 69) reminds us:

> Nowhere is the disproportion between effort and result more aggravating than in the pursuit of truth: you may plow through documents or make untold experiments or think and think, forgo food, comfort, and distractions, lie awake nights and eat your heart out – and in the end you know what can be memorized by any idiot.
>
> What is the alternative? To suffer the tyranny of arbitrary falsehood and deception. Many truths cease to seem trite as soon as one views them as triumphs over prejudice, indifference, and dishonesty. To teach a truth without giving others some experience of the quest, the passion, and the heartbreak is a crime; for it makes men prey to that callow contempt for correctness which is the bait of error.

Chapter 1 - Introduction

The first time I was overwhelmed at the immensity of open space was just about 30 miles north of Fargo in the Red River Valley. I pulled over at the northbound service plaza on Interstate 29 and unsuccessfully tried to capture the scene with my phone's camera. Coming from the rolling hills of Northeast Ohio, I am no stranger to pastoral scenes, but this was a whole different scale of rural. I immediately loved it; I felt free, self-sufficient, and more connected to the land than I had ever been. Montana lays claim to "Big Sky Country," but I contend to this day that Montana has nothing rivaling North Dakota's eastern prairies. Whenever I have the chance to get back up there, I am never unimpressed, and I still am in love with its austere landscapes (Figure 1.1). My relocation to North Dakota changed me in a number of ways.

Figure 1.1 Rural landscape of Walsh County, North Dakota (Wetherholt 2014).

For one, my exploration of the Peace Garden State germinated the seeds of this dissertation. Much like portions of Kansas and Nebraska's Central Great Plains, population loss is a familiar situation in North Dakota as well. While working on a repeat photography project in Antler, North Dakota, a town of less than 30 on the border with Manitoba and Saskatchewan, my research interests started to materialize. I found myself walking around this miniscule clustered rural settlement wondering why a few dozen people cling to that patch of earth when hundreds had moved away and left behind a crumbling schoolhouse, abandoned homes, and degrading infrastructure. That question about our attachment to places − in particular, very rural and depopulating places others have abandoned − drives this study.

The Great Plains cover over 3 million square kilometers and have the largest longitudinal range of the continent compared to every other ecological region on the continent (Commission for Environmental Cooperation 1997). The region extends east from the Rocky Mountains and reaches into both Mexico and Canada as one of fifteen Level I ecological regions in North America (Figure 1.2) based on characteristics like geology, physiography, land use, and biota (CEC 1997).

The Great Plains region has an overall population of approximately 10 million residents, almost twice as many people in the region as in 1950 (Wilson 2009). However, the growth has mostly been in large metropolitan areas on the periphery. Aside from the Depression of the 1930s, metropolitan counties in the Great Plains have grown in every decadal census since 1890 and their nonmetropolitan counterparts have lost population in every decadal census since 1910 (Archer and Lonsdale 2003). The pattern left behind includes decades of atrophy in some interior areas and the challenges that emerge like deciding which communities should receive aid (Daniels and Lapping 1987), what to do with the areas that are too small to save (Popper and

Popper 1987), how communities are affected as services wither (Koven and Hadwiger 1992), seeking solutions to the outmigration of talented citizenry (Carr and Kefalas 2009), as well as ways to remain viable (Wood 2008).

Figure 1.2 Great Plains Level I Ecoregion (U.S. Environmental Protection Agency 2016).

Research Questions

The main purpose of this study is to identify the elements of place that encourage rootedness in very rural areas characterized by outmigration and economic disadvantage – in other words, the aspects of place that discourage a move despite an apparent surplus of local push factors. Additionally, this investigation questions whether individuals in Kansas and Nebraska's depopulating Central Great Plains counties are attached to place, stuck in it, or a combination of these. Overall, this research seeks to contribute to understanding rural sustainability and sense of place, using the Central Great Plains as a case study. This inquiry has been guided by three research questions:

1. What elements of place encourage an individual to stay in a very rural part of the Central Great Plains when many others have moved away from it?
2. Are residents in very rural parts of the Central Great Plains strongly attached to place or merely stuck in it?
3. Does a very rural county's proximity to a growth pole have an effect on the rootedness of its residents?

Erickson, Call, and Brown (2012) suggest that high (or low) levels of attachment in combination with low levels of satisfaction could indicate than an individual is stuck in place. This study investigates if some residents perceive themselves as stuck in place. In addition, the relationship between place attachment and proximity to a growth pole such as a micropolitan area will also be investigated. Ghelfi and Parker (1997) suggest that rural counties adjacent to metropolitan ones are usually healthier in terms of economic opportunity and population stability/growth. Due to their deficit in the Central Great Plains, this study does not incorporate *metropolitan* statistical areas, however, the proximity of a micropolitan statistical area nearby may influence an individual's rootedness.

It is very important that the knowledge generated by the residents of this region be returned back to them. Grassroots approaches to rural sustainability allow small communities to bypass top-down approaches by governmental agencies and pool resources together to address issues that often operate at scales broader than political boundaries (Lu 2011). A bottom-up approach like this seeks to empower local stakeholders like economic development committees, regional university extension services, and the residents committed to the viability of their communities by returning locally-sourced knowledge to its rightful owners.

Research in the Great Plains is critical to its well-being; some counties have lost more than half of their overall population in the past 50 years. This research represents an important contribution toward our current understanding of how individuals in very rural spaces perceive and evaluate their surroundings. Results are connected to Pattison's (1990) four geographic traditions (e.g. the spatial tradition, area studies, human-environmental tradition, and earth science tradition). Specifically, this work adds to our current understanding of the complexities of human-environmental interactions through 1) evaluating the perceptions and evaluations of physical, social, personal, temporal, and economic aspects of very rural space, 2) exploring the relationship between mobility decisions of the very rural and their proximity to areas of growth, and 3) identifying threads of insider knowledge that contribute to local to regional rural sustainability initiatives. Findings add to existing foundations of knowledge in population geography, rural geography, and the geography of the Great Plains. Lastly, this research aims to contribute to improving the well-being of very rural portions of the Central Great Plains and beyond.

Dissertation Structure

Chapter Two reviews literature relevant to place attachment, rural studies, and the Great Plains region. The main focus is on the definition of place attachment and its employment in rural spaces, the varied interpretations of *rural*, and the settling of the Great Plains region by homesteaders in the mid-19th century onward, as well as its subsequent prolonged outmigration in some places.

The third chapter describes regional definition and characteristics connected to identification of the study area. In particular, significant effort is devoted to elucidating the varied delineations of the Great Plains by scholars. This is followed by a discussion of the ways the Great Plains can be characterized by varied economic and policy related themes from governmental agencies such as the USDA's Economic Research Service. The chapter concludes with a theoretical conceptualization of the regions within the Central Great Plains counties of Kansas and Nebraska.

Chapter Four incorporates the methods employed in this research. It begins with a brief overview of grounded theory and mixed methods approaches to scientific inquiry. The rationale and design of conducting a survey is then provided, including pilot work, participant selection, the handling and processing of returned questionnaires, and statistical analysis of responses. Next, the chapter includes a discussion on the role of focus groups as a means to offer enhanced context to traditional quantitative methods. Locations of focus groups are presented, as are the questions asked, the recruitment procedures implemented, and lessons learned from the pilot focus group conducted prior to its official administration in the field.

Chapter Five presents the results of this study. It starts with a summary of questionnaire returns, types of unusable returns received, and the demographics of its respondents. Then,

descriptive statistics are discussed to give readers a better understanding of the measures of central tendency as well as measures of dispersion with respect to closed-ended responses. After the presentation of descriptive statistics, correlation analysis and contingency tables follow. Questionnaire results are then summarized and the results of focus groups are incorporated. General results of the focus groups are presented first, summarizing the number of participants, composition of those participating, and the general observations made. Answers to the questions posed to focus group participants are then summarized. After this, the common themes that emerged within responses are outlined before differences between focus groups are discussed. Finally, results of the focus groups are incorporated with the results of the mailed questionnaire to offer a more holistic picture of the aspects of place that encourage rootedness in these very rural areas of the Central Great Plains.

The sixth chapter discusses the results in a more general sense. The chapter revisits the original research questions asked, provides the answers suggested by the study, and then synthesizes how these results can be boiled down to meaningful parcels of knowledge that may benefit the population under investigation.

Chapter Seven is the final chapter, and is a brief summarization of the findings uncovered in this study. Next, limitations of the study are briefly outlined before future considerations are introduced. Finally, appendices after bibliographic material provide supplemental information associated with the study, including the survey instrument, question rationale, follow-up correspondence materials, recruitment posters, and statistical summaries.

Chapter 2 - Background

Introduction

This study is fueled by a desire to better understand the survival of rural, isolated places in the Great Plains that are small and depopulating: what keeps people there when sizeable percentages are leaving? In some instances, counties have lost more than half of their population since the 1960 Census numbers were tallied. An inquiry such as this necessitates discussion of attachment to place, rural places, and the Great Plains region, all of which have an aspect of ambiguity. This chapter attempts to provide sufficient background on these concepts before proceeding to a description of the study area.

Exploring attachment to place

Defining place attachment

Tuan (1975, 152) remarked that "to know a place fully means both to understand it in an abstract way and to know it as one person knows another." Place attachment is paradoxically concrete yet elusive, geometrically precise while simultaneously abstract. Unfortunately, there is a substantial lack of cohesion among researchers when it comes to a unifying theory that helps explain our bonds with places. Hernández, Hidalgo, and Ruiz (2014) reinforce this point by highlighting how different concepts are employed in the exploration of attachment to place (Figure 2.1). Scannell and Gifford (2010, 1) posited three aspects of place attachment (Figure 2.2):

> The person dimension of place attachment refers to its individually or collectively determined meanings. The psychological dimension includes the affective, cognitive, and behavioral components of attachment. The place dimension emphasizes the place characteristics of attachment, including spatial level, specificity, and the prominence of social or physical (both built and natural) elements.

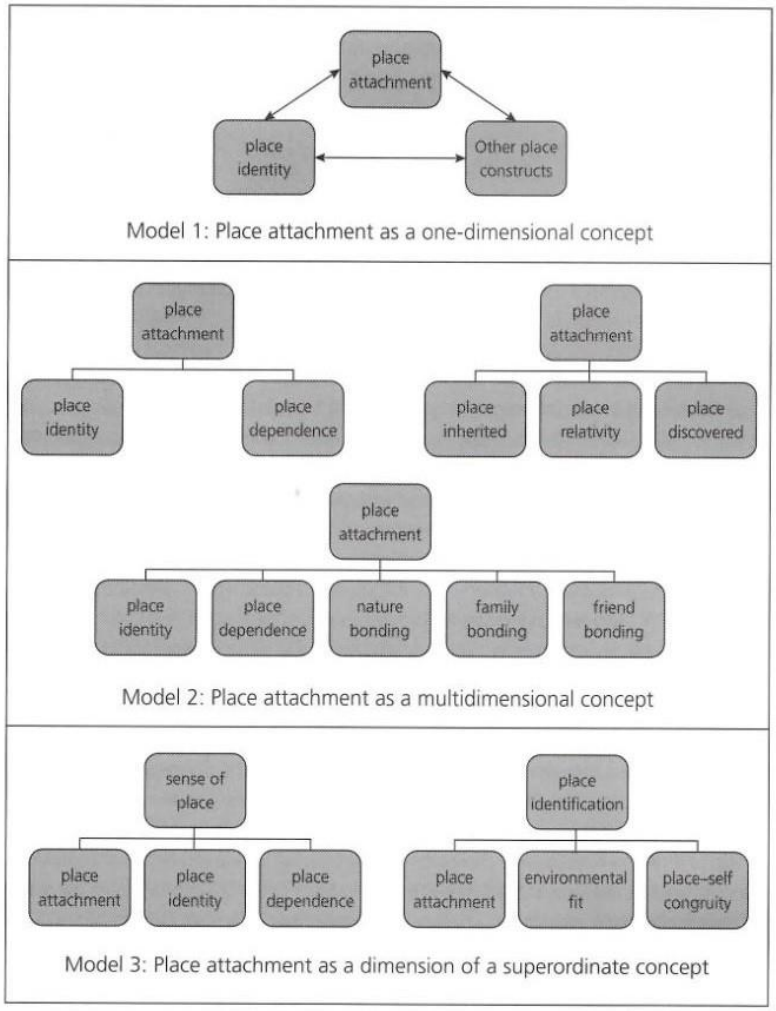

Figure 2.1 Multiple concepts of place attachment (Hernández, Hidalgo, and Ruiz 2014).

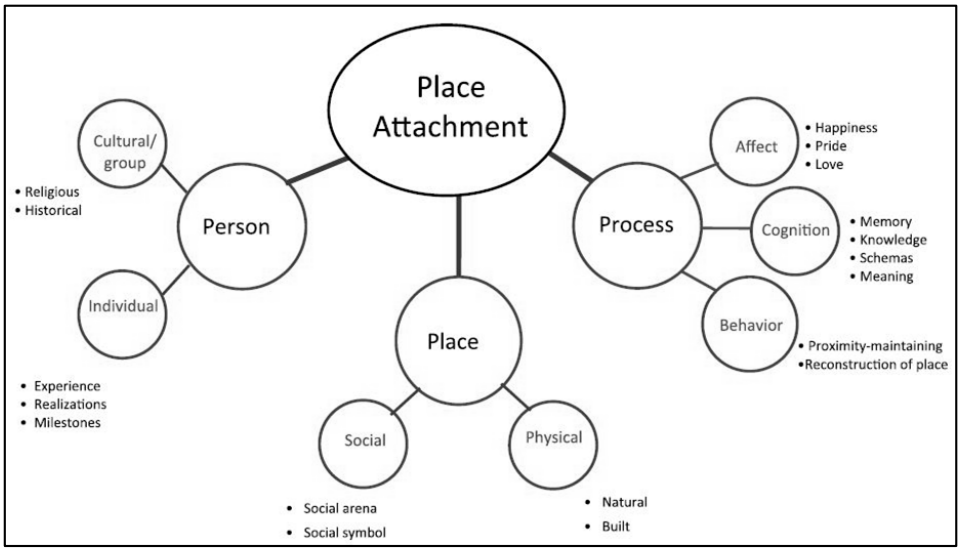

Figure 2.2 Scannell and Gifford's (2010) tripartite model of place attachment.

Low and Altman (1992, 2) defined place attachment as "the bonding of people to places." The term implies that the primary affective bond is of people to an environmental setting. The attachment can be an individual phenomenon; it can also include others like friends, family, and one's community. Attachment can have a temporal aspect that is linear or cyclical. A timeline that is linear is perhaps easier to conceptualize. For instance, how attachments to a house change for an individual as the progress from being a child to an adult is linear. Cyclical events can be annual rituals from those that are spiritual to an event like a fox hunt over a particular land area. Place attachment includes ideas that incorporate topophilia, place identity, insideness, rootedness, and environmental embeddedness, as well as community sentiment and identity (Low and Altman 1992). Tuan (1974, 4) defined topophilia as "the affective bond between people and place or setting." Rootedness is a strong, local sense of home that carries with it a similarly strong emotional attachment to the local area (Hummon 1992). There are everyday forms of rootedness as well ideological forms. Everyday rootedness revolves around awareness of the community and one's relation to it; ideological rootedness involves strong feelings of attachment and satisfaction in addition to a conscious identification with a community that is most often very favorable, especially when compared to other communities (Hummon 1992). Displacement, the opposite of rootedness, is often associated with a constrained mobility, but displacement also can emerge from a place's transformation (Hummon 1992).

Antonsich (2010, 121) viewed the study of place as "a field of care, a locus of emotional attachment, where the subject experiences events meaningful to her/his life." Practitioners of place draw largely from phenomenology and existentialism, with an emphasis on human experience. It is Heidegger's (1962) *Dasein*, the human subject's mode of being, which is always being in the world and being in place. Individuals without place are subject to what

Hooper (2001) called "place panic:" the fear of, or source of depression surrounding displacement or re-placement. This also includes fear of being conquered by those from another place, or the anxiety that is borne of being lost at sea (Hooper 2001).

Place refers to space that has been given meaning through personal, group, or cultural processes (Low and Altman 1992). Aristotle argued that *place* is where understanding about our world begins, because everything that exists must exist *somewhere* (Cresswell 2015). Place attachment is composed of interrelated and inseparable aspects of people-place bonding. It includes the environmental settings to which people are attached both culturally and emotionally. Frémont (1984) identified five fundamental types of places: places of production, places of habitation, places of exchange, places of play, and places of power. Places of production are centers of economic productivity. Places of habitation are the places of family and neighborhood. Places of exchange are not only places for services but also information, culture, and other intangibles. Places of play include recreation or tourist areas. Finally, places of power manifest themselves with some sort of symbolism: capital buildings, churches, or even the chieftain's hut in an indigenous settlement. Frémont (1984, 277) noted that "fundamentally, it is not exaggerated to say that the effect of place is more a social than a spatial product."

With respect to scale, the size of a place can vary greatly. The place can range from our planet and its situation within the solar system to as small as a room within a house. Components of a place − a particular chair, the fireplace, the bed − all have meaning associated with them in addition to a particular spatial location (Tuan 1974). Relph (1976, 40) referred to *home* as "an attachment to a particular setting, a particular environment, in comparison with which all other associations with places have only a limited significance." McHugh and Mings (1996) saw home as a mental construct centered on a sense of security as well as belonging. One

cannot define home without venturing away from it: "like breathing in and out, most life forms need a *home* and horizons of *reach* outward from that home. The lived reciprocity of rest and movement, territory and range, security and adventure…these experiences may be universal among inhabitants of Planet Earth" (McHugh and Mings 1996, 538). Cresswell (2008) explored the scale of place from internal (being put in one's place), the mathematical location of a place (latitude and longitude, complete with hours, minutes, and seconds) to the environmental movement where the Earth is collective space in which we are all invested. Furthermore, a place need not be fixed; a ship is often in flux for long periods of time and becomes home for fishermen onboard. "Places, then, are particular constellations of material things that occupy a particular segment of space and have sets of meanings attached to them" (Cresswell 2008, 135).

In the exploration of our attachments to place, Tuan (1975) goes so far as to incorporate a place's physiological effects. In the same manner that a wine enthusiast

> can be said to 'think' with his educated palate; likewise a cloth feeler 'thinks' with his sensitive fingers…returning from a vacation we can articulate visual experience with colored slides and incidents with words, but the exhilarating olfactory and tactile experiences remain buried in our private selves (Tuan 1975, 152).

Perhaps these experiences remain buried unless discussed. The occasional hiker, having hiked on the side of a sizable mountain may recall the agony of her leg muscles aiding her around another switchback, the smell of the windswept juniper, or the feel of a cold handful of glacial runoff on the back the neck to cool off. Familiar to some, too, is the feeling of sand between the toes at the ocean, the auditory cadence of the waves lapping at the shore, and the smell of saltwater in the air (or its briny taste on the lips). These sensory memories are not always positive. Tuan (1974) reminds us of the other end of the spectrum, with ghetto children recalling the grime and unpleasant smells of their block. Experience goes both ways, or in a multitude of directions for that matter.

Low and Altman (1992) remarked that place attachment is an integrating concept involving patterns of attachment (affect, cognition, and practice), scale, actors, social relationships, and temporal aspects. Place attachment springs from four processes: biological, environmental, psychological, and sociocultural. Biological processes focus on evolutionary and physiological adaptations to the physical environment by humans. Environmental processes include adaptations of people to environmental opportunities and constraints. Psychological factors, including individual experiences in place during certain stages of life, tend to be the most commonly studied of the four processes. Sociocultural dynamics incorporate social customs and norms, symbols, and rituals that influence attachment to a place (Low and Altman 1992).

Studies of place attachment

Studies of place attachment are varied, often focusing upon homes and sacred places, emphasizing unique emotional experience as well as the bonds people have with places. Under the scrutiny of the dominant positivist paradigm that emerged after the quantitative revolution of the late 1950s and early 1960s, these studies were not prominent nor considered productive research strategies. Low and Altman (1992, 2) noted that

> at a broad cultural level, the history of New World Western cultures has been one of instability, migration, and change, with research emphasizing how people seek out and adapt to new situations, rather than focusing on how they affiliate and attach themselves to their new locations.

Despite place having an enigmatic quality, it has long been studied by geographers. It is important to note that geographers have always been interested in *places* but not necessarily in *place* (Antonsich 2010; Cresswell 2008). Most recently, studies of place within the discipline have been undertaken by humanistic geographers with an emphasis on the subjective experience of individuals in place by pioneers like Tuan (1974) and Relph (1976). More recently, power

relations and socially constructed meanings of place have been of interest to geographers. Cresswell (2008) does not consider place to be associated with one particular time in history, but instead, place is open to interpretation and constructed time and time again in what he refers to as a progressive or global sense of place.

In studying the annual transhumance of 'snowbirds' from varied places in the United States to Phoenix, Arizona, McHugh and Mings (1996) identified three types of place attachment: *rooted*, *suspended*, and *footloose*. The *rooted* residents had deep satisfaction with their Arizona residence despite not having a desire to remain there all year. The *suspended* displayed a weaker attachment to their home, and a lack of commitment to both their summer and winter communities. Suspended snowbirds also seemed to display emotional dissonance when discussing home, their attachments to place, and future plans. *Footloose* snowbirds did not have the lifelong accumulation of experiences in a place and had life histories marked by frequent job transfers and moves over the life course. In retirement years, they showed no signs of being rooted anywhere (McHugh and Mings 1996).

A core aspect of a place is one's attachment to it (Relph 1976). Hummon (1992, 262) saw place as "people's subjective perceptions of their environments and their more or less conscious feelings about those environments." This study makes an effort to gather a respondent's perception of their area's environmental attributes. Burholt (2006) found an individual's attachment to place was affected by the aesthetic qualities of their environment. These "natural amenity settings" of a place are important to the people that live in an area (Brehm et al. 2006, 144).

There are social aspects to place as well, which will be explored through this investigation. Relph (1976, 25) asserted that place occurs where the cultural "webs of

significance" come into contact with the earth and "connect people to the world." Burholt (2012) posited engaging in social activities helped define a person's place identity. Likewise, Taylor, Gottfredson, and Brower (1985) contend there is a positive relationship between a person being involved in a place and their rootedness to it. Established relationships in a place provide a source of emotional support and also contribute to one's attachment to place (Burholt 2006). Along with emotional support, a sense of belonging arises through social bonding and strengthens place attachment as well (Raymond, Brown, and Weber 2010).

Rural place attachment

"On a superficial level, to say that rural residents of the Great Plain[s] possess deep seated feelings of attachment to the county in which they live is an understatement" (Smith and McAlister 2015, 188). Smith and McAlister (2015) revealed generational differences in residents' attachments to rural county seats in Kansas. The oldest cohort (the "Greatest Generation" or "Good Warriors") displayed the strongest attachments to the county seat and visited them most often; Baby Boomers tended to visit the county seats only when necessary; the Generation X cohort was the least attached to the county seat, especially because of internet connectivity decreasing their need to physically make the trip (Smith and McAlister 2015). Economic occupation also influenced attachment to the county seat, with differences noted between ranchers and farmers. Ranchers, typically in more isolated parts of a county, desired a centrally-located county seat and took personal offense when the seat was relocated closer to the county's population majority (Smith and McAlister 2015). Farmers were more interested in a county seat that was closer and less concerned with its centrality.

Carr and Kefalas (2009) investigated the change of a small Iowa community having characteristics like many small towns: far-removed from the nearest metropolitan area complete

with dusty gravel county roads, perhaps paced a bit slower than places that are bigger, having fewer services than the cities, and full of kids waiting for their opportunity to escape for what they perceive are greener pastures elsewhere. The authors presented economic and social forces keeping certain individuals, "Stayers," rooted. In addition to the ability to make a living, Stayers like where they live; low crime where one's children can grow up and play without intense supervision, no traffic, familiar faces, and like-minded individuals are all reasons for the Stayers to remain in place (Carr and Kefalas 2009).

Larsen (2004) explored how post-WWII resource extraction in parts of northern British Columbia has eroded its traditional place identity as outsiders increasingly utilize the region for their own means and visions. Transnational forestry firms exploit the labor and raw materials while urbanite outsiders romanticize the region as a place for wilderness tourism. Place identity here has been negotiated, transformed, and reconstructed in the age of modernity. Locals

> created a politically-charged sense of place after World War II by pitting emotional attachments to their home region against the late-capitalist forces of Fordist industrialization and outsider power in the province. In doing so, they turned the act of place making into a tactic of resistance, using it to protest, and in some cases, defeat large-scale resource projects such as hydroelectric dams (Larsen 2004, 944).

A coherent sense of place emerges only after dominant cultural norms coincide with the ideologies of those in positions of power, what Larsen (2004) referred to as hegemonic equilibrium. Without equilibrium, social struggle among a town's residents, workers, unions, and corporations will prevail and subvert a stable sense of place.

Lindsborg, Kansas, also known as 'Little Sweden, USA,' has re-identified itself to connect with the popularity of ethnic tourism. Material artifacts emerge in the patchwork of Lindsborg's identity, such as the Swedish flag and traditional *Dala* horse. Swedish traditions are selectively used, invented, reinvented, and reinterpreted in Lindsborg (Schnell 2003).

Lindsborg's Swedish identity is more historical than contemporary, but the town's selective ethnicity is its economic mainstay. There are many different kinds of ethnic backgrounds in Lindsborg and "none of these ethnicities [in Lindsborg] is more correct or purer in form than the others; all are simply attempts by people to define themselves and their place in the world, driven by their own particular social and historical circumstances" (Schnell 2003, 25).

Blake (2002) studied the symbolism and character of Colorado's *Fourteeners* (peaks with an elevation greater than 14,000 feet). These summits are a part of Colorado's place identity and a way in which Americans identify with the state. Three themes were addressed by Blake: the evolving conceptualization the 54 *Fourteeners* as a cohesive group, the goal of hikers to summit all of them, and the role of the *Fourteener* mountains in local communities' place identity. "Fourteen thousand feet, arbitrary as that elevation may be, in part gains a distinct sense of place because of physical extremes and challenges, including thin air, rockfalls, avalanches, volatile weather, lightning, rugged terrain, and verticality" (Blake 2002, 162). The character of some peaks, such as the 14,009' Mount of the Holy Cross, contribute to the place identities of the communities that lie in their shadows. In other places, the Fourteeners manifest symbolically through conversations, newspaper headers, business names, postcards, land preservation initiatives, and tourist brochures. The Colorado state quarter features a rugged mountain scene, yet half of the state lies in the Great Plains. Even the license plate in Colorado is of a green silhouette of the Front Range of the Rocky Mountains.

Park and Coppack (1994) explored how the increasing influence of Toronto's urban functions was transforming the rural sentiment with which it interacts. In a rapidly modernizing city, an urban society needs familiar landscapes, and when it sentimentally interacts with the rural hinterlands, it transforms them as well (Park and Coppack 1994). This results in a non-

Euclidean space that is more a set of intangible conditions and attitude than a concrete delineation. Much like the residual definitions of rural (Cloke 1987), rurality seems to be a residual definition of the amenities out of reach inside the city (Park and Coppack 1994). The attributes sought by Toronto urbanites in search of rurality were trifold: 1) *psychological* attributes, which include a rural place's ambiance, its peace and quiet, and its "wholesome" nature; 2) *scenic* attributes, including both the built and non-built environment; and 3) *commercial* attributes that incorporate recreational shopping (e.g., baked goods, handmade items, and crafts) as well as a place's support activities (Paul and Coppack 1994). Figure 2.3 outlines how these attributes overlap to contribute to the *rural sentiment* of a place.

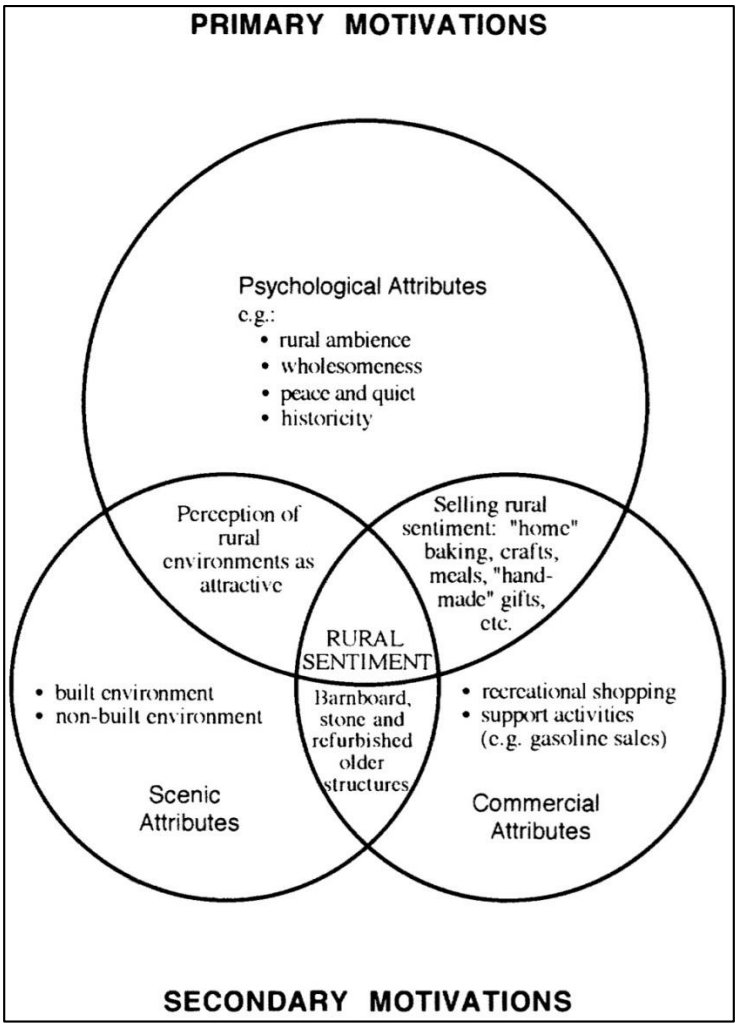

Figure 2.3 Attributes associated with rural sentiment (Paul and Coppack 1994).

Focusing on the rural

The rise of rural geography

The emergence of rural geography as a distinct sub-discipline began in the wake of regional geography's decline in the 1950s (Woods 2005). That is not to say that geographical inquiry in rural space was absent up to this point; the countryside was the central focus of much historical geography and human geography up to the 1950s (Cloke 1997). After the Second World War, focus turned to the cities and rural geography emerged as a residual. The original focus of rural geography was trifold: the geography of agriculture, rural land use, and how human activity impacted and was organized within rural space (Woods 2005). The geography of agriculture was related to the modernization of farming after World War II. Woods (2005) identifies John Fraser Hart's work on rural land use (1975) and the rural landscape (1998) as seminal rural research. If there is a difference, Hart (1982, 2) might see his work as regional geography first, but focused on rural landscapes: "the highest form of the geographer's art is producing good regional geography – evocative descriptions that facilitate an understanding of and appreciation of places, areas, and regions." The study of human activity within rural regions incorporated research on spatial patterns of population and migration, transportation, and rural settlement patterns (Woods 2005), in addition to agriculture. Studies tended to be quantitative in scope and often employed spatial models like Von Thünen's model of land use or Christaller's central place theory, which did little to elucidate a rural area's underlying social, economic, and political processes (Woods 2005).

The end of the 1980s brought with it a *cultural turn* for social science inquiry that "promoted a new understanding of culture as the product of discourses through which people signify their identity and experiences and which are constantly contested and re-negotiated, and cultural geographers started to explore spatial relations and the meaning of place through issues

of identity, representation, and consumption" (Woods 2005, 24). The "turn" was multifaceted with many avenues of study:

> The following list is hardly exhaustive: a revivification of traditional areas of interest in cultural geography under the influence of theories of colonial discourse and postcolonialism; a concern for the 'cultural' embeddedness of economic processes; an interest in examining the mobilization of culture as an accumulation strategy; a greater concern for examining relations between identity and consumption; an ever-greater sophistication in understandings of the construction of social relations of gender and race as well as class; a focus upon cultural constructions of environment and nature (Barnett 1998, 380).

The cultural turn in geography largely involved a critique of the cultural geography conducted by the Berkeley School, made popular by the work of Carl Sauer. The Sauerian conceptualizations of the cultural landscape were criticized as conservative and theoretically naïve (Valentine 2001). Price and Lewis (1993), feeling that the traditional cultural scholarship of the Berkeley School was under siege by a handful of geographers practicing their newer scholarship, argued that the *new* cultural geographers and their preference for conceptual positioning was at odds with most *traditional* cultural geographers who preferred empirical questioning. "Moreover, most 'traditional' cultural geographers find the pugnacious style of contemporary geographical debate distasteful" (Price and Lewis 1993, 2). Price and Lewis (1993, 12) supported an inclusionary approach to cultural geography wherein all strands of research serve to enrich the discipline, but remarked "the best of cultural geography has always been, and will always be, oriented to empirical issues." Scholars like Jackson (1993) refuted the claim of Price and Lewis that the cultural turn was in some way trying to usurp traditional modes of inquiry in cultural scholarship. "Rather than insisting on our fidelity to one particular 'school,' I would focus our energies on asking new questions and opening up new avenues of inquiry" (Jackson 1993, 519). The cultural turn was by no means a smooth turn.

Rural geographical research reflected in the cultural turn includes the rural research of nature-society relations, rural experiences, the representation of the rural in varied media, and rural mobility (Woods 2005). Examples of this research include turning the perspective of counterurbanization from the urban environment and its push factors to one of rural regeneration (Cloke 1985), exploring the health care needs of rural people in isolated parts of the United States (Weinert and Long 1987), and comparing the social well-being of rural communities in the Scottish Highlands (Knox and Cottam 1981). Most recently, rural research has developed attention to the geographies of food (including interrelationships of production, consumption, and representation) and the experiences of rurality (Woods 2005). Critical reflexivity is a unifying aspect among the work proceeding from the cultural turn, including the sensitivity research has toward the role of language, meaning, and the ways in which we represent "reality" (Barnett 1998).

Delineating the rural

Haas (1990) argued that we have spent much of our time idealizing rural America in one breath and largely ignoring it in the next. "Urban" is generally assigned a specific definition while "rural" incorporates the left-over space. The definition of *rural* is often a residual of more robust definitions of *urban*, suggesting a lack of attention to a portion of our nation that is home to more than 60 million, whether we romanticize it or not (Brown and Schafft 2011). Since the 1910 Census, any place with fewer than 2,500 people has been defined as rural; however, depending on the classification scheme employed, the population of the country considered rural varies between 7 and 49 percent (Cromartie and Bucholtz 2008). Any place with more than 50,000 people is considered urban, but ambiguity lies between these two thresholds (2,500 and 50,000; Figure 2.4). Varied criteria are considered in the bounding of rural and urban places;

these include the delineation of a place's administrative boundaries, its population densities, land-use, and functional economic boundaries (Figure 2.5). The scope of an academic inquiry will likely dictate the definition employed. As Cromartie and Bucholtz (2008, 32) put it, "the key is to use a rural-urban definition that best fits the needs of a specific activity, recognizing that any simple dichotomy hides a complex rural-urban continuum, with very gentle gradations from one level to the next." Quite simply, there is no standard definition of rural (Woods 2005).

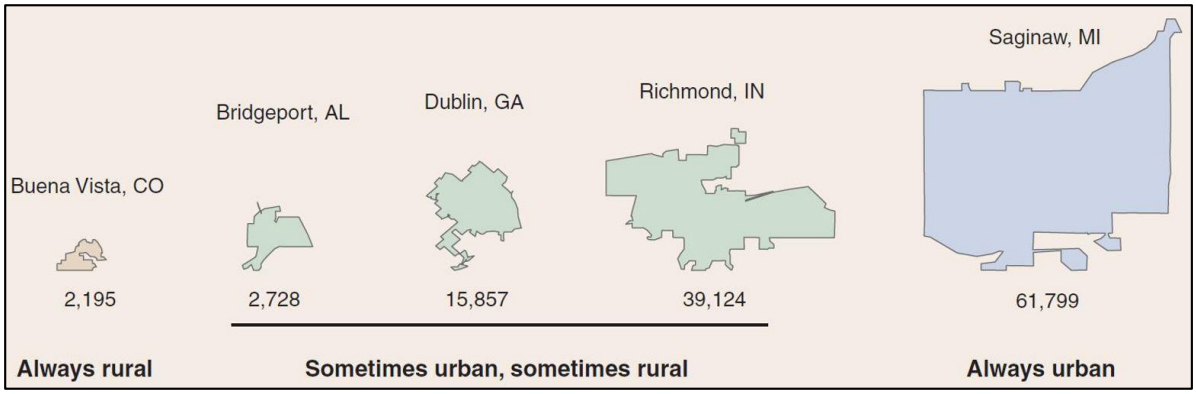

Figure 2.4 The spectrum between urban and rural (Cromartie and Bucholtz 2008).

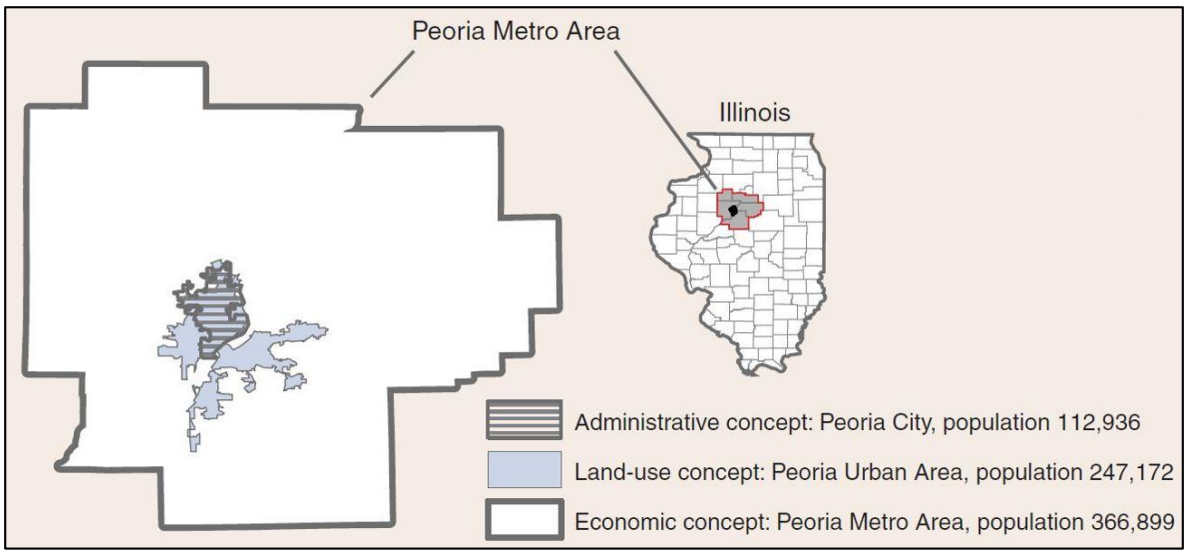

Figure 2.5 Different definitions of an urban area (Cromartie and Bucholtz 2008).

Hoggart (1988) argued that repeated calls for a better definition of rural have not been heeded. Defining *rural* is also complicated by the sheer diversity of rural areas (Haas 1990).

The diverse nature of rurality has made a single definition quite problematic. It is as Scher (1977, 2) noted:

> Rural America is far too heterogeneous and complex to be amenable to simplistic definitions of comfortable stereotypes. Remembering that fishing villages in Maine, coal company towns in Appalachia, farm communities in Iowa, Delta counties in Mississippi, recreation communities in Colorado, Indian reservations in South Dakota, small college towns in Minnesota, migrant settlements in Texas, retirement communities in Florida, and Alaskan native villages are all 'rural' leaves one feeling less than sanguine about sweeping generalizations.

Withering of the rural

An economic decline of the Great Plains associated with increased world production of commodities like grains and energy resources had scholars concerned that the region was hovering close to a position rivaling the Great Depression of the 1930s long before the recent economic downturn (Daniels and Lapping 1987). Budgetary cuts that include agricultural subsidies and public works further impact the rural hinterland. Most at risk are those places that are always considered rural: very small communities with fewer than 2,500 people (Daniels and Lapping 1987). A *Small Town Triage* policy for rural America, suggested by Daniels and Lapping (1987), is much like the medical triage approach of the French in World War I and adopted by medical professionals in emergency situations in the last century. A medical triage strategy identifies the injured who have the greatest chance of survival with proper medical care and are given immediate attention. Those who are mortally injured, or injured to a point that does not threaten their lives, are not treated. Applied to rural places, those in the greatest difficulty are passed over for those places with the best chance to survive. Daniels and Lapping (1987, 274) stated that "a dispersed network of public and private services is both unnecessary and uneconomic" and that the rationale for eliminating services in some areas is due to the high cost per unit in some rural locations. A significant problem inherent in the discussion is how to

decide what areas should be preserved and what areas should be overlooked. The communities most at risk are likely very small in population, situated away from economic centers, and lean heavily on a single industry that is most likely in the primary sector like agriculture or energy. The triage's main strategy is to assist rural population centers of 2,500-5,000 capable of providing services and employment opportunity. Towns slightly larger (5,000-15,000) are included as well, but are secondary in consideration. Daniels and Lapping (1987) argued that targeting places between 2,500 and 15,000 is a more efficient use of public funds, and these places are less likely to be underutilized or abandoned. Such a strategy does not favor very small places that are having the most difficulty, and does little to curb their decline.

Policy has a tendency to sentence the most rural of communities to "wither on the vine" (Daniels and Lapping 1987, 280) in an attempt to save the larger places. This withering equates to population decline, aging in place, consolidation (or altogether evaporation) of local schools, fewer jobs, and dwindling availability of basic services like health care. These accumulating push factors contribute to a continued trend of rural abandonment. The cost of a community cornerstone like a school closing or consolidating extends beyond the collective pocketbook of the community; there is a direct social cost, as well (Koven and Hadwiger 1992). Community symbols such as a school, courthouse, fraternal halls, and houses of worship are associated with significant emotional attachments by residents (Koven and Hadwiger 1992), serve as social capital, and help to tie people to place.

Two decades ago, Haas (1990) asserted that there is a marked fading of rural America's sense of community between the residents in rural places. She cited research involving Missouri survey respondents indicating a nearly ubiquitous feeling of depression and increasing physical aggression. In addition, problems such as suicide were becoming more prevalent; a study in

1987 in rural Minnesota yielded attempted suicide rates among adolescents 15 times the national average (Haas 1990). A decade later, Putnam (2000, 402-403) discussed the phenomenon of a changing social structure in America:

> …most Americans today feel vaguely and uncomfortably disconnected. It seemed to many as the twentieth century closed, just as it did to the young Walter Lippmann at the century's opening, that "we have changed our environment more quickly than we know how to change ourselves." We tell pollsters that we wish we lived in a more civil, more trustworthy, more collectively caring community. The evidence from our inquiry shows that this longing is not simply nostalgia or "false consciousness." Americans are *right* that the bonds of community have withered, and we are *right* to fear that this transformation has very real costs… The ebbing of community over the last several decades has been silent and deceptive.

Putnam (2000) witnessed a decrease in the social capital of communities where people were not interacting the way they once did. In all corners of our country, there has been a marked decline in participation within social groups like bowling leagues, the National Parent-Teacher Association, religious organizations, community get-togethers, and even in the way we treat those we do not know (Putnam 2000). Those studying rural places have long known that the *rural mystique*, or the *rural idyll*, is not the norm for many places including the Great Plains. This mystique is an idealized view of rural life that "ignores the misery of rural poverty and presents emotional and sometimes sentimental renderings of people and landscapes in harmonious unity" (Brown and Schafft 2011, 10). For all their problems, as well as rosy (mis)representations, people still are attached to rural places. In the Great Plains, many residents have been moving away decade after decade, but some remain. It is the attachments to these very small places of which so many have let go that drives this study.

The Great Plains

Stephen Long's 1820 report on the expedition he led into the Great Plains (via the Platte River) informed President Madison that the area was

> almost wholly unfit for cultivation, and of course uninhabitable by a people depending on agriculture for their subsistence. Although tracts of fertile land considerably extensive are occasionally to be met with, yet the scarcity of wood and water, almost uniformly prevalent, will prove an insuperable obstacle in the way of settling the country (Webb 1931, 156-157).

Atlases soon thereafter began referring to the region as the *Great American Desert* (Smith 1835). And while it has been settled in the almost 200 years since, it has been by no means easy. Swaths of grasses have reclaimed numerous settlements in the region that were unable to succeed. Others still cling to the land, and the grasses wait.

The Great Plains encompass the largest longitudinal range of the continent, covering about 3.5 million square kilometers (Commission for Environmental Cooperation 1997), however its geographic extent is a subject of debate, particularly its eastern boundary. Rossum and Lavin (2000) highlighted the variability of regional identification by showing fifty different versions of the mapped Great Plains boundary from a variety of published sources (Figure 2.6). Geomorphic minutiae aside, the Great Plains region extends eastward from the Rocky Mountains while stretching from Mexico to Canada, and are not a featureless wasteland as the region is so often stereotyped (Trimble 1980). Trimble (1980) divided the Great Plains into the Missouri Plateau's glaciated and unglaciated sections in the northern portion of the region, the Black Hills within the unglaciated Missouri Plateau, the High Plains from Nebraska to Texas, the Colorado Piedmont, the Plains Border mostly in Kansas, the Raton section along the Colorado-New Mexico border, the Pecos Valley of New Mexico and Texas, Texas' Edwards Plateau, and the Central Texas Uplift section (Figure 2.7).

Under the leadership of James Omernik, the U.S. Environmental Protection Agency (2016) refined Omernik's (1987) original conterminous U.S. ecoregions and constructed a set of ecoregions with multiple levels of detail, Level I being the coarsest. The Great Plains is one of fifteen Level I ecological regions in North America (Figure 1.2) based on common geologic, physiographic, vegetative, climatic, soil, land use, wildlife, and hydrographic characteristics (CEC 1997). This Great Plains delineation is larger than Trimble's (1980), but they have much overlap. The Level I ecoregion includes portions of all three North American nations, includes more eastern land, and the Black Hills are excluded (CEC 1997).

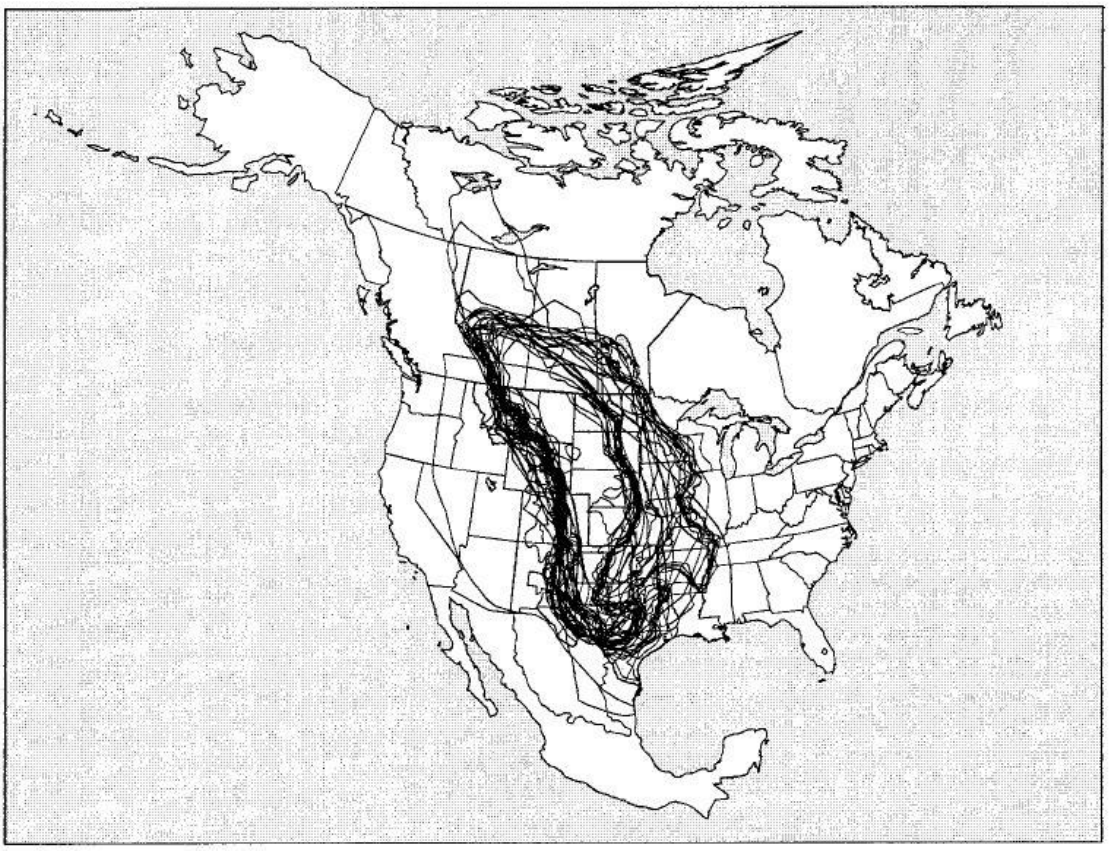

Figure 2.6 Fifty versions of the Great Plains boundary from published works that span from the 1930s to the Internet (Rossum and Lavin 2000).

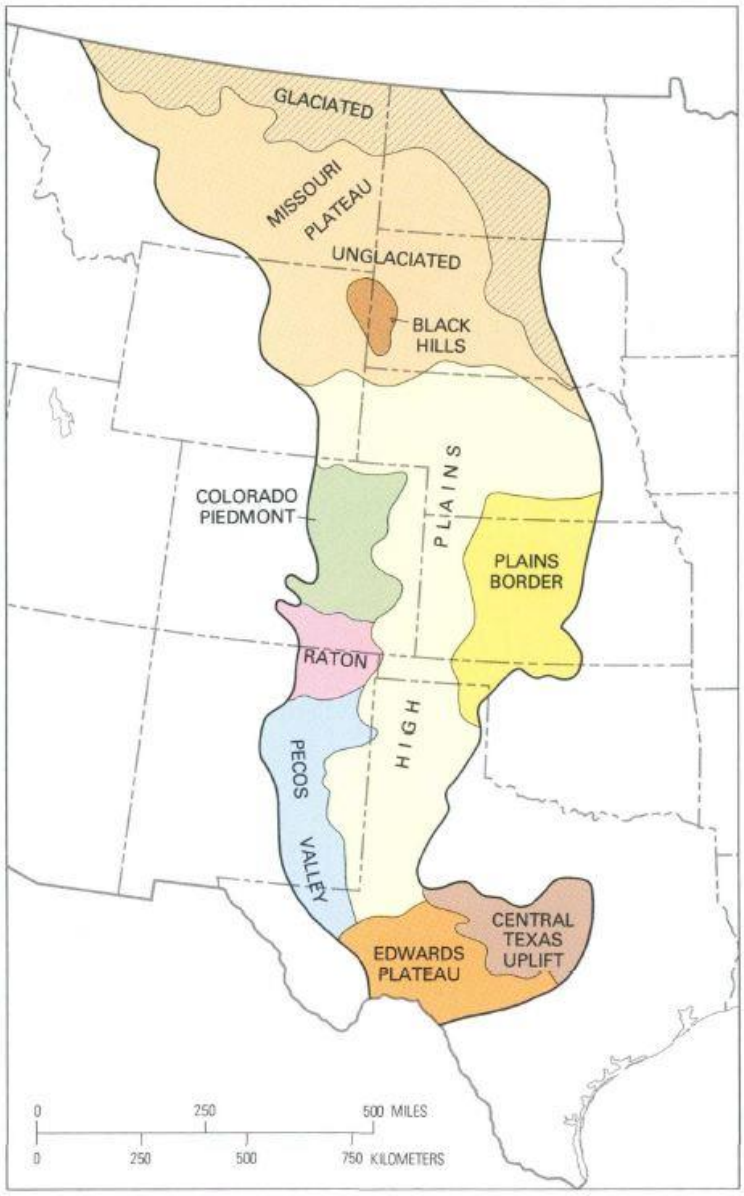

Figure 2.7 The physiographic sections of the Great Plains (Trimble 1980).

Level II ecoregions (Figure 2.8) provide a more detailed description of the large ecoregions nested within the Level I regions (EPA 2016). There are fifty-two Level II ecoregions in North America, five of which make up the Great Plains. The Great Plains' Level II ecoregions include the *West-Central Semiarid Prairies* from Nebraska to Alberta, the *Temperate Prairies* that make up the northernmost portions of the region and stretch all the way

to Oklahoma along the eastern side of the Great Plains, the *South-Central Semiarid Prairies* that incorporate portions of Southeast Wyoming and Nebraska's panhandle south into Central Texas, the *Tamaulipas-Texas Semiarid Plain* of Southern Texas and adjacent portions of Mexico, and the *Texas-Louisiana Coastal Plain* along the western coast of the Gulf of Mexico.

At Level III, there are nearly 200 ecoregions in North America (Cleveland 2012). These regions are nested within the Level II delineations and are intended to aid in regional environmental monitoring because their smaller size allows for the formulation of finer-scale management strategies (Cleveland 2012). There are sixteen Level III ecoregions within the Great Plains (Figure 2.8). In the northern portions of the Great Plains, these ecoregions include the *Northwestern Glaciated Plains*, *Aspen Parkland/Northern Glaciated Plains*, *Lake Manitoba and Lake Agassiz Plain*, and *Northwestern Great Plains*. The north-central portion of the Great Plains include the *High Plains, Nebraska Sand Hills, Central Great Plains*, *Western Corn Belt Plains*, *Flint Hills*, and *Central Irregular Plains*. The south-central portion of the Great Plains has a portion of the *Central Great Plains* and *High Plains,* as well, but also includes the *Southwestern Tablelands*, *Cross Timbers*, *Edwards Plateau*, and *Texas Blackland Prairies*. The southern extent of the Great Plains is made up of the *Southern Texas Plains/Interior Plains* and the *Western Gulf Coastal Plain*.

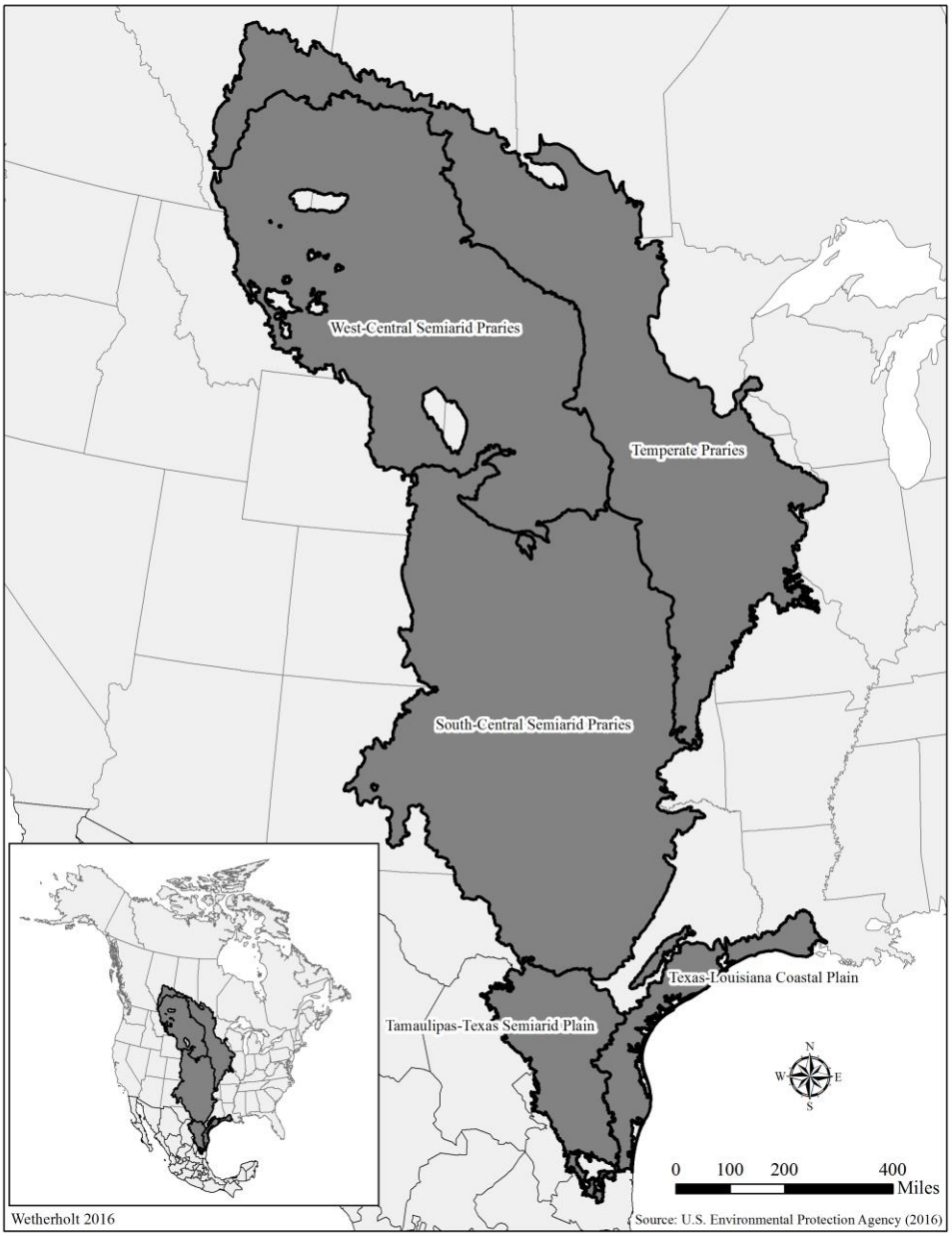

Figure 2.8 Great Plains Level II Ecoregions (U.S. Environmental Protection Agency (2016).

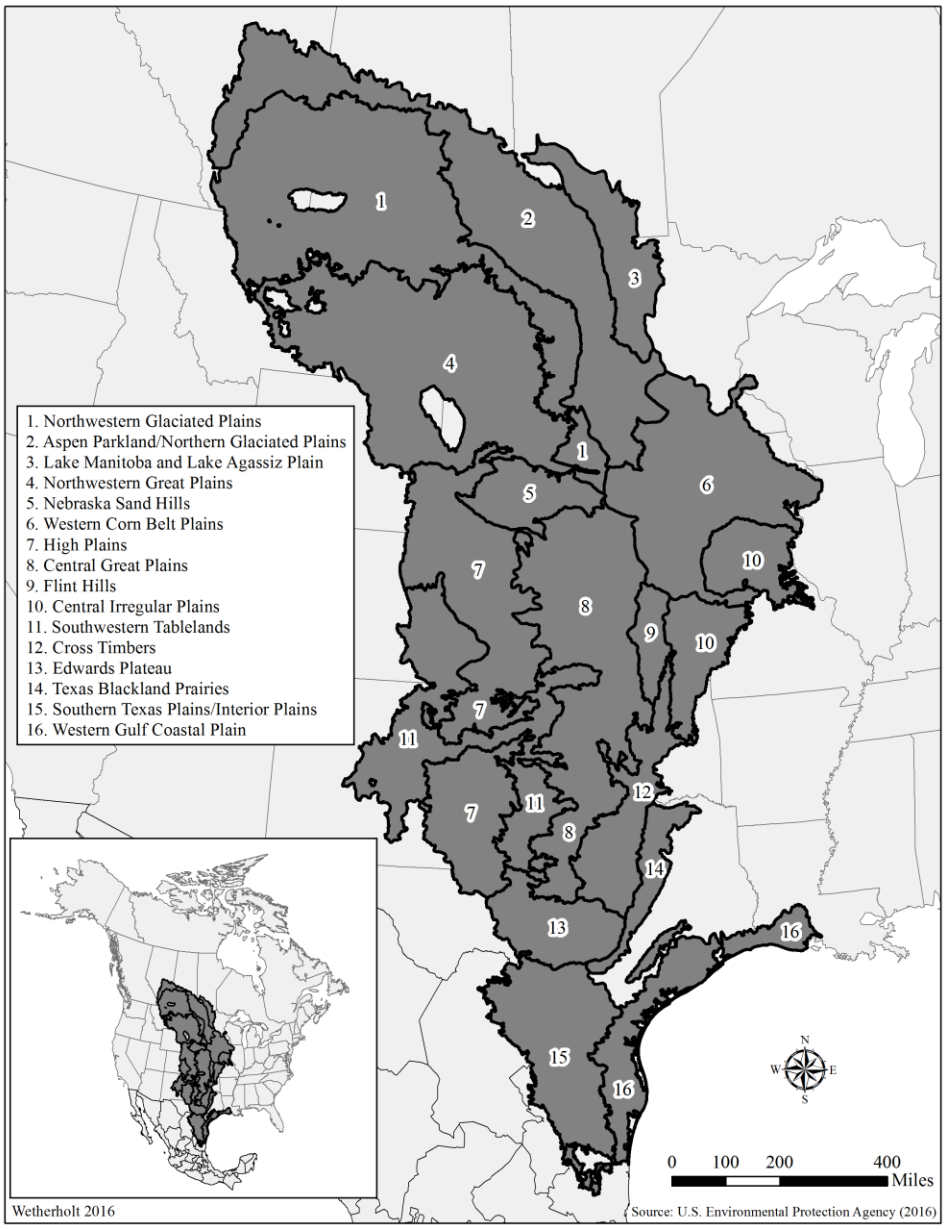

Figure 2.9 Great Plains Level III Ecoregions (U.S. Environmental Protection Agency (2016).

Settling the Great Plains

Much of the Great Plains region was settled rapidly by Euro-Americans after the passing of the Kansas-Nebraska Act of 1854, subsequent Homestead Acts, and expansion of the railroads. So rapid was immigration that in 1890 the Superintendent of the Eleventh Census of the United States declared "the unsettled area [of the United States] has been so broken into

isolated bodies of settlement that there can hardly be said to be a frontier line" (Shannon 1936, 637). And while the frontier may have been populated by 1890, the real waves of population came in the 20th Century. More land was settled in the Great Plains between 1898 and 1917 than in the three decades prior (Wishart 2001).

In the semiarid portions of the Great Plains, the initial agricultural productivity of homesteads was facilitated by wet periods, but was undermined by the absence of a long term climate record and the fallacy that rain would follow the plow (Libecap and Hansen 2002). In the 1930s, increasing agricultural demands on the land were compounded by persistent La Niña conditions that brought a decade of precipitation deficits to the region and created the historic Dust Bowl (Cook, Miller, and Seager 2009; Schubert et al. 2004). In many portions of the Great Plains, particularly the southern High Plains, dust storms were the stuff of legends, and waves of homesteaders gathered what they could muster and abandoned the region for the prospects of a better life in California and other places out west (Cunfer 2008). A farmer who did not provide a name, but was forced from his land by the dust storms remarked to a Resettlement Administration photographer on the Oklahoma-California highway (historic U.S. Route 66) that "a man can't make out noways by standin' and watchin' his crops burn up. I heerd about this here irrigation [in California]. I figured that in a place where some people can make a good livin' I can make me a livin" (*Life*, 21 June 1937, 65) (Figure 2.11).

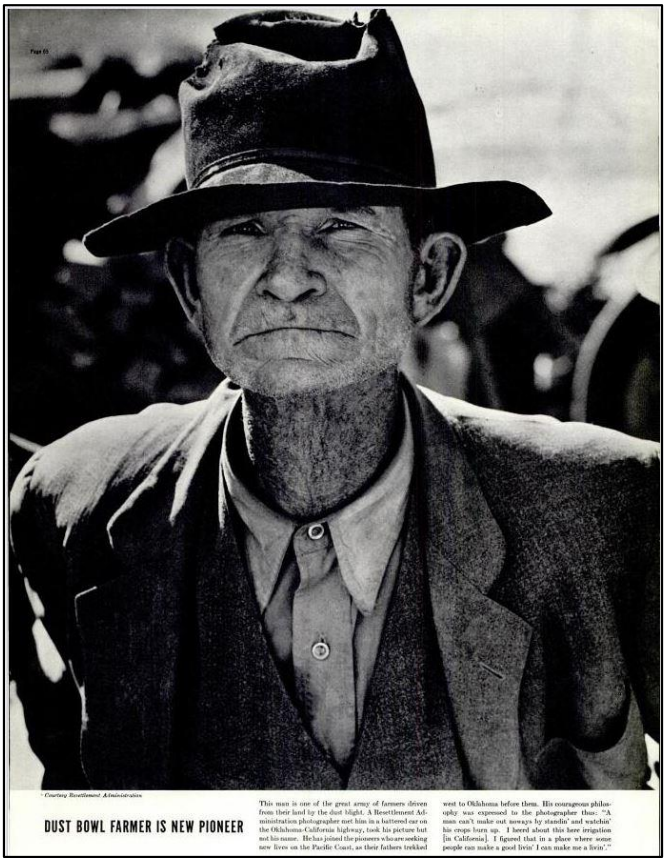

Figure 2.10 Magazine reports on the exodus from the Dust Bowl (*Life* 21 June 1937, 65).

The "Hollowing" of the Great Plains

While the Great Plains were settled by the 1930s and subsequently underwent partial abandonment during that decade, the overall population now sits at about 10 million residents − nearly double the number in 1950 (Wilson 2009). However, this figure is a bit misleading: the growth has mostly been in large metropolitan areas on the periphery of the region, such as Omaha, Kansas City, Austin, and Denver. Archer and Lonsdale (2003) used a geographically larger area than Wilson (2009) to examine the population characteristics of the Great Plains (their population totals are double those of Wilson's report), but the overall population trends are no different. Besides the Depression of the 1930s, metropolitan counties in the Great Plains have grown in every decadal census since 1890, and their nonmetropolitan counterparts have lost

population in every decadal census since 1910 (Archer and Lonsdale 2003) (Figure 2.12). This demographic pattern results in a dichotomous Great Plains: one portion that is synonymous with the open and 'empty' areas of American perceptions, and another made up of "highly urban, growing, and economically and culturally diversified" concentrations (Archer and Lonsdale 2003, 49).

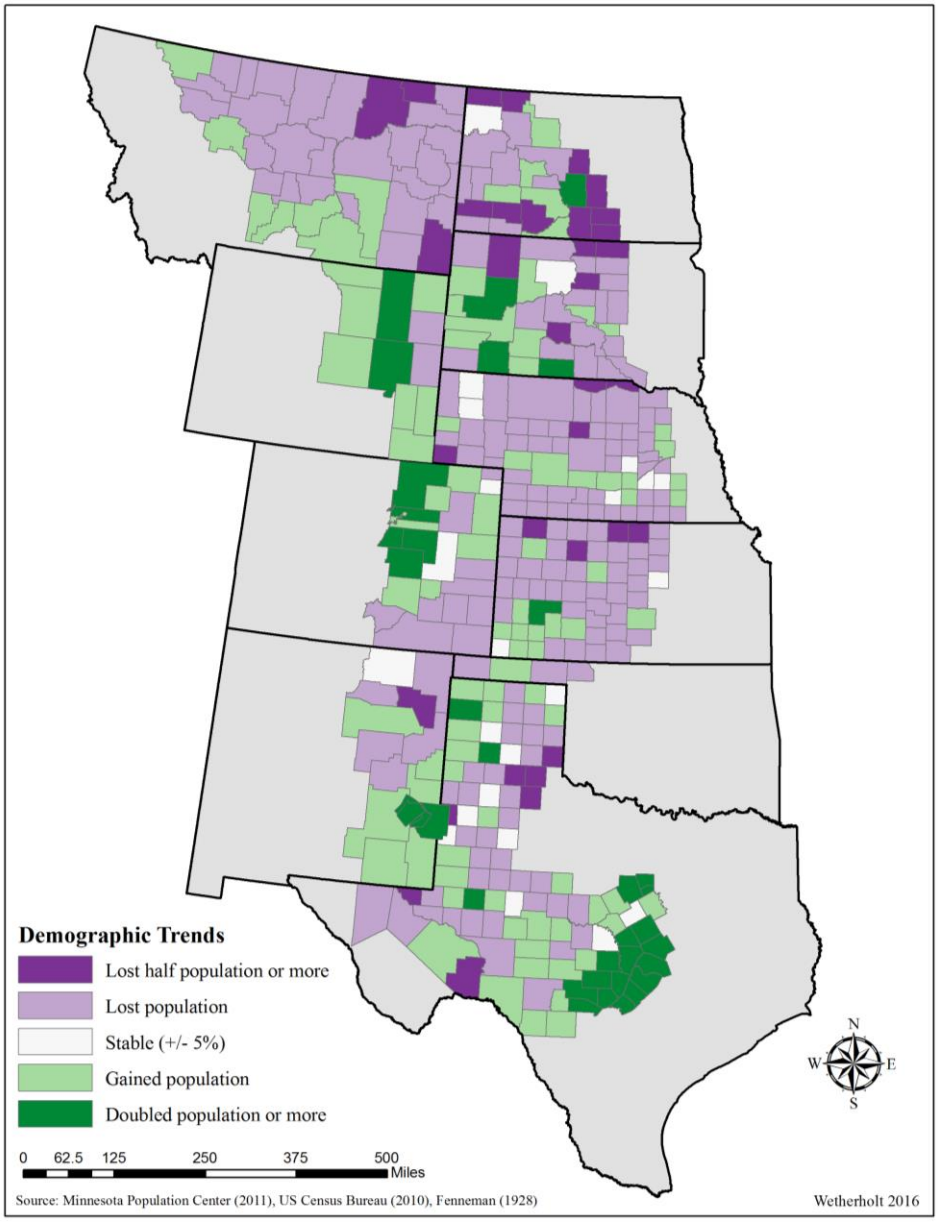

Figure 2.11 Great Plains population change, 1960-2010.

Metropolitan counties on the periphery of the Great Plains see the majority of growth. Counties containing cities like Billings, Cheyenne, Fort Collins, Denver, Colorado Springs, San Antonio, Austin, and Bismarck have grown or doubled their populations since 1960. There are a few smaller interior metropolitan and micropolitan areas growing as well, like Amarillo, Midland/Odessa, Garden City, Grand Island, and Rapid City. In fact, by 2000 more than 70% of Great Plains inhabitants resided in one of the region's 63 Metropolitan Statistical Areas (Archer and Lonsdale 2003). This pattern leaves behind a region whose rural interior is atrophying; some counties have lost more than half of their total population.

Reasons for Leaving the Great Plains

Not all interior portions of the Great Plains are experiencing population decline. White (1994) illuminated the demographic variability that exists in interior portions of the Great Plains' High Plains sub-region. Regional centers in southwestern Kansas − Garden City, Dodge City, and Liberal − are "Ogallala oases" that support agriculture, feedlots, and meatpacking (White 1994), but they are built upon the exploitation of finite water reserves below them (Peterson, Marsh, and Williams 2003). The rates of aquifer use exceed the rates of recharge in many areas (Peterson, Marsh, and Williams 2003, McGuire, Fischer, and Stanton 1999); in some places rates of pumping exceed water recharge by as many as 40 times (Sophocleous 2005), and if the High Plains aquifer can no longer sustain the needs placed upon it, these communities will have some serious issues to confront (Brown 2013). Portions of Kansas and Texas have had more than a 25% decrease in the overall thickness of the aquifer (McGuire et al. 2003). Steward and Allen (2015) provided a projection of the High Plains aquifer's thickness through 2110 (Figure 2.13).

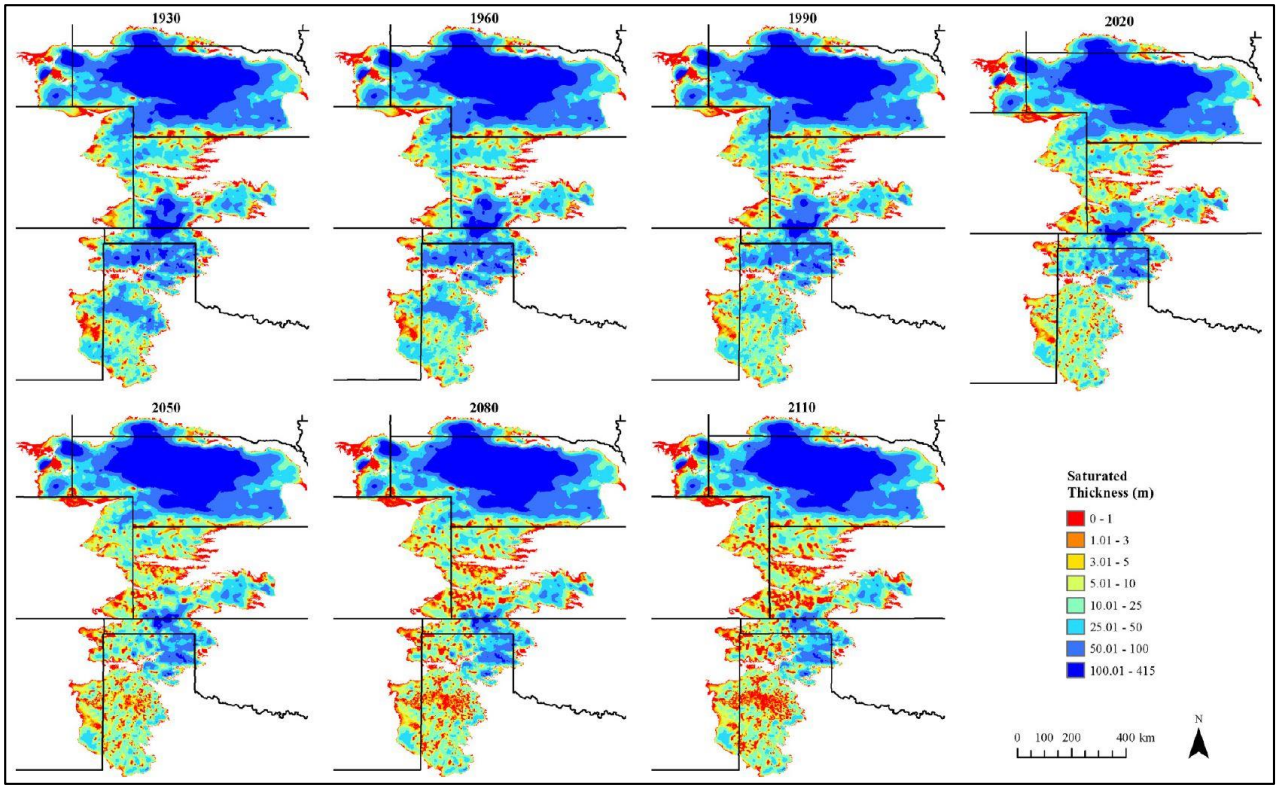

Figure 2.12 High Plains aquifer thickness projected through 2110 (Steward and Allen 2015).

The settlement, as well as avoidance, of the Great Plains based on misconceptions of its resources is nothing new (Hudson 1973). Long is the number of tales recounting the attempt to settle portions of this region. The struggle here is iconic, and its melancholy scenes are still explored more than a century after taming the frontier:

> This is the place where American assumptions about the land proved wrong. The homesteaders believed the rain would follow the plow. In the grasslands of western Kansas, Nebraska, and the Dakotas, they learned better. And so for almost a century we've watched stranded towns and houses fall one by one like autumn leaves in the chill of October. In most of the United States, abandoned buildings are a sign of change and shifting economic opportunities. On the High Plains, they always mean that something in the earth and sky mutinied against the settlers (Bowden 2008, 140).

Railroads expanding westward, facilitated by alternating sections of land grants supporting transcontinental railroad development, carried waves of people with them, but also led to numerous failed settlements. In some instances, the location of a railroad was instrumental in the designation of a county's central place, and promised railroads that never came or were located elsewhere spelled failure for those that platted inopportune locations (Hudson 1973). The placement of railroad lines "made immediate ghost towns of the erroneously located places anticipating the railroad, it created a splendid example of a boom town at the point of intersection, and it eventually made ghost towns out of all those places not on the railroad" (Hudson 1973, 451).

The (lack of) attractiveness of an area's natural amenities has also been a contributing factor to population loss in the rural Great Plains (McGranahan 1999). These amenities are associated with what Flora and Flora (2007) referred to as natural capital, particularly the provision of things like clean water, fresh air, and biodiversity. Amenities such as a mild climate, varied topography, and proximity to surface water like lakes or to shorelines directly positively affect the demographic characteristics of a county; counties lacking natural amenities are more likely to experience population loss (McGranahan and Beale 2002). Counties with a surplus of such natural capital experienced population gains, with some counties doubling their overall population between 1970 and 1996. Low-scoring counties had an average population gain of a mere 1%, while more than half of the low-scorers lost over 50% of their total population (McGranahan 1999). In much of the Great Plains, natural capital is not as robust as in other regions. The natural amenities scale constructed by McGranahan (1999) scored the majority of Great Plains counties, particularly the interior portions of the region, as below average. Figure 2.14 shows the relationship between natural amenities and population change.

The portions of the Great Plains with higher amenity scores are outer areas near Colorado's Front Range, Wyoming's Bighorns, the Yellowstone River Basin in Montana, the Black Hills of South Dakota, and Texas' Hill Country.

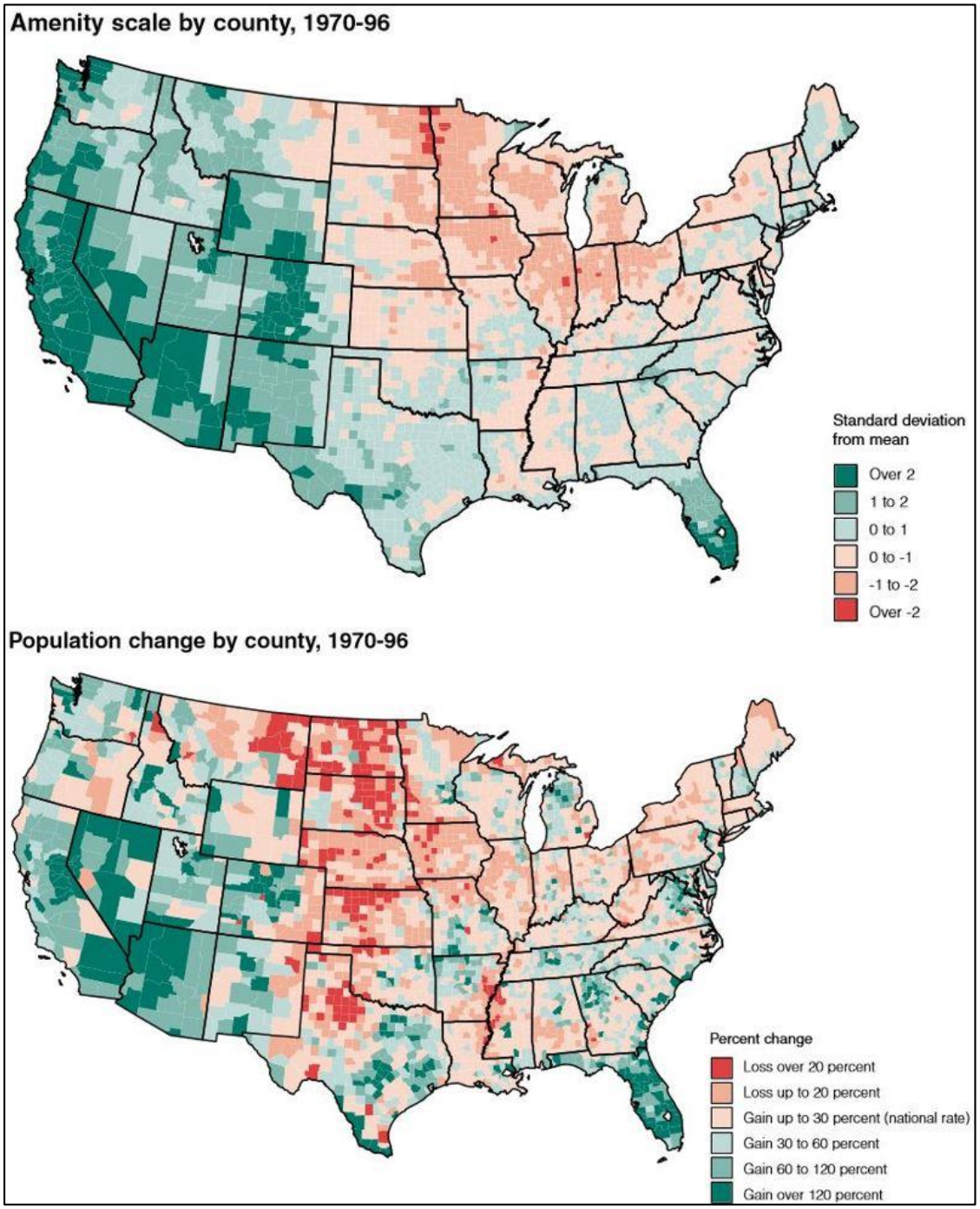

Figure 2.13 Relationship between natural amenities and population change by county, 1970-1996 (McGranahan 1999).

A lack of social amenities, particularly in the interior of the Great Plains when compared to the hustle and bustle of coastal metropolitan regions, is another push factor affecting the demographic trajectory of the region. This is especially pronounced with the age-selective outmigration of the younger, often more educated Great Plains residents, commonly referred to as *brain drain* (Carr and Kerfalas 2009). Florida (2002) found that the distribution of individuals with a bachelor's degree (or better) working in a technical or scientific field is concentrated in places with higher levels of cultural amenities, nightlife opportunities, and diversity. "Talent does not simply show up in a region; rather, certain regional factors appear to play a role in creating an environment or habitat that can attract and retain talent or human capital" (Florida 2002, 754).

Possibly the strongest push factor in the Great Plains is its overall lack of economic opportunity, which is directly associated with the agricultural dependency that dominates the region (Rathge and Highman 1998). Agriculture is vital, and there is something particularly special about how we view it compared to other economic mainstays:

> One reason may be that many families farmed the land no more than a few generations ago. But there is more to this than a historical connection. People view agriculture not as just another type of commercial economic activity but rather as an honorable way of life, one that strengthens the social and political fabric of the nation and therefore deserves protection (Power 1996, 188).

Despite our reverence for it, the current Fordist agricultural model dominating the Great Plains has severely decreased the viability of the small family farm by reducing the need for human capital due to extensive mechanization (Wood 2008, Haas 1990). This mechanizing of our food system enabled for more production, but undermined the necessity of physical labor compared to traditional agricultural practices once commonplace with homesteaders in the region. Operating a farm today does not require the manpower of a large family to work the

land the way it once did. Now, heavy farm equipment supported with advanced precision agriculture does much of the heavy lifting. Precision agriculture is the application of geospatial technologies like geographic information systems, remote sensing with unmanned aerial vehicles (drones), and the global positioning system to help manage resource applications and environmental impacts of cultivation operations (Zhang and Kovacs 2012; McBratney, Whelan, and Ancev 2005). There are fewer farm families now and families are smaller, while the farms are much larger, more efficient, and vertically-integrated into the agribusiness system (Wood 2008). For kids in agriculturally-dependent portions of the Great Plains, the lack of options for gainful employment often leads them elsewhere once they graduate (Carr and Kefalas 2009).

Summary

Attachment to place is an ambiguous concept with many varying interpretations. Place attachment manifests itself in a variety of ways: social networks, personal experiences, historical ties, physical attachments, and so forth. These attachments can stand alone or overlap, and occur over varied scales. Rural areas are also subject to a spectrum of definitions. "Rural" is often what's left once "urban" has been defined. Rural areas vary greatly as well: fishing communities, isolated coal towns, retirement destinations, logging villages, dispersed farming communities – all are rural, and all have their sets of challenges. The Great Plains, too, are a subject of debate as to their official delineation. Its demarcations are myriad, and while there are varied boundaries, there is no universal boundary to which all agree.

This study investigates the attachments to place residents have in very rural portions of the Central Great Plains counties of Kansas and Nebraska, specifically exploring what keeps residents rooted to these places when many others have moved away. The next chapter provides an overview of the study area.

Chapter 3 - Study Area Definition

Although there is a common perception of the Great Plains as a wide expanse of monotonous 'flat' land, the region is far more diverse than this image. The fact that there is no universally-accepted "all-purpose definition" of the Great Plains suggests as much (Hudson 2011, 1). A variety of grassland ecosystems dominate the region (Lavin, Shelley, and Archer 2011). Rainfall increases from west to east here, and dictates the types of native grasses and other flora present (Commission for Environmental Cooperation [CEC] 1997). In the eastern portions of the Great Plains, higher rainfall amounts support tallgrasses while mixed-grass prairies are found in the central Great Plains, and short-grass in the west (CEC 1997). This region is one of the largest farming and ranching areas in the world; agriculture is the most dominant land use type, as well as the region's economic mainstay (CEC 1997). Corn is increasingly found in the region despite falling outside of the traditional Corn Belt: from 1950 to 2009, the production of corn in Kansas alone rose from 85 million bushels to 561 million bushels (Laingen and Craig 2011). Historically, much of this area has been peripheral or marginal to corn production (Napton and Graesser 2011). In other areas where agriculture doesn't dominate the landscape, cattle ranching can be found (Hudson 2011).

In addition to a decline of population in interior portions of the Great Plains as peripheral urban areas expand, there has also been a decline in the number of young adults in the region in the population structure. This demographic pattern is what Carr and Kefalas (2009) refer to in their book *Hollowing out the Middle*: a hollowing of the population pyramid in portions of rural America. Many young adults move away from rural areas for education and employment opportunities, and are unlikely to return. The loss of young adults and accompanying *brain drain* of talented individuals in areas that need labor to support existing industry, as well as to

attract and conceive of new opportunities, causes multiple difficulties. Not only does brain drain result in a lack of trained individuals applying their trades and professions, it also means fewer young families to support shrinking school enrollments – all of which undermine the sustainability of smaller communities (Carr and Kefalas 2009). In 2007, the nonmetropolitan counties of the Great Plains had a higher proportion of residents aged 65 and older compared to most of the United States (18 percent compared to the U.S. average of 13 percent) (Wilson 2009). Wilson (2009) noted that similar conditions exist in other portions of the country, but the Great Plains have extensive geographic areas exhibiting these characteristics. The metropolitan Great Plains counties had a lower proportion of residents 65 and older compared to the metropolitan counties of other regions in the United States (9.5 percent compared to the U.S. average of 12 percent) (Wilson 2009). Overall, the Great Plains "shows a regional population that is growing and diversifying in ways similar to the United States. However, when examining the data for single counties, the aging of the population and population declines become more pronounced" (Wilson 2009, 18).

Whose *Great Plains*? Regional Delineation

For this research on the Great Plains, a specific study area had to be defined. While the Great Plains (and Canadian Prairies) receive attention in nearly every regional geography text and atlas of North America, Rossum and Lavin (2000) pointed out that this region is complex and subject to individual interpretation. Delineations of the region have usually agreed on the western border terminating at the foothills of the Rocky Mountains, but the northern and southern limits have been less concrete. The most commonly-accepted northern terminus is where the taiga begins in the Prairie Provinces; its southern counterpart is the edge of the Edwards Plateau in Texas (Hudson 2011). The eastern border has been far fuzzier. A semi-arid

climate is a defining feature of the Great Plains, but it has a longitudinal precipitation gradient where rainfall generally increases from west to east (Lavin, Shelley, and Archer 2011). The 100th and the 98th Meridians have each served as the eastern fringe of the Great Plains by various accounts (Webb 1931, Bennett et al. 1936, Borchert 1950, Popper and Popper 1987), but boundary zone is an appropriate term, as the region seems to blend into its eastern neighbors without major consensus on its delineation.

This study uses the physiographic definition of the Great Plains from Fenneman (1928) (Figure 3.1). To create a geographic information system (GIS) working database, maps from Fenneman's depiction of the region were saved as jpeg files from a digital copy of the journal article. These jpegs were imported into ArcGIS (Esri 2013) and georeferenced using a state boundaries shapefile. Once the images were georeferenced, the boundary of the Great Plains was digitized into a shapefile of its own. An overlay analysis using the intersect tool in ArcMap was performed with a US counties shapefile and the Great Plains shapefile to create a new shapefile consisting of counties that were either completely within the Great Plains boundary or had more than half of their area within it.

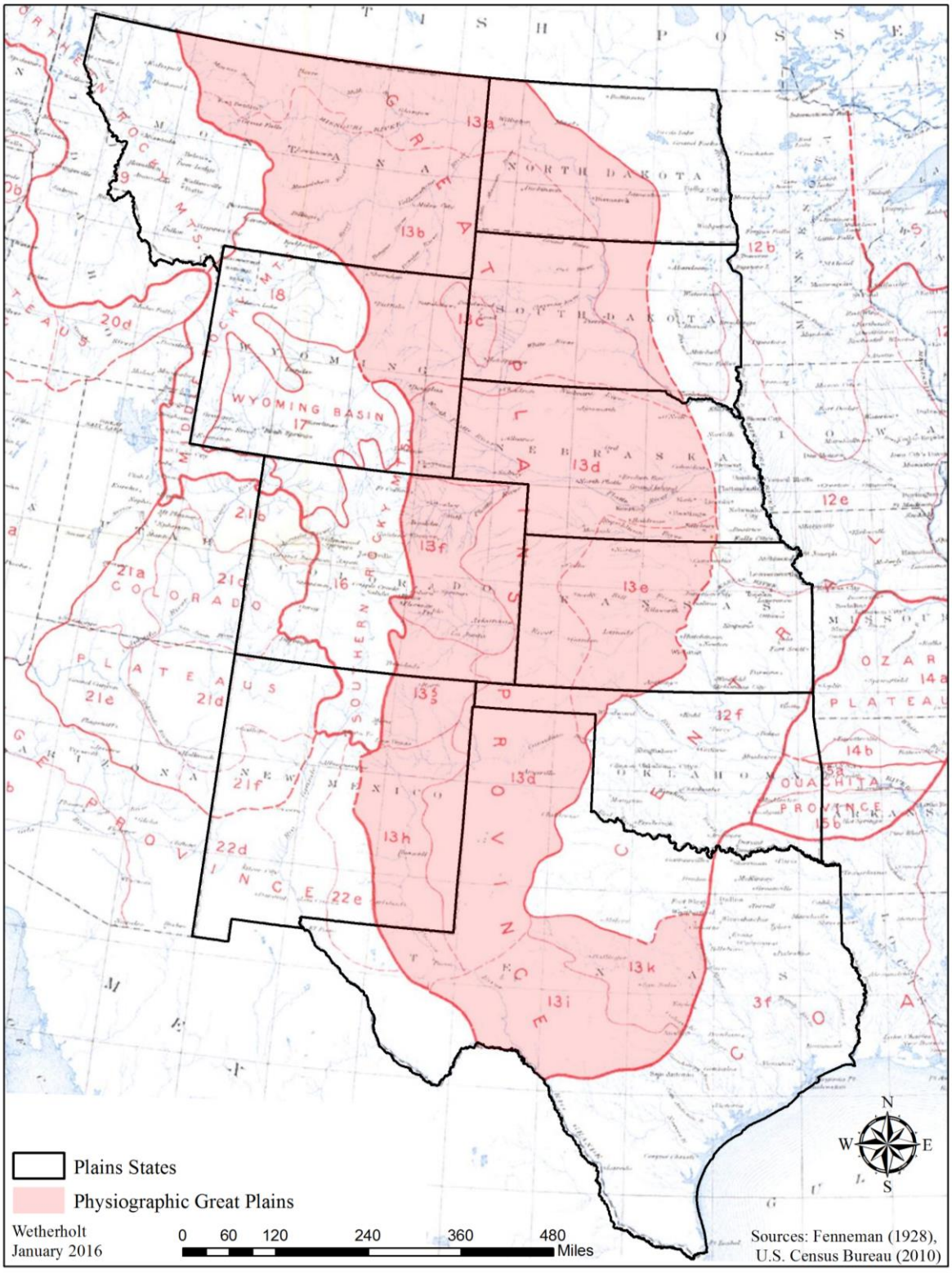

Figure 3.1 Fenneman's physiographic Great Plains region (Fenneman 1928).

Although the overall Great Plains is of interest, I determined that the study region would need to be more circumscribed for time and budget reasons. Hence, the focus of this study is on Kansas and Nebraska's Great Plains counties. This part of the Great Plains embodies the range of demographic characteristics and policy-related issues that are outlined in this chapter. Some portions of the study area, like some of Kansas' southwestern counties, are growing, but large swaths of counties have lost nearly a third of their population in the last 50 years. Some have lost more than half of their population in that time.

To identify the specific Great Plains counties of Kansas and Nebraska, the Great Plains counties shapefile was refined to create one containing only the Great Plains counties of Kansas and Nebraska (Figure 3.2). This yielded a shapefile of 127 central Great Plains counties of Kansas and Nebraska. The included counties had a total population of 1,097,535 in 2010 (US Census Bureau 2010) (pattern indicated in Figure 3.3). The county shapefile serves as a base map and its attribute table allows other characteristics to be joined to it and subsequently mapped (*e.g.*, Urban Influence Codes and ERS rural types).

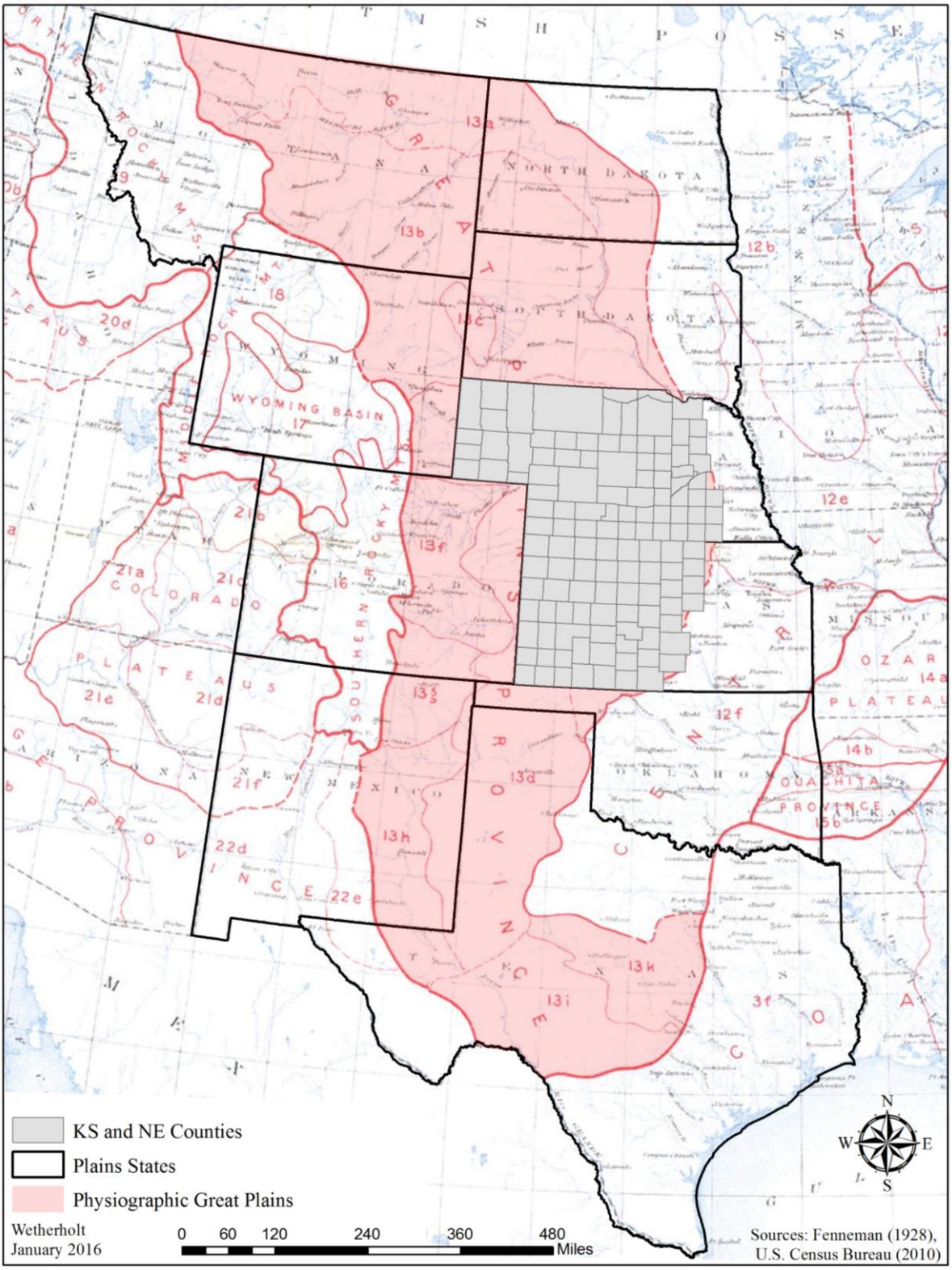

Figure 3.2 Great Plains counties of Kansas and Nebraska.

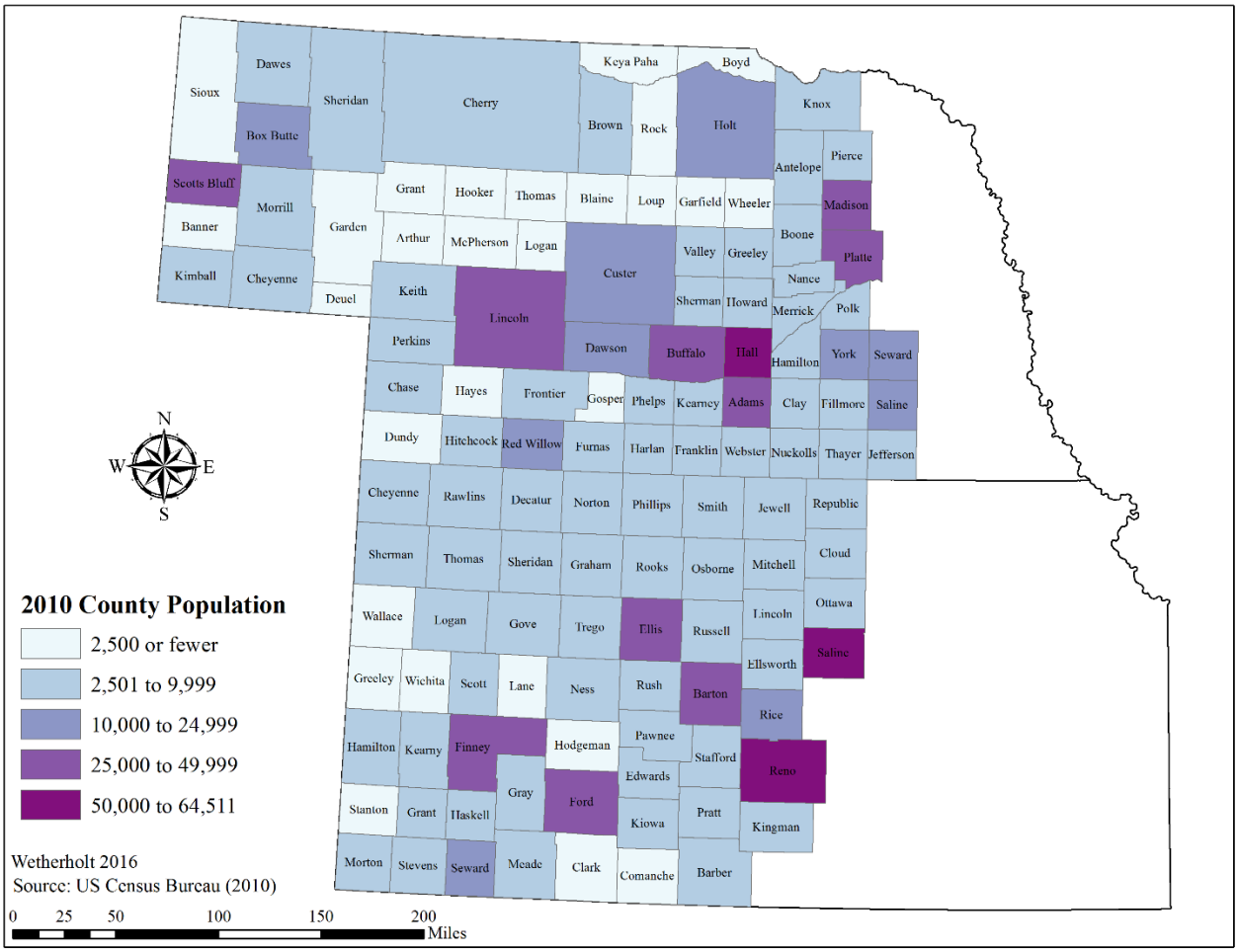

Figure 3.3 Central Great Plains population distribution, 2010. (Source: US Census Bureau 2010.)

Identifying the *Emptying Plains*

The intent of this research was to identify what elements of place encourage a resident to remain in a very rural area despite push (and associated pull) factors, so these very rural areas needed to be identified. Following delineation of Great Plains counties and the portion of Kansas and Nebraska that can be considered the central Great Plains, further spatial analysis was needed to identify places most fitting for a study focused on areas of population stress and decline. Criteria synonymous with an area that can be described as the *Emptying Plains* include

population decline, geographic remoteness, and a narrow economic base in which residents attempt to derive a living.

County Typologies

The United States Department of Agriculture's Economic Research Service (USDA ERS 2015a) has constructed a set of county typology codes in use since 1979. These codes are revised each decade and are intended to provide a better understanding of dependencies at the county level. An update of all county typology codes was completed in December 2015. There are six non-overlapping categories of economic dependence: *farming, manufacturing, mining, federal/state government, recreation*, and a designation of *unspecialized* for those counties that do not fall into one of the other five categories. There are also six policy-related themes from the ERS typology codes that do overlap: *housing stress, low education, low employment, persistent poverty, population loss,* and *retirement destination* (USDA ERS 2015a). These twelve USDA ERS typology codes are explained in Table 3.1. Table 3.2 summarizes the typology codes for the Great Plains counties of Kansas and Nebraska.

Table 3.1 USDA ERS 2015 county typology codes.

Policy type	Criteria
Overlapping policy-related themes	
Low education	≥20% of the county's population between 25 and 64 years of age lacks a high school diploma or GED in 2008-2012
Low employment	≤65% of those aged 25-64 with a job in 2008-2012
Persistent poverty	≥20% of county's residents below the poverty line for the 1980, 1990, 2000 censuses, and 2007-2011 American Community Survey 5-year average
Persistent child poverty	same as *persistent poverty* applied to residents under 18
Population loss	population decline, 1990-2000 *and* 2000-2010 censuses
Retirement destination	≥15% increase in the number of residents aged ≥60 between 2000 and 2010
Non-overlapping economic-related themes	
Farming dependent	≥25% of the county's average annual labor and proprietor's earnings derived from farming, *or* ≥8% of jobs were in mining, as measured by 2010-2012 Bureau of Economic Analysis, Local Area Personal Income and Employment data
Mining dependent	≥13% of the county's average annual labor and proprietor's earnings derived from mining, *or* ≥16% of jobs were in farming, as measured by 2010-2012 Bureau of Economic Analysis, Local Area Personal Income and Employment data
Manufacturing dependent	≥23% of the county's average annual labor and proprietor's earnings derived from manufacturing, *or* ≥16% of jobs were in manufacturing, as measured by 2010-2012 Bureau of Economic Analysis, Local Area Personal Income and Employment data
Federal / State government dependent	≥14% of the county's average annual labor and proprietor's earnings derived from Federal/State government, *or* ≥9% of jobs were in Federal/State government, as measured by 2010-2012 Bureau of Economic Analysis, Local Area Personal Income and Employment data
Recreation	Determined by a weighted index of three measures: 1) jobs and 2) earnings in entertainment, recreation, accommodations, eating/drinking places, and real estate; and 3) the share of vacant housing units intended for seasonal/occasional use. Recreation counties are those with a score more than one deviation above the mean
Nonspecialized	Did not meet the economic dependence threshold for any other type, as measured by 2010-2012 Bureau of Economic Analysis, Local Area Personal Income and Employment data

Table 3.2 USDA ERS 2015 typology codes for the 127 study area counties.

Code	Number of counties	Percentage
County Economic Types		
Farming	86	67.7%
Mining	9	7.1%
Manufacturing	8	6.3%
Federal/State	3	2.4%
Recreation	3	2.4%
Nonspecialized	22	17.3%
County Policy Types		
Low education	11	8.7%
Low employment	0	0.0%
Persistent poverty	0	0.0%
Persistent child poverty	3	2.4%
Population loss	81	63.8%
Retirement destination	2	1.6%

General identification of study area counties was based on 2004 typology codes. There were a few changes from the 2004 codes used to devise the study area to the 2015 codes, but they did not weaken the overall decision-making with respect to identification of appropriate counties for study. The 2015 codes dropped the *service* dependent designation from its economic dependence categories and added *recreation*, which was previously categorized as an overlapping policy-related category called *nonmetro recreation*. The 2015 codes also dropped the *housing stress* category from the policy-related themes. The two categories most influential in selecting the study area, *farming* and *population loss*, did not witness substantial changes. Two more counties were categorized as *farming* dependent counties in 2015 (from 84 to 86 counties) and there were four fewer *population loss* counties (from 85 to 81 counties). Between 1960 and 2010, all study area counties still had lost at least 30 percent of their population (the *Emptying Plains*). The largest changes in the 2015 codes were in *mining* (from 1 to 9 counties) and *low education* (from 4 to 11 counties).

Areas of Population Loss

While the population of the entire Great Plains has nearly doubled in the last 50 years, to more than 10 million, much of this growth is in peripheral metropolitan areas (Wilson 2009). A majority of the study area − 81 of 127 counties − is beset by population loss (Table 3.2). A majority of central Great Plains counties declined during both 1990-2000 and 2000-2010 (Figure 3.4). Aside from the eastern margin of the study area, southwestern Kansas, and Nebraska's Interstate 80 corridor, nearly all of the remainder is depopulating. Population loss counties are the most important to this study in terms of selecting the appropriate study population (i.e., the stayers in a county with many leavers). Even more pronounced population decline of at least 30 percent over the last 50 years (1960-2010) (Figure 3.5) better illustrates those counties with population loss stress. While somewhat arbitrary, this threshold better delineates the *Emptying Plains* compared to the USDA ERS *population loss* designation with a longer temporal scale and higher level of outmigration.

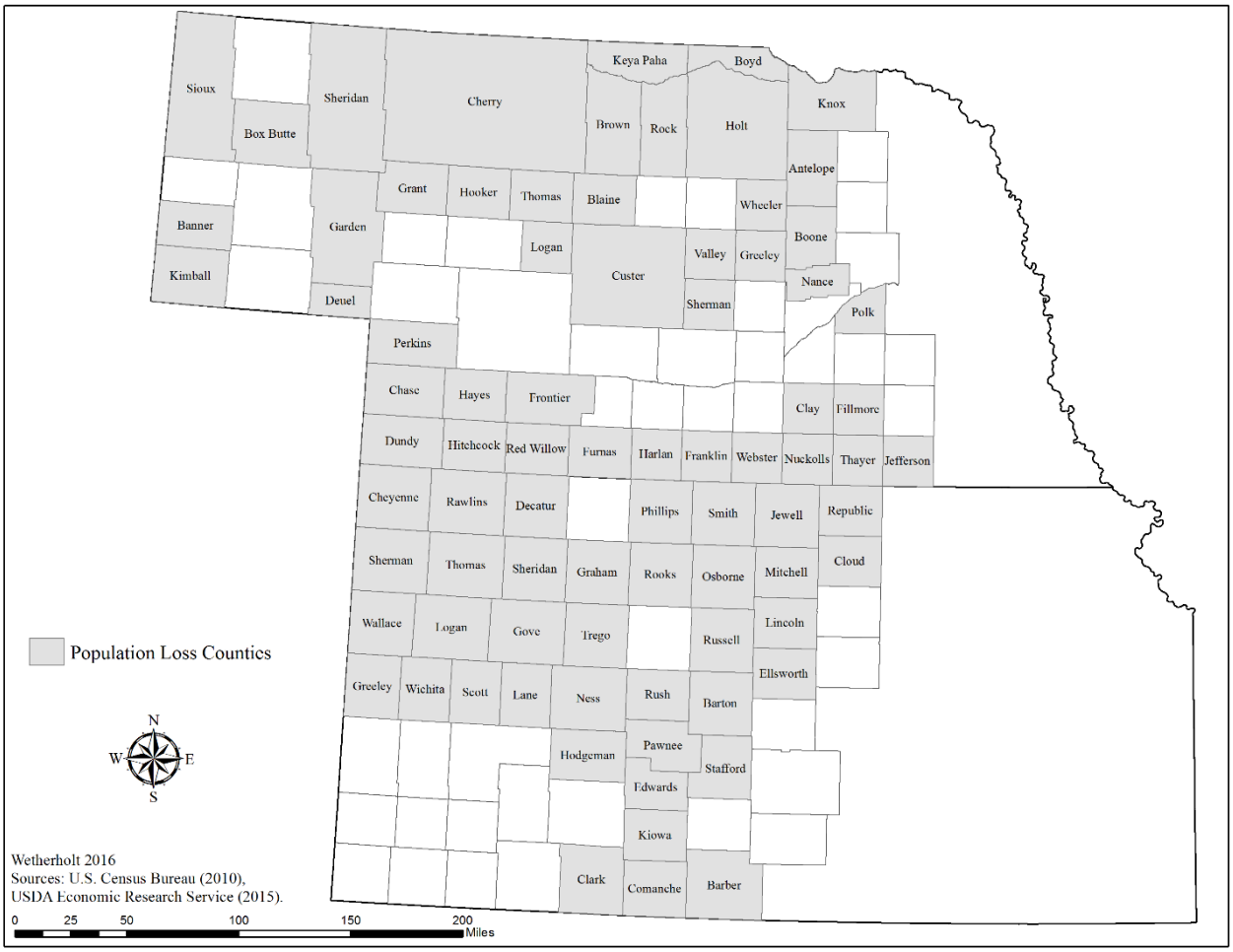

Figure 3.4 USDA ERS population loss counties, with losses in both 1990-2000 and 2000-2010 decadal periods (USDA ERS 2015a).

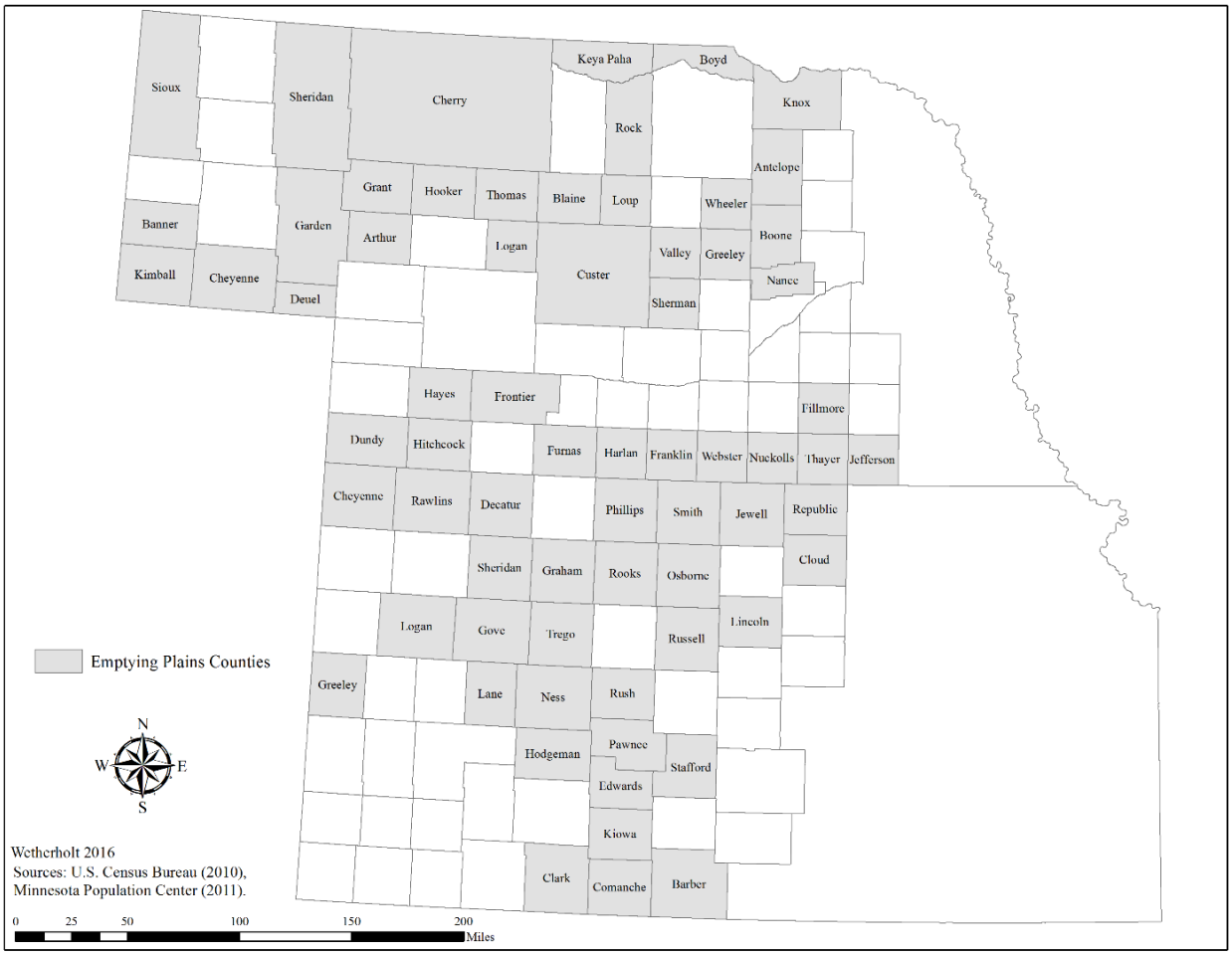

Figure 3.5 Study area counties that have lost 30% or more of their population, 1960-2010 (Minnesota Population Center 2011, U.S. Census Bureau 2010).

Areas of Narrow Economic Opportunity

Economic dependency in the study area is largely on primary economic activities like farming and ranching operations, although related secondary industries and services/government also play important roles. Figure 3.6 shows a common agricultural scene in the study area. Eighty-six of the 127 counties are defined as farming dependent, with an annual average of 25 percent or more of the county's total earnings from farming during 2010-2012, or at least 16 percent of the residents in farming occupations (U.S. Department of Commerce Bureau of Economic Analysis 2015) (Figure 3.7). The spatial pattern of this farming dependency is similar

to population loss, with the exception being some counties in Kansas' southwestern corner. The demand for labor associated with meatpacking and factories has resulted in significant in-migration of people to Southwestern Kansas, many with Latino or (for a time) Southeast Asian ethnicity (Harrington et al. 2003). Much of the economic development in this portion of the state is owed to the use of central-pivot irrigation to utilize the Ogallala-High Plains aquifer system, from which an abundance of cheap feed grains could be produced, with attraction of large-scale feedlots beginning in the 1970s (Broadway and Stull 2006). The population centers like Dodge City, Garden City, and Liberal are what White (1994) referred to as *Ogallala Oases*. Harrington, Lu, and Harrington (2009) noted that much of Southwestern Kansas relies upon declining groundwater resources, whether for farming or to supply community demand for fresh drinking water.

Figure 3.6 A field of wheat is harvested in Jewell County, Kansas (Wetherholt 2015).

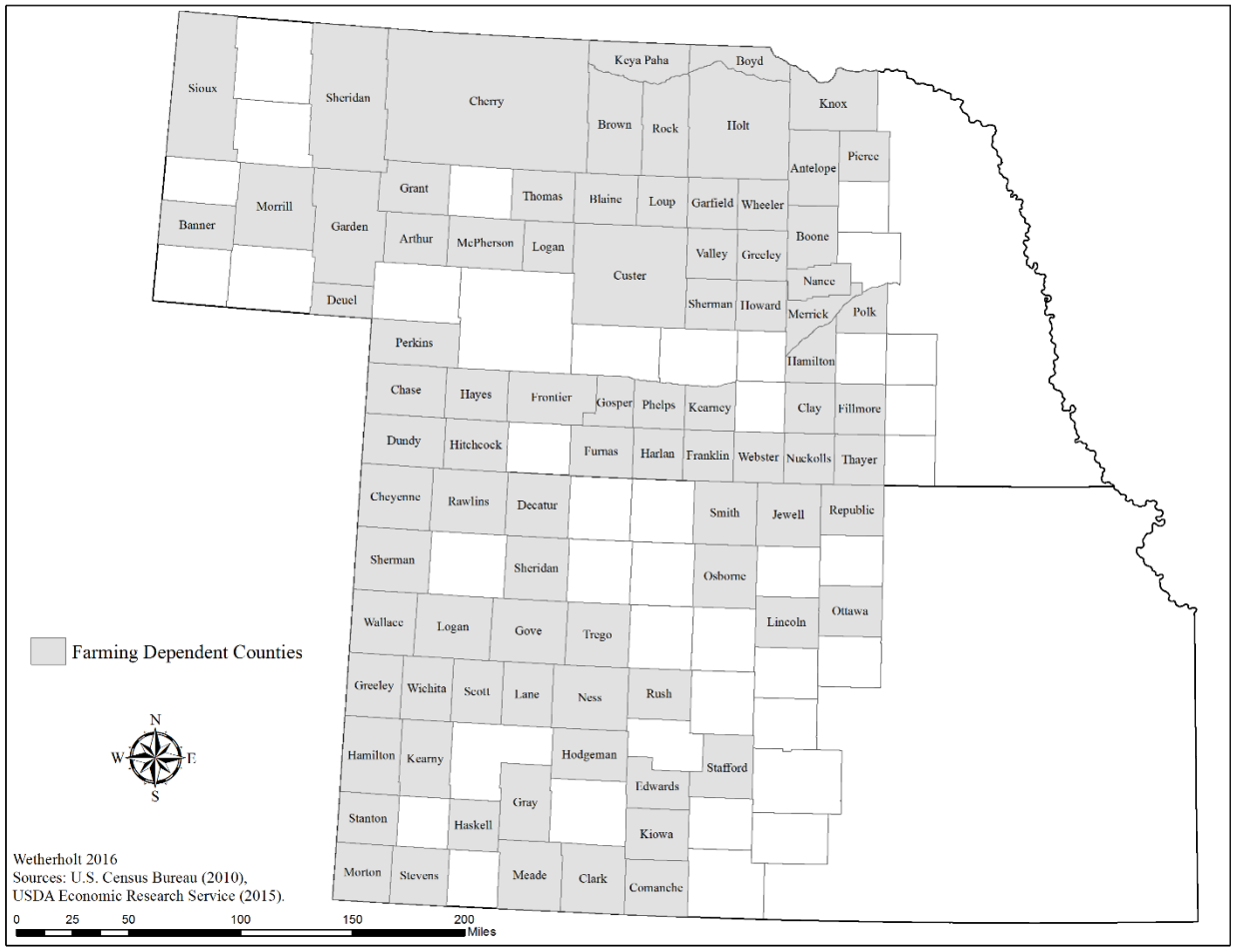

Figure 3.7 USDA ERS farming-dependent counties (USDA ERS 2015a).

Areas of Geographic Remoteness

In addition to population loss and a narrow economic base, the *Emptying Plains* are geographically remote. The ERS developed Frontier and Remote (FAR) codes that identify areas based on sparse populations and temporal distances from urban influence (USDA ERS 2015b). There are four FAR codes; the most restrictive FAR code, Level 4, identifies places that are 60 minutes or more from urban areas of 50,000 or more people, 45 minutes or more from urban areas of 25,000-49,999, 30 minutes or more from urban areas of 10,000-24,999 people, and 15 minutes or more from 'urban' areas of 2,500-9,999 people (Figure 3.8). Figure 3.9 exemplifies the austere landscapes encountered in a FAR 4 area of the Kansas High Plains.

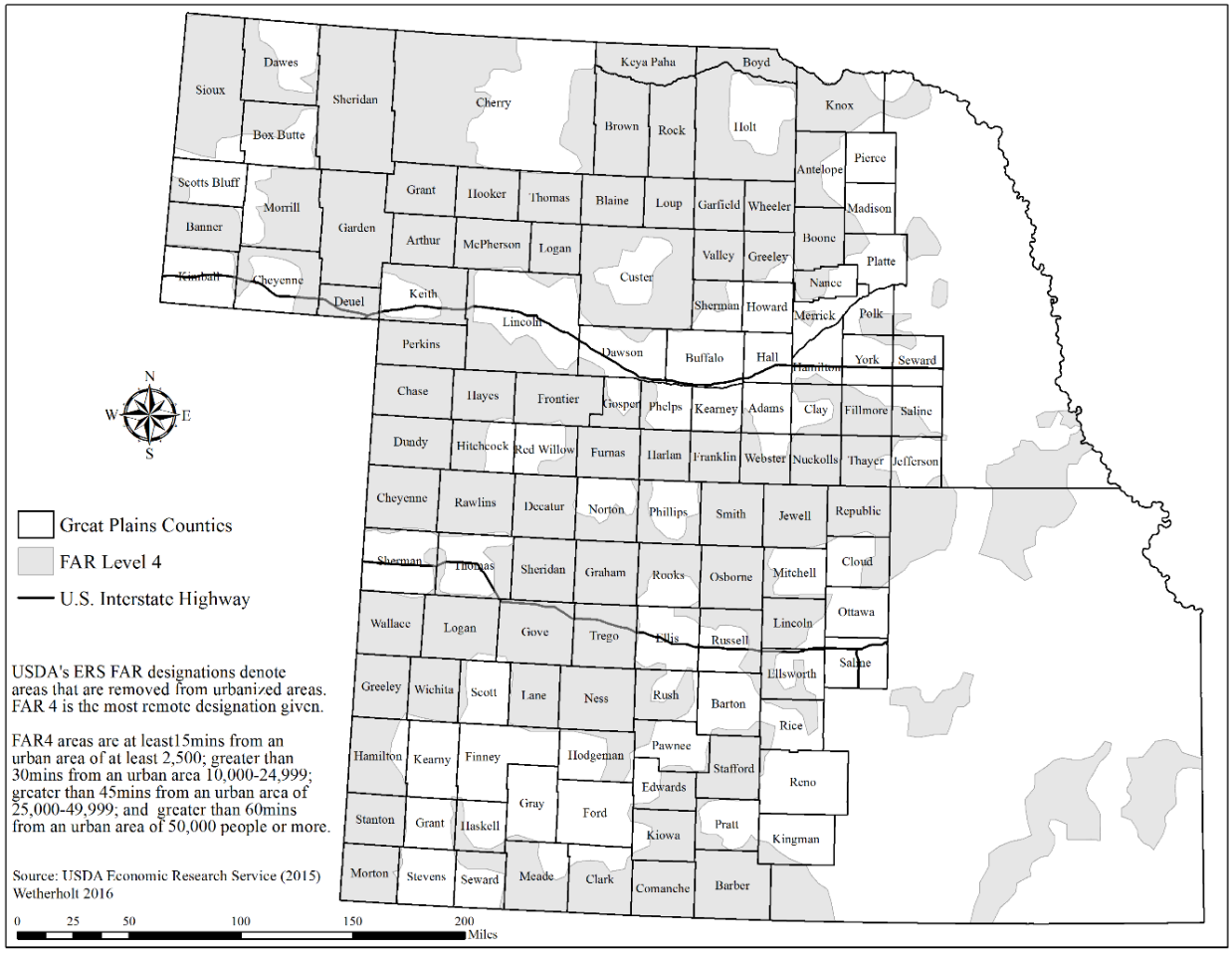

Figure 3.8 USDA ERS FAR Level 4 areas: Extreme remoteness in Kansas and Nebraska (USDA ERS 2015b).

Figure 3.9 Geographic remoteness in Hodgeman County, Kansas (Wetherholt 2015).

Remoteness corresponds with a lack of connectivity among the most isolated places in the central Great Plains and its population centers. The ERS also maintains a set of county-level codes called Urban Influence Codes. These codes are based on Office of Management and Budget (OMB) definitions of Core Based Statistical Areas (CBSA): metropolitan counties are classified as large or small, micropolitan counties are classified by adjacency to metropolitan counties, and non-CBSA (i.e., rural) counties by the size of the county's largest city or town and its adjacency to nearby CBSAs (USDA ERS 2013). Codes range from 1 to 12 (Table 3.3). A designation of 1 is for a metropolitan county with a population greater than 1 million. A code of 12 identifies a non-CBSA county that is not adjacent to a metropolitan or micropolitan county and does not contain a town with a population over 2,500. The majority of Kansas and Nebraska's Great Plains counties are rural and non-adjacent to larger population areas (Figure 3.10; Table 3.4).

Table 3.3 USDA ERS Urban Influence Code types.

Code	Criteria
Metropolitan counties	
1	In large metro of 1+ million residents
2	In small metro of less than 1 million residents
Nonmetropolitan counties	
3	Micropolitan area adjacent to large metro area
4	Noncore (non-MSA) adjacent to large metro area
5	Micropolitan area adjacent to small metro area
6	Noncore adjacent to small metro area and contains a town of at least 2,500 residents
7	Noncore adjacent to small metro area and does not contain a town of at least 2,500 residents
8	Micropolitan area not adjacent to a metro area
9	Noncore adjacent to micro area and does not contain a town of at least 2,500 residents
10	Noncore adjacent to micro area and contains a town of at least 2,500 residents
11	Noncore not adjacent to metro or micro and contains a town of at least 2,500 residents
12	Noncore not adjacent to metro or micro and does not contain a town of at least 2,500 residents

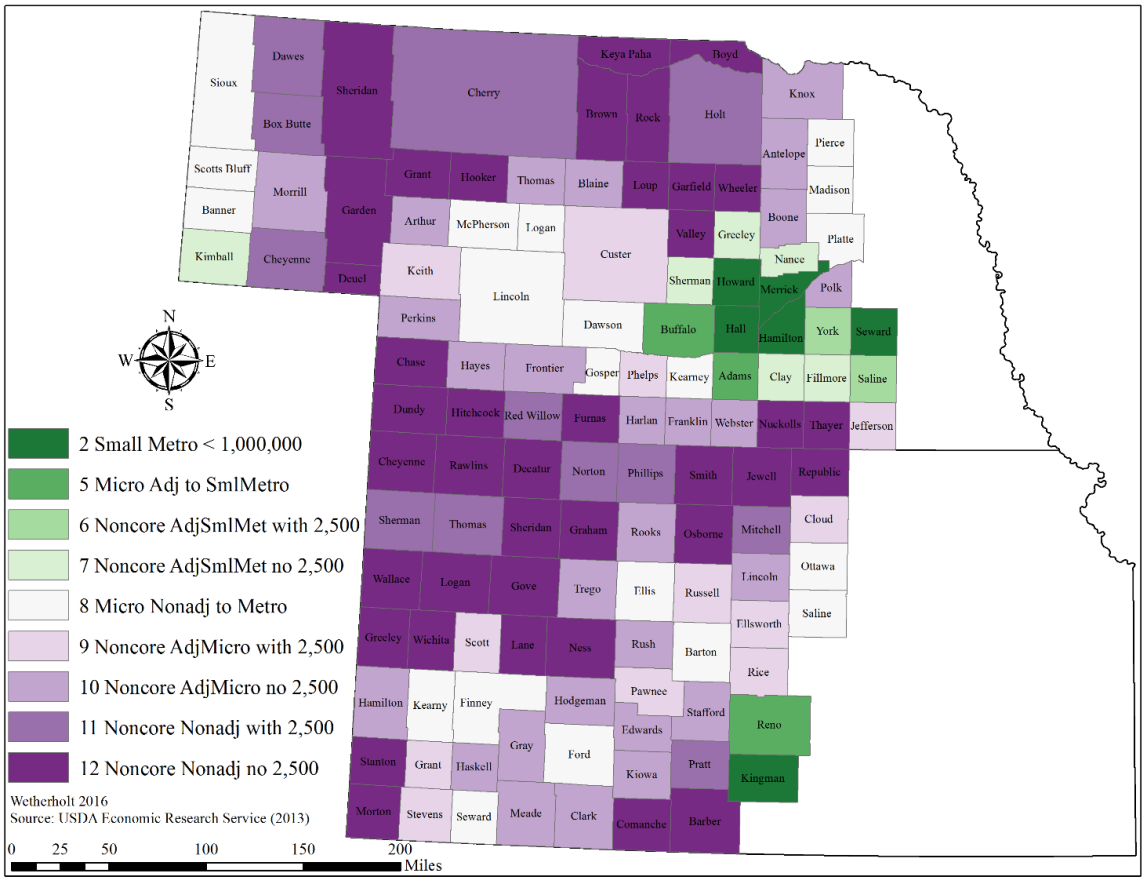

Figure 3.10 USDA ERS Urban Influence Codes, Central Great Plains (USDA ERS 2013).

Table 3.4 USDA ERS Urban Influence Codes for the 127 study area counties.

Code	County total	Percentage
Metropolitan counties		
1	0	0.0%
2	6	4.7%
Nonmetropolitan counties		
3	0	0.0%
4	0	0.0%
5	3	2.4%
6	2	1.8%
7	6	4.7%
8	20	15.8%
9	12	9.5%
10	27	21.3%
11	12	9.5%
12	39	30.7%

Subregions of the Study Area

Kansas and Nebraska's Great Plains counties' population characteristics, identified economic and policy-related themes, urban-rural hierarchies, and portions of geographic remoteness result in a set of subregions that aid in distinguishing among counties and help identify areas to select for sampling (Figure 3.11). The study area includes a population archipelago of micropolitan centers strung along Nebraska's Interstate 80 corridor west of the urban core of the Grand Island Metropolitan Statistical Area. There is also the micropolitan island of Hays (Ellis County) on Kansas' less-populated Interstate 70 corridor, a growing Hispanic realm in Southwestern Kansas facilitating meat-packing and its associated activities, and the counties along the eastern fringe that typically have higher populations and stronger linkages to metropolitan areas east of the Great Plains. I call the large remainder of this region − corresponding with population loss, a narrow economic base, and extreme geographic remoteness − the *Emptying Plains*. These counties constitute a theoretical region with a 2010 population of 238,775 that has lost more than 40% of its overall population in the last 50 years (Minnesota Population Center 2011; US Census Bureau 2010). This is the area targeted for this sequential mixed method study.

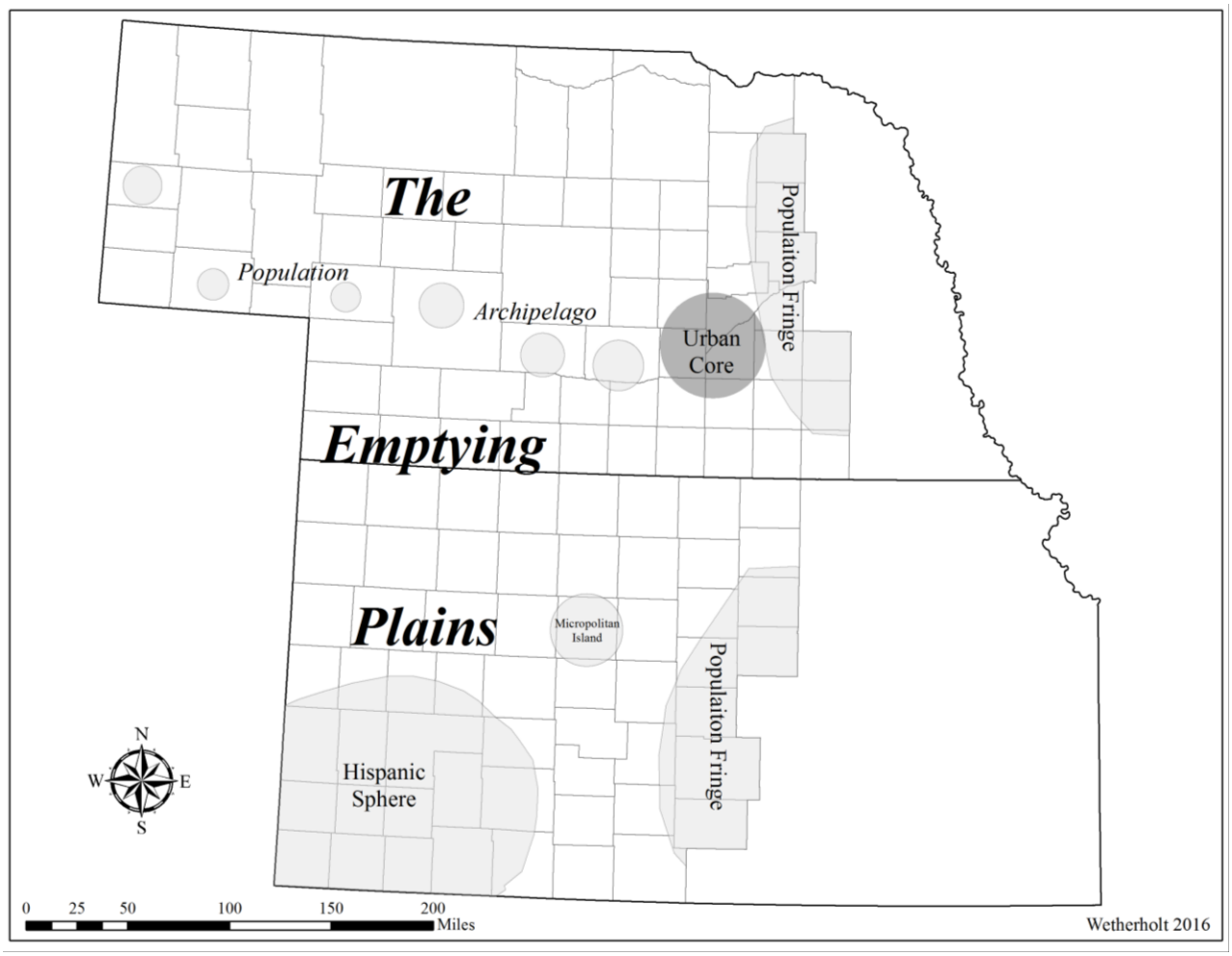

Figure 3.11 Theoretical regions of study area.

Summary

This study uses Fenneman's (1928) physiographic definition of the Great Plains to identify the Great Plains counties of Kansas and Nebraska. ArcMap was used to georeference images of Fenneman's (1928) maps of the Great Plains region to digitize a boundary of the region into a shapefile. This Great Plains shapefile was then overlaid on a US counties shapefile to perform an intersect that yielded 127 Great Plains counties of Kansas and Nebraska. The shapefile of Kansas and Nebraska's Great Plains counties also allowed other attributes in tabular format (ERS codes, demographic data, etc.) to be joined to it and mapped for regional

characteristics. This provides a multifaceted view of the region and a more purposeful selection of counties targeted to address questions related to population decline. Specifically, a portion of Kansas and Nebraska's Great Plains counties identified here as the *Emptying Plains* exhibit farming dependency, decades of population decline, extreme geographic remoteness, a lack of urban influence, and narrow economic opportunity.

The Great Plains counties of Kansas and Nebraska are like a microcosm of the larger region: more populated along its periphery, plagued by interior outmigration, agriculturally-dependent, economically-constrained, geographically-remote in many portions, and facing a multitude of challenges arising from these conditions. Popper and Popper (1987) suggested many of these remote communities should be abandoned and their inhabitants relocated to larger regional centers, much to the dismay of these communities.

It is the moorings people have to very rural places that inspires the scope of this dissertation. These attachments to place seem to stand in the face of any dismal demographic projection or daring policy initiative to convert it into a collective commons. While the Emptying Plains are emptying, they are not empty, and many of its remaining residents are strongly attached to where they live. A better understanding of the place attachments individuals have in these depopulating portions of the central Great Plains can aid policy makers with locally constructed knowledge about what it is that keeps residents rooted, which can then hopefully be used to address population decline.

Chapter 4 - Methods

A sequential mixed method approach was conducted in order to gain a better perspective on the aspects of place that contribute to an individual's rootedness in the most rural and depopulating portions of the central Great Plains, as well as to empower its policy makers with locally-sourced feedback about perceived strengths and weaknesses to potentially help craft finely-tuned strategies aimed at reversing population loss. Methods included the use of a mailed questionnaire followed by focus groups. Not only did this approach provide rich qualitative data to compliment quantitative results, it facilitated triangulation of findings for a more holistic view of the aspects of place that encourage someone to remain when so many others have moved away.

Mixed Methods Research

Grounded theory is a qualitative approach advanced by Barney Glaser and Anselm Strauss in 1967 (Corbin and Strauss 2015) and is the theoretical framework I employ in this research. Grounded theory draws upon pragmatism and symbolic interactionism, incorporating some of their important principles (Corbin and Strauss 1990). One principle deals with change: phenomena are not viewed as static, but as changing due to prevailing conditions. Thus it is important to build change, through process, into the grounded theory method. The second principle is the rejection of both determinism and nondeterminism. Possibilism is much more at play: actors have the means of controlling their destinies by responses to conditions, and can make choices based on perceived options. Therefore, grounded theory attempts to uncover conditions that are present but also to explore how actors respond to these conditions and the consequences that arise from their actions (Corbin and Strauss 1990, Corbin and Strauss 2015).

A mixed method approach (Creswell 2009) was employed in this research to have a better understanding of the varied elements of place that encourage rootedness in the very rural central Great Plains counties of Kansas and Nebraska. Creswell (2009) attributes the development of the mixed methods approach to the work on psychological traits like personality, aptitude, and attitude by Campbell and Fiske (1959). These two researchers constructed a multimethod matrix in order to display the correlations that result from "when each of several traits is measured by each of several methods" (Campbell and Fiske 1959, 81). Using multiple methods to validate research was a new approach at the time, but in the 50 years since, mixed method work blossomed to be incorporated by a variety of disciplines through a multitude of combinations. The main argument for mixed methods is that the bias embedded in a single method could potentially be mitigated by using other methods as well (Creswell 2009). Jick (1979, 602) applied the term *triangulation* as "the combination of methodologies in the study of the same phenomenon." Triangulation's origin is in military strategy as the employment of multiple reference points to locate an exact position. Applied to research, triangulation yields a more holistic view of the subject under investigation that may not be uncovered through a single approach (Jick 1979).

A sequential explanatory design of mixed methods is characterized by the collection and analysis of quantitative data in the initial phase, and the collection and analysis of qualitative data in the second phase (Creswell 2009). A sequential explanatory strategy attempts to elaborate or expand on the findings of the first method with a follow-up in a process that yields data that are interconnected. In particular, for this research the findings of a questionnaire mailed to residents in very rural counties of Kansas and Nebraska's Great Plains are expanded upon through three focus groups.

Questionnaire-Based Procedures

Rationale and Design

The purpose of the survey was to explore the place attachment residents have in the very rural and depopulating counties of the central Great Plains, and better understand the diversity of their experiences of place. These experiences include a respondent's perceptions and evaluations of place: the physical, social, personal, temporal, and economic aspects of locale. Place attachment literature reviewed in Chapter 2 provided the framework to develop questions with the objective of exposing these perceptions and evaluations of the Emptying Plains. Rationale for questioning is provided in the appendices.

The structure and delivery of the mailed questionnaire follow *The Tailored Design Method* (Dillman, Smyth, and Christian 2009). This design, made popular by Don Dillman, includes the mode of delivery (often called 'the Dillman method'), the physical dimensions of the questionnaire, its layout for open-ended and Likert-style questions, sample sizes needed for a representative population, and aesthetic considerations.

Jewell County Questionnaire Pilot

Pilot work with the questionnaire was conducted in Mankato, Kansas (county seat of Jewell County), 18-21 August 2014. Pilot studies can benefit a project by improving reliability of research instruments for the formal study. This can be achieved through brainstorming about different ways of asking the same question, talking to respondents afterwards to try and discern how questions were interpreted, and cross-validating responses by comparing the responses of a question asked among respondents (Sapsford 2007). Some of these methods include participant-checking or "member-checking" (Bradshaw and Stratford 2010) of the study population in order to ensure that interpretation of responses is correct. This often is done with responses to

interviews in qualitative research, but some of the procedures followed here with respect to the pilot study may be regarded as participant-checking.

A relationship was established with the curator of the Jewell County Historical Society in 2013 while considering repeat photography as a component of the research. Through this community insider I was able to meet county residents at local hangouts like the Mankato pharmacy daily coffee hour, which enabled me to advertise the availability of the pilot survey (Appendix G-H). Large clasp envelopes containing the pilot materials, including mock return envelopes, were made available in the Jewell County Historical Society museum (both envelopes were given corresponding numbers from 1 to 50). While a few questionnaires were taken home and returned to the historical society the next day, nearly all completed the questionnaire at the museum; the return envelopes were only to gauge the ease of following directions on folding completed questionnaires.

Thirty-two completed questionnaires were collected over three days in Mankato. While administering informed consent documentation, I encouraged each participant to verbally ask me clarifying questions if they came up while completing the questionnaire. When a question arose, it was answered to the best of my ability, and the issue related to the survey question was noted in my field book. A few questions did prove problematic and required re-working. For instance, Question 4 originally asked "When you think about your area's natural amenities, would you describe them as: *very desirable*, *desirable*, [etc.]" Participants did not understand what "natural amenities" included, so the question was modified for the final questionnaire to read "When you think about your area's outdoor amenities (such as lakes, parks, scenery, etc.), would you describe them as: *very desirable*, [etc.]" The pilot study's member-checking was very helpful in ironing out such wrinkles prior to the survey's formal administration.

The length of time it took to complete each questionnaire was also noted. The stated time to complete the questionnaire was an estimated 15-20 minutes. It was important to verify this required time, otherwise respondents may become frustrated with a lengthy questionnaire and nonresponse error could increase. The average time to complete the pilot questionnaire was 18 minutes; the shortest time was just under 12 minutes, and the longest time to complete the questionnaire was nearly 32 minutes. In addition, the inclusion of a #10 envelope in the package allowed me to see if the return instructions were clear when it came to folding the questionnaire in half lengthwise and fitting it into the envelope. Only one of the 32 pilot questionnaires was folded incorrectly, so it appeared that there was no problem with interpreting instructions on how to return completed questionnaires.

Participant-checking also came in the way of presenting the results of the pilot work back to the community for assessment. This enabled me to talk with residents of Jewell County to discern whether or not the results I communicated were being interpreted correctly. Results of the pilot work were presented to the community in Mankato at the Ute Theatre (Figure 4.9) on the evening of 19 November 2015. The Jewell County Historical Society aided in advertising the event by word of mouth and also by putting up 11”x17” posters around Mankato (Appendix I). The presentation lasted about 45 minutes and then the session was opened to questions from the public, which went on for about another 45 minutes.

The presentation was well-received and residents concurred with the results that were communicated. This was encouraging, as an indication that participant responses were being interpreted appropriately and that what I had summarized was an accurate reflection of participant views. Many residents seemed excited (the mayor of Mankato included) that I was invested in the future of the county, and I was assured that my inquiry as a community outsider

was not perceived as condescending or morbid curiosity. What struck me most was during the discussion portion of the evening how many residents were familiar with the *Buffalo Commons* proposal posited by Popper and Popper (1987), despite it being nearly three decades old. When strategies for the survival of the area came up, so did the Popper's "daring proposal" and it was acknowledged with groans. It seemed clear that many Jewell County residents were invested in their locale, held strong emotions about its future (especially when it came to outsider prescriptions), and saw fairness in my study. I was confident in proceeding with the survey of the Emptying Plains counties and began constructing the final questionnaire for mailing.

Figure 4.1 Ute Theatre in Mankato, Kansas (Wetherholt 2014).

Selecting Participants

Ten counties of the Emptying Plains (Chapter 3) were randomly selected for questionnaire distribution: five in Kansas and five in Nebraska; five adjacent to micropolitan statistical areas (mSA) and five not adjacent (Figure 4.8). Ghelfi and Parker (1997) suggested that nonmetropolitan counties adjacent to small metropolitan counties are healthier demographically when it comes to population trends; between 1980 and 1995, nonmetro counties

adjacent to small metros grew faster than those that were not adjacent to small metro counties. While Ghelfi and Parker (1997) did not discuss this phenomenon with respect to mSAs, which include a central city between 10,000 and 49,999 residents (and was not conceived until 2003), they do suggest that adjacency to *smaller* growth poles benefits the population characteristics of nonmetropolitan counties. I extended this concept to suggest that mSA-adjacent Emptying Plains counties are healthier demographically than their mSA-nonadjacent counterparts. Because of this, residents in mSA-adjacent counties may indicate that they are less likely to leave or may provide feedback that is suggestive of stronger levels of attachment than those in the nonadjacent counties that have been selected.

These hypothesized relationships would suggest that Emptying Plains counties adjacent to mSAs will have higher average reported levels of attachment or other positive indicators of rootedness in their responses when compared to nonadjacent counties. Of the nearly 1.1 million residents in the 127 counties that make up Kansas and Nebraska's Great Plains, fewer than one in four (238,775) live in the 68 counties that constitute the *Emptying Plains* (US Census Bureau 2010). In order to have a better understanding of the aspects of place encouraging rootedness in these emptying counties, a representative sample was obtained to report questionnaire results with higher confidence. Two manila envelopes (one for Kansas and one for Nebraska) containing the names of the 68 Emptying Plains counties on folded slips of paper were used to randomly select the counties to be surveyed. Ten counties were randomly selected, five from Kansas and five from Nebraska. It was dumb luck that five turned out to be micropolitan adjacent and five did not. The equal numbers of micropolitan-adjacent and non-adjacent counties motivated me to ask a research question about their potential effect on the rootedness of the residents.

Dillman, Smyth, and Christian (2009) provide the framework for a calculating a representative sample size for a given population, in this case the population of the Emptying Plains:

$$N_s = \frac{(N_p)(p)(1-p)}{(N_p)(B/C)^2 + (p)(1-p)}$$

where N_s is the completed sample size needed, N_p is the size of the population under investigation (238,775), $(p)(1-p)$ is the measure of the amount of variation expected in answers to the questions of interest (this term is set at the most conservative value, 0.5, which suggests 50 percent of people in the population will answer a question in the affirmative and the subsequent 50 percent will answer a question in the negative), *B* is the acceptable level of a sampling error (0.05), and *C* is the Z-statistic associated with the confidence interval (1.96 for a 95% confidence interval). Thus, Dillman, Smyth, and Christian (2009) suggest a completed sample of 383 for a representative sample of the 238,775 residents of the Emptying Plains. A list containing 200 randomly selected addresses from each of the ten selected counties was purchased from *Lorton Data*. One hundred of these addresses were selected randomly from each county, for a total sample of 1,000 households. A questionnaire was mailed to each selected address. A copy of the questionnaire is provided in the appendices.

There was some change in the overall character of the ten selected counties due to the updating of the ERS Typology Codes in December of 2015 (see Chapter 3). All ten randomly selected counties retained their *population loss* designation; however two are not classified as *farming* dependent. Hooker County, Nebraska, was re-classified as *recreation* dependent. This is not surprising with the presence of two golf courses, as well as canoeing and float trips conducted on the Middle Loup River. Russell County, Kansas, is now classified as *mining* dependent. This is also not a surprising change with the increase in oil and gas exploration in

Kansas between 2010 and 2014 (Kansas Geological Survey 2015), and Russell County's economy is now significantly extractive. The selected counties' population characteristics, urban influence, presence of Frontier and Remote (FAR) Level 4 areas, and ERS Typology Code classifications are summarized in Tables 4.1-4.3.

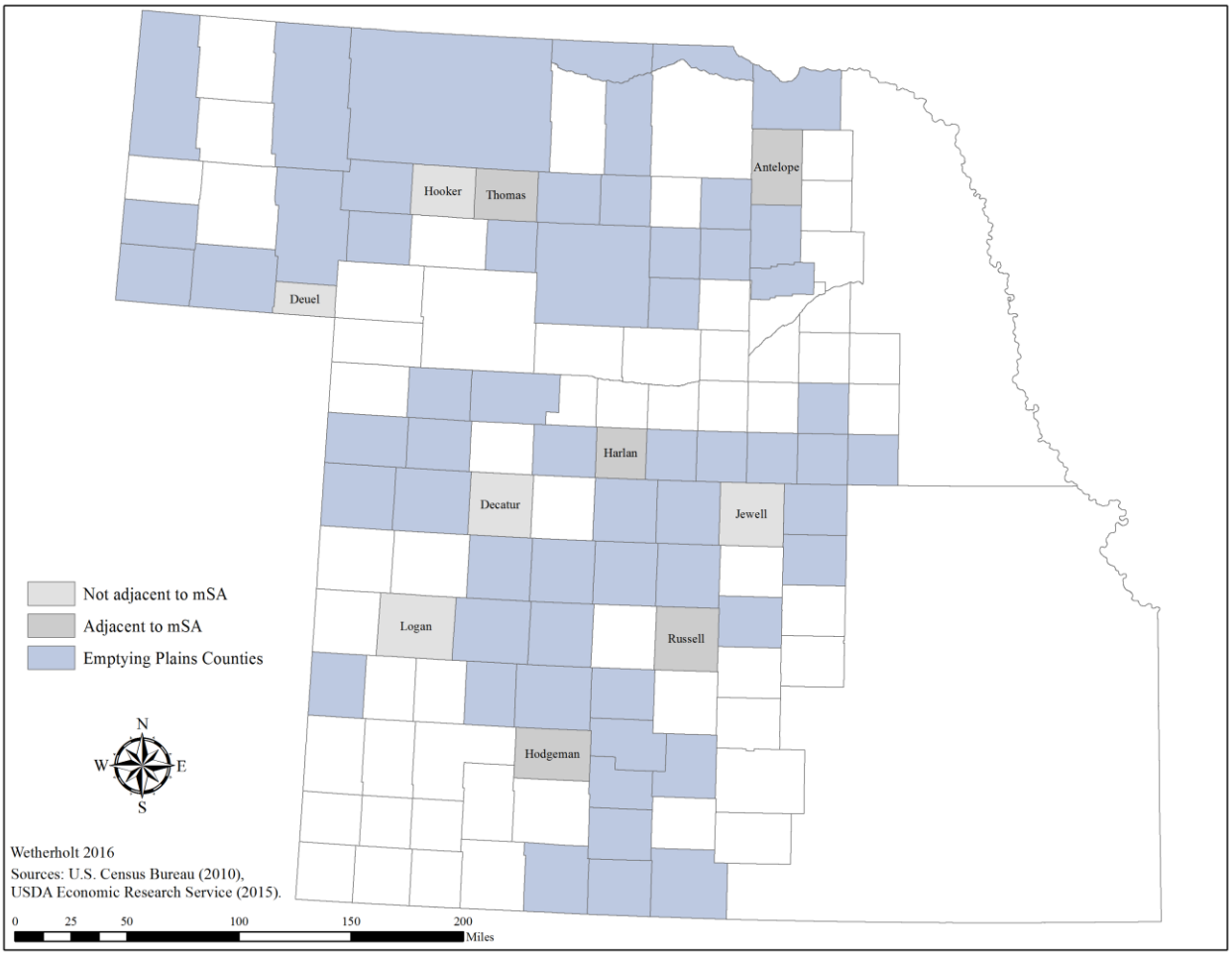

Figure 4.2 Randomly selected counties for mailed questionnaire.

Table 4.1 Summary table of randomly selected counties' population characteristics (Minnesota Population Center 2011, U.S. Census Bureau 2010).

County	State	1960 Population	2010 Population	Population Change	Percent of Change
Decatur	KS	5,778	2,961	-2817	-48.8%
Hodgeman	KS	3,115	1,916	-1199	-38.5%
Jewell	KS	7,217	3,077	-4140	-57.4%
Logan	KS	4,036	2,756	-1280	-31.7%
Russell	KS	11,348	6,970	-4378	-38.6%
Antelope	NE	10,176	6,685	-3491	-34.3%
Deuel	NE	3,125	1,941	-1184	-37.9%
Harlan	NE	5,081	3,423	-1658	-32.6%
Hooker	NE	1,130	736	-394	-34.9%
Thomas	NE	1,078	647	-431	-40.0%

Table 4.2 Summary table of study counties' FAR 4 and Urban Influence Code characteristics (USDA ERS 2013, USDA ERS 2015b).

County	State	Contains FAR 4	UIC Code	Urban Influence Code Description
Decatur	KS	x	12	Noncore not adjacent to a metro/micro area and does not contain a town of at least 2,500 residents
Hodgeman	KS	x	10	Noncore adjacent to micro area and does not contain a town of at least 2,500 residents
Jewell	KS	x	12	Noncore not adjacent to a metro/micro area and does not contain a town of at least 2,500 residents
Logan	KS	x	12	Noncore not adjacent to a metro/micro area and does not contain a town of at least 2,500 residents
Russell	KS	x	9	Noncore adjacent to micro area and contains a town of 2,500-19,999 residents
Antelope	NE	x	10	Noncore adjacent to micro area and does not contain a town of at least 2,500 residents
Deuel	NE	x	12	Noncore not adjacent to a metro/micro area and does not contain a town of at least 2,500 residents
Harlan	NE	x	10	Noncore adjacent to micro area and does not contain a town of at least 2,500 residents
Hooker	NE	x	12	Noncore not adjacent to a metro/micro area and does not contain a town of at least 2,500 residents
Thomas	NE	x	10	Noncore adjacent to micro area and does not contain a town of at least 2,500 residents

Table 4.3 Summary table of study counties' 2015 USDA ERS Typology Code characteristics (USDA ERS 2015a).

County	State	Farming	Mining	Recreation	Population Loss	Retirement Destination
Decatur	KS	x			x	
Hodgeman	KS	x			x	
Jewell	KS	x			x	
Logan	KS	x			x	
Russell	KS		x		x	
Antelope	NE	x			x	
Deuel	NE	x			x	
Harlan	NE	x		x	x	
Hooker	NE			x	x	x
Thomas	NE	x			x	

A Modified Dillman approach

The survey follows a modification of Dillman, Smyth, and Christian's (2009) system of five "compatible" contacts, omitting the fifth and final contact attempt (a third questionnaire mailed in a manner different from all other contacts). These consist of: 1) a mailed color-printed questionnaire with a stamped return envelope and informational letter (Appendix B) outlining the purpose of the study, 2) a reminder postcard (Appendix C), 3) a second copy of the questionnaire to nonrespondents with a modified letter (Appendix D) and return envelope, and 4) a second reminder postcard. The initial mailing of questionnaires was on 30 January 2015. Reminder postcards were mailed 17 February 2015. A second copy of the questionnaire (in black and white) including a stamped return envelope was mailed to all nonrespondents 12 March 2015. Finally, a second reminder postcard was mailed 25 March 2015. Data collection for the mailed questionnaire was complete by 01 May 2015.

Handling and Processing Returned Questionnaires

In order to employ the Dillman method of contacting respondents effectively, I needed to know who had already responded so follow-up mailings were not sent indiscriminately. This reduces cost and prevents excess contact with respondents, which could be viewed unfavorably. A dilemma does emerge in maintaining anonymity while knowing who has responded. To remedy this, each randomly-selected resident was assigned a number from 1 to 1000. Each initial mailed questionnaire had the corresponding reference number written on the back page of the mailed questionnaire in the lower left corner. As questionnaires were returned, the number was recorded in an Excel spreadsheet and then removed from the questionnaire. This allowed for identifying addresses of those who had returned their questionnaires while immediately anonymizing returns before processing. The second set of questionnaires mailed to nonrespondents used a slightly different technique: corresponding reference numbers were printed in 4-point font on the back of the self-addressed stamped envelopes on the bottom left corner. When this second wave of mailed questionnaires came back, each number was recorded before the envelope was opened and separated from the returned questionnaire. Both techniques were effective, but the second approach took less time. In each case, a few respondents had already removed or blacked-out codes, so a very few actual respondents also received reminders.

Processing questionnaire returns was straightforward. Each set of questionnaire responses was coded and entered in a Microsoft *Excel* spreadsheet on a separate row. Within the row, each cell corresponded to a closed question. The majority of closed-ended questions that were not demographic in scope followed a five-point Likert-type scale. Open-ended responses were recorded in a similar fashion in the same *Excel* spreadsheet, but on a separate tab. Each row contained all the open-ended responses transcribed from a single questionnaire, with each

question response in a separate cell. The numbered row of closed responses corresponded with the same numbered row of transcribed open responses. The number of the row did not correspond to the respondent's initial assigned number for collecting returns and cannot be attributed to an individual. Each row of responses was assigned an identification number from 1 to 404, and these ID numbers are used to cite particular answers from respondents. For example:

> I've lived and worked in metropolitan areas (Phoenix and Las Vegas). Traveled the world with the military. I'd like to be able to travel more now, but small town living is pretty hard to beat. While I do miss some of the big city amenities, this lifestyle and sense of community fits me well. (Respondent 204, Q43)

Analyzing Quantitative Questionnaire Results

When data are quantitative (or may be made quantitative), statistics are crucial for a comprehensive analysis and interpretation of results (McGrew and Munroe 2009). Responses from the completed sample were analyzed in *Minitab 17* statistical software (2010). Descriptive statistics, such as central tendency and dispersion of responses, were obtained, as were inferential statistics. Measures of central tendency (e.g., mean, median) represent the typical value of a frequency distribution, while measures of dispersion (e.g., quartiles, standard deviation) communicate the degree of variability in a dataset (McGrew and Munroe 2009).

Inferential statistics like Spearman's rank correlation coefficient (r_s) and contingency analysis explore relationships among the responses. The primary objective of Spearman's rank correlation analysis is to determine if there is an association between two variables at the ordinal scale (McGrew and Munroe 2009). Contingency analysis tests the actual frequency distribution against an expected frequency to examine the relationship between two variables (McGrew and Munroe 2009). The goodness-of-fit between the actual distribution and the expected distribution

in the cross-tabulation is measured with the chi-square statistic (χ^2) to determine if a significantly large difference exists between the two (McGrew and Munroe 2009).

Finally, the reliability of the survey instrument needs to be measured to test whether statements about differences among responses can be made with any degree of certainty (Cronbach 1951). Cronbach's alpha (α) was used to test the reliability of the mailed questionnaire; it is a measure of the internal consistency of an instrument and "describes the extent to which all the items in a test measure the same concept or construct" (Tavakol and Dennick 2011, 53). It is one of the most important statistics regarding the construction of a survey instrument and is utilized in many varied disciplines (Cortina 1993). Cronbach's alpha is a theoretical measurement of the sum of a group of variables from 0 to 1, where $\alpha = 1$ suggests that the responses that make up a particular variable are all identical, and $\alpha = 0$ suggests that all the responses are different (Bland and Altman 1997). An α value of 0.7 is considered satisfactory outside of clinical applications (where much higher values of α are desired) (Peterson 1994; Bland and Altman 1997).

Analyzing Qualitative Questionnaire Results

Questionnaire responses were imported into computer-assisted qualitative data analysis software (CAQDAS) to aid in the coding process. Coding is critical to reduce a large amount of data into meaningful themes that can be analyzed (Cope 2010). However, it is not the CAQDAS that does the heavy lifting when it comes to good qualitative data analysis (Corbin and Strauss 2015): it only helps sort, store, code, and query data. The software "make[s] many of the chores…a lot easier, leaving the researcher freer to do the thinking necessary to do 'quality' analysis" (Corbin and Strauss 2015, 203). The *Excel* spreadsheet of questionnaire responses was

opened in QSR International's (2012) *NVivo 10* as a new project for the purpose of coding open-ended responses.

Employing Focus Groups

The Role of Focus Groups

Focus groups enable geographers to uncover ideas, opinions, and beliefs that might not be elucidated through a traditional interview or questionnaire; they "encourage a setting whereby research participants can provide their own interpretations of their attitudes and behavior in the context of a group" (Skop 2006, 117). Further, the group setting can confront and disarm certain prejudices and meanings brought to the project by the researcher; "thus, focus groups can serve to transform the understandings of both the researchers and the participants in new and compelling ways" (Skop 2006, 118). Discussion among focus group members provides a means for participants to narrate their own lives in the community while also enabling them to reflect on the collective experience of the group; many participants report that they learn something valuable and new about themselves, their community, or both (Goss and Leinbach 1996). "The process is dialogic, involving a constant communication between self and others, with a goal not to produce or extract a single meaning – the researcher's understanding of the subject – but to share a linguistic and social experience from which multiple meanings can be made" (Goss and Leinbach 1996, 118).

Focus Group Locations

Three focus groups in the county seats of three of the ten randomly-selected counties from the mailed questionnaire were conducted: one in Mankato, Kansas (Jewell County), another in Mullen, Nebraska (Hooker County), and a final focus group in Jetmore, Kansas (Hodgeman

County). These three counties provided good coverage of the entire Emptying Plains study area from north to south and incorporated the county with the highest amount of population loss since 1960 in the study area (Jewell), an emptying county adjacent to two micropolitan statistical areas (Hodgeman), and a Nebraska Sandhills county (Hooker) that elicited a strong regional identity in the open-ended portion of the mailed questionnaire compared to other counties. Selection of focus group locations was based on: 1) targeting the Emptying Plains counties selected for the survey; 2) including both micropolitan statistical area adjacency and nonadjacency; and 3) selecting a county with questionnaire responses that seemed to differ from other counties. Specifically for the last consideration, questionnaire respondents from Hooker County in Nebraska (as well their neighbors in mSA-adjacent Thomas County) indicated a Sandhills regional identity when referring to their surroundings in questionnaire open-ended responses. To the contrary, respondents of other counties located in other named regions like the High Plains or Smoky Hills (or just the Great Plains for that matter) did not provide similar responses of regional identity; they simply referred to their immediate community or county.

Each focus group took about two hours to complete and consisted of four to six participants. The focus groups constituted the second half of this sequential mixed-method study, aiding in triangulation to help cross-check the results of the mailed questionnaire and allowing questionnaire results to be contextualized and explored further. The goal of including focus groups in this project was to verify and add depth to the statistical information gleaned from questionnaire returns. Winchester and Rofe (2010, 23) asserted that such a qualitative approach "attempt[s] to gather, verify, interpret, and understand the general principles and structures that quantitative methods measure and record."

Focus Group Questions

In the Emptying Plains, the problem being addressed is rural population loss. The information sought is the elements of place in depopulating counties that contribute to a resident remaining there. Specifically, the purpose of the focus groups in this research was to identify the common threads of place attachment in this depopulating region in order to develop a richer understanding of the regional aspects of place encouraging rootedness.

Stewart, Shamdasani, and Rook (2007, 53) stressed the importance of avoiding a very general research agenda when conducting focus groups: "A very general research question will produce very general and not very useful results." A well-defined research question incorporates the topic of the research, its relevant population, and the specific issues that are of interest. For this study's focus group research agenda, the topic of identifying aspects of place encouraging rootedness in a depopulating region is central, the work is targeted toward current residents from the study counties. The specific questions for the focus group participants were:

1. What are some of your favorite things about living here?
2. What sort of things do you think would make living here even better?
3. If someone asked you why you live where you do, what sort of things would you tell them?
4. As you are likely aware, people have been moving out of this county for the past few decades; what do you think is responsible for this trend?
5. If there was one thing you had to say that you don't like about this area, what would it be?
6. In your opinion, what are some of the biggest challenges this area faces?
7. If you had the option to move away from here, why would/wouldn't you?
8. Do you think there are any things that local civic organizations, government agencies, or policymakers could do to encourage more people to move here?

Pilot Study

A pilot or test run of the focus group was conducted on 12 October 2015 in Kansas State University's Department of Geography with seven graduate and undergraduate students in the department's seminar room. The pilot was performed to estimate the time needed to go through scripted questions, determine if any questions were awkwardly worded, develop a method for taking notes during the conversation, and ensure the audio recording equipment was performing properly. The pilot focus group took about two hours to complete, which was the target timeframe. Questions were not viewed as confusing or worded improperly, and all participants understood what was being asked. The digital voice recorder and microphone performed properly and there was no issue transferring the audio file to a secure server in MP3 format.

The audio of the focus group pilot did reinforce my need to assume the role of the moderator and minimize personal contributions to the discussion. There were a few times in which I should have allowed the conversation to progress on its own, and instead chose to remark on how a participant's response related to the literature, or interjected too much of my personal experience regarding a question. This broke the flow of conversation and hindered the social construction of knowledge that is a main strength of using focus groups. I made a sincere effort during the actual focus groups to only ask/restate research questions, provide reinforcing comments (especially for quieter participants), and ask clarifying questions where appropriate.

Focus Group Procedures

Because of the small number of participants in a focus group, the results do not lend themselves to generalizability. Since generalizability is not normally a goal, the use of convenience sampling when recruiting participants is common for focus groups (Stewart, Shamdasani, and Rook 2007). In addition to convenience sampling, some snowball sampling

occurred as well. The sampling strategy for the focus groups of this study also proceeded along the lines of theoretical sampling: "the process of data collection whereby the researcher simultaneously collects, codes, and analyses the data in order to decide what data to collect next" Coyne (1997, 625).

Bennett (2002) suggested a number of potential sources for recruitment of focus group participants: local activists, key insiders, local media postings, and even posters in community centers. For this study, key insiders included Kansas State University Extension and University of Nebraska Extension personnel, members of county historical societies, and county economic development committee members. Insiders were contacted through phone calls and email to communicate the scope of the research and seek assistance in identifying participants. These insiders reached out to their respective communities in search of interested residents and helped put together groups of 5-7 participants while remaining in contact with me as venues were reserved with tentative dates.

I visited all three counties in September-October 2015 to post 11"x17" color posters advertising the need for focus group volunteers, with contact information for interested parties wishing to participate (appendices J-L). These posters were placed with permission in local post offices, banks, libraries, city offices, supermarkets, laundromats, retail establishments, community centers, and farm co-ops. I also took the opportunity to meet with some insiders in person while in the counties. Posters in pdf format were provided to insiders willing to advertise the focus group opportunity through social media outlets.

Prospective focus group participants with interest who responded to me or to an insider were quickly screened for eligibility. Qualifying questions verified that a potential participant was over the age of 18, a resident of the county, comfortable discussing their experiences in a

group setting, and could meet for "a couple of hours" on the evening of a particular date. Locations for the focus groups were set in local public places such as community centers or a café. Once groups had been formed, scheduled, and gathered, a consent form was provided to each participant at the beginning of the meeting (Appendix K). The contents were reviewed and any questions that arose were answered. Light refreshments like coffee and pie were made available to all participants as well. After all forms had been signed and returned to the researcher, audio recording began and the focus group commenced. Conducting the focus groups required help with set up, taking notes, observing, and recording non-verbal cues (e.g., nodding, pausing to contemplate before responding). Fellow doctoral student Avantika Ramekar served in these roles at all focus group meetings. The focus group proceeded according to a scripted set of questions along with some additional probes or phrases to help clarify responses, keep the group on track if the conversation meandered too much, or simply to move the conversation along to the next question. Participants were seated around a table in unassigned chairs, and a microphone was located in the center of the table. Questions began at one end of the table by posing the question to one participant initially, and the group worked around the table in one general direction before going back in the other direction (i.e. one question was answered in a counterclockwise fashion and the subsequent question was discussed clockwise), however participants were encouraged to chime in as they liked or add on to anything another had said. This allowed for some structure in the way questions were addressed, it aided in the process of transcription by reducing confusion between who was speaking, but at the same time it did not inhibit the social construction of material discussed.

Audio was captured with an Olympus VN-3200PC Digital Voice Recorder paired with a Sony ECM-DS70P T-Microphone. Audio files of the completed focus groups were exported to a

secure storage device in MP3 format in separate files. Each audio file was manually transcribed into a separate text file. Avantika Ramekar also aided in transcription by completing the majority of Jewell County. All transcriptions were cleaned to omit "uhs" and "ums," as well as filler phrases like "you know" unless they added context or meaning. These text files were then imported into *NVivo 10* to code and analyze the discussions.

Summary

A sequential mixed method approach was chosen for this research in order to gain a better perspective on the aspects of place that contribute to an individual's rootedness in the most rural and depopulating portions of the central Great Plains. This type of mixed method approach is characterized by the collection and analysis of quantitative data in the initial phase, and the collection and analysis of qualitative data in the second phase (Creswell 2009). Methods included the use of a mailed questionnaire followed by focus groups. A sequential explanatory strategy attempts to elaborate or expand on the findings of the first method with a follow-up in a process that yields data that are interconnected.

The preliminary questionnaire was member-checked by Jewell County residents in November 2014, which led to some modifications in the final form. The questionnaire used Likert scale closed questions as well as open-ended questions to provide both quantitative and qualitative data. Formal mailing of the questionnaire commenced in January 2015 and was completed in April 2015. Questionnaire administration followed the Dillman method, omitting the final contact attempt. Ten counties from the Emptying Plains were randomly selected: five in Kansas (Decatur, Hodgeman, Jewell, Logan, and Russel), and five in Nebraska (Antelope, Deuel, Harlan, Hooker, and Thomas). One thousand questionnaires were distributed (100 per county).

In October and November 2015, three focus groups were conducted in the county seats of three of the counties: Jewell County (Mankato, Kansas) on October 13, Hooker County (Mullen, Nebraska) on November 6, and Hodgeman County (Jetmore, Kansas) on November 10. Each county for focus groups was selected purposefully. Jewell County has lost a greater percentage of its population in the last 50 years than any other county in the study area (-57.4%). Hooker County had a particularly pronounced regional identity in questionnaire responses (respondents referring to their region – Nebraska's Sandhills – as opposed to their county or community). Hodgeman County is adjacent to two micropolitan statistical areas unlike Jewell and Hooker counties, neither of which are adjacent to a metropolitan or micropolitan county. Each focus group was recruited with the help of key insiders using a combination of convenience and snowball sampling. There was a total of 15 focus group participants: four in Jewell County, six in Hooker County, and five in Hodgeman County. This sequential mixed method approach provided rich qualitative data to compliment quantitative results and facilitated a triangulation of findings for a more holistic view into the aspects of place that encourage people to remain when so many others have moved away.

Chapter 5 - Results

A sequential explanatory mixed method design of a mailed questionnaire proceeded by three focus groups was employed in this research to have a better understanding of the varied elements of place that encourage rootedness in the very rural central Great Plains counties of Kansas and Nebraska. Descriptive statistics of the closed-ended responses of the mailed questionnaire are presented first. Correlation analysis and cross tabulation explore relationships within the closed-ended questionnaire responses. Open-ended responses coded with CAQDAS are summarized, and examples are employed to provide depth to the closed-ended material. Finally, the results of the focus groups provide rich qualitative data that compliment quantitative results and offer a more holistic view of the aspects of place that encourage a resident to remain in a depopulating region.

Results of the Mailed Questionnaire

Of the 1,000 questionnaires mailed to randomly selected residents of the Emptying Plains counties, a total of 404 were completed and returned between February and May 2015 (Table 5.1). In addition to the 404 completed returns, 87 unusable returns were also received. These included unopened mailings that were undeliverable and marked "return to sender," questionnaires returned that indicated the addressee was not interested in participating, and questionnaires completed by respondents not located in one of the selected counties (Table 5.2). This yields a survey response rate of 40.4 percent if all 1,000 mailings are considered, or 43.7 percent if the 76 unusable returns (not including the 11 from uninterested addressees that *could* have completed the questionnaire) are discarded from the total number of possible returns.

Table 5.1 Questionnaire responses by county.

Completed Questionnaires	
	Number
Kansas counties	
Decatur	44
Hodgeman	46
Jewell	51
Logan	38
Russell	38
Nebraska counties	
Antelope	34
Deuel	36
Harlan	39
Hooker	38
Thomas	40
Total completed questionnaires	**404**

Table 5.2 Summary of unusable questionnaire returns.

Types of unusable returned questionnaires	
Marked "return to sender"	43
Respondent not from a selected county	16
Deceased addressee	13
Addressee not interested in survey	11
Addressee moved away	3
Unfinished questionnaire	1
Total unusable returns	**87**

Demographically, the mean age of respondents was 61 years old. The age is relatively high. However, the nonmetropolitan counties of the Central Great Plains have some of the highest average ages in the country, and the observations are normally distributed. There were thirty more respondents from Kansas (217) than Nebraska (187). Because the same number of surveys (100) were distributed to each county, rather than distributing surveys proportionate to county populations, this means that a somewhat higher response rate of 43.4 percent was achieved with Kansas responses as opposed to 37.4 percent from Nebraska. Twenty-nine more

females (214) responded compared to men (185). This is not unexpected; seven of the ten counties surveyed have a sex ratio with more women than men. However, the proportion of women responding exceeds the ten-county average and the ten-county low, at a ratio of only 86.4 men to 100 women: the sex ratio of the ten selected counties has a mean of 98.9 men for every 100 women, and is as low as 88.7 (Hooker County, Nebraska) (U.S. Census Bureau, 2010). A greater tendency of women to respond to this survey is therefore apparent, and the results *may* be slightly more reflective of the views of women.

Five counties selected for the study were adjacent to micropolitan statistical areas, and five counties were not adjacent. Of the 404 total respondents, eleven more respondents were from counties that were not adjacent to micropolitan statistical areas (51.4%), indicating relatively consistent response rates between the two types of county. More than two out of every three respondents were married (70.1%), and nine out of ten respondents owned their homes (90.2%). From the 398 respondents that indicated their ethnicity, 390 (97.9%) indicated they are white. The most commonly reported level of annual total household income was $20,000 to $39,999 (28.7%).

Closed-Ended Responses

Most of the closed-ended questions were structured with a Likert-style formatting that provided respondents five potential responses. These possible answers were listed from high to low, or from complete agreement to complete disagreement, and responses were coded 5, 4, 3, 2, and 1 respectively. For example, question 1 asked, "How would you evaluate the visual appearance of your community?" The possible answers were *very attractive* (5), *somewhat attractive* (4), *average appearance* (3), *not very attractive* (2), and *not attractive at all* (1). Coding responses this way enabled me to calculate measures of central tendency and measures of

dispersion. For instance, Question 1's mean value is 3.47, indicating that, on average, respondents consider the visual appearance of their community to be of *average* or *somewhat attractive* appearance. A summary of the measures of central tendency and dispersion for most closed-ended questions is located in Table 5.3. (Individual tallies for each question with accompanying histograms is located in the appendices.) Cronbach's alpha for the 16 closed-ended Likert-scale questions was 0.82, suggesting the survey instrument is reliable.

Table 5.3 Descriptive statistics of closed-ended survey questions.

Variable	N	Mean	StDev	Min	Median	Max	Mode	Mode N	Skew	Kurtosis
Aesthetics	401	3.47	0.92	1	3	5	3	159	-0.07	-0.4
Nearby Surroundings	403	3.71	0.77	1	4	5	4	189	-0.21	0.26
Outdoor Amenities	402	4.02	0.87	1	4	5	4	196	-0.97	1.2
Ease of Purchases	399	2.91	1.17	1	3	5	4	133	-0.04	-1.14
Miles to Groceries	396	19.00	20.92	0.2	15	110	1	53	1.51	2.21
Feel Safe	402	4.63	0.62	2	5	5	5	278	-1.91	4.2
Environment Important	397	4.57	0.70	1	5	5	5	265	-1.95	4.87
Time Spent Socializing	402	2.92	1.20	1	3	5	2	158	0.44	-0.89
Helpful Community	400	4.39	0.79	1	5	5	5	211	-1.59	3.26
Family Roots (years)	302	93.31	36.94	2	100	165	130	40	-0.61	-0.5
Feel Good Here	403	4.04	0.94	1	4	5	4	164	-0.94	0.56
Rooted Level (1-10)	399	7.59	2.46	1	8	10	10	110	-1.06	0.3
I am Stuck Here	401	2.38	1.16	1	2	5	2	119	0.46	-0.69
# of things to do in Town	404	3.12	0.95	1	3	5	3	177	0.2	-0.31
Community involvement	401	3.63	1.05	1	4	5	4	197	-0.92	0.51
Insider or Outsider	397	3.65	1.12	1	4	5	5	114	-0.37	-0.84
Community Spirit	401	3.68	0.93	1	4	5	4	184	-0.54	-0.09
Belonging	403	3.65	1.02	1	4	5	4	150	-0.53	-0.07
Livelihood	399	3.76	1.18	1	4	5	4	136	-0.79	-0.25
Number of Years Here	395	36.96	23.09	1	37	96	50	15	0.21	-1
Miles Still Nearby	385	56.19	43.08	5	50	300	30	56	2.33	8.49
Age	394	61.20	15.50	20	62	96	60	17	-0.38	-0.36

Physical Surroundings and Distance

Question 37 asked respondents "What is the maximum number of miles you could travel away from here but would still consider 'nearby'?" This was intended to provide a better idea of a respondent's concept of what they considered close when asked questions involving their non-immediate surroundings. The mean value was 56.2 miles, and the median was 50 miles. The mode was 30 miles (56 respondents). More than half of the respondents considered "nearby" to be 50 miles or less (59.2%).

When respondents evaluated their community's nearby surroundings, most responded that they are *good*. Outdoor amenities (such as lakes, parks, and scenery) were most often described as *somewhat desirable*. The responses to the question evaluating outdoor amenities has a strong negative skew of -0.97, however, indicating a non-normal distribution of responses with more that fall to the right of the mean. In other words, more respondents indicated that their outdoor amenities were either *somewhat desirable* or *very desirable* than those who respondents who see their nearby amenities as *neither desirable or undesirable*, *somewhat undesirable*, or *very undesirable*. When asked about how important the local natural environment is, the majority responded that the local natural environment is *very important* (mean = 4.57). The responses to this question also display a strong negative skew, even more than the responses about outdoor amenities. Strongly skewed sets of responses to questions such as this were not employed for cross tabulation.

I asked respondents how easy or difficult it is to purchase things they need in their community. The mean value of 2.91 suggests that, for some, acquiring needed goods is somewhat difficult. Of the closed-ended Likert scale type questions, this set of responses had one of the lowest averages. The indication of relative difficulty in obtaining needed items is

reinforced by the next question, which asked respondents for the minimum number of miles they had to travel one-way to purchase the majority of their grocery items. While most respondents (53) reported they only have to travel one mile to acquire the items they need, the mean one-way distance was 19 miles and the median was 15 miles. The furthest distance reported was 110 miles.

Social Conditions

Overwhelmingly, people feel safe in their communities. This is not to say everyone perceives their community as safe, but of the 402 respondents who answered this question, only 17 (4.2%) indicated that they feel *neither safe or unsafe*, or *somewhat unsafe*. More than two out of every three respondents (69.2%) reported that they feel *very safe* in their communities. The frequency of these responses is reflected in their strong negative skew. Similarly, more than half of the respondents (52.8%) perceived those in the community around them as *very helpful*. Only 13 (3.3%) responded that people in their community were unhelpful. Respondents also spend time with friends and family. Most socialize at least two days per week, and only 7.2 percent indicated that they do not spend any days in a typical week socializing with friends and/or family.

With respect to family, 40 percent of respondents (164; 40.6%) have roots in the area where they now live that go back more than a century. It is possible that even more have roots in the larger "Emptying Plains" region defined for this study. The mean number of years reported for when a member of a respondent's family began living in their area was 93 years. The median value was 100 years. These values are not exact: when a respondent provided a decadal response like "the 1870s," the middle year of the decade was selected. In addition, an ambiguous response like "the early 1900s," which can be interpreted to mean the first decade of

the 20th Century, or sometime before mid-century, was recorded as 1915 in an attempt to select a year *early enough* without assuming it was right around 1900. Although quantitative estimates based on responses are inaccurate, responses overall indicate that historical roots do indeed go deep for a large number of residents.

Many respondents perceive their community's spirit to be strong as well; less than twelve percent of respondents (48 out of 401) disagreed with the statement: community spirit is strong here, while 255 (63.6%) *agreed* or *agreed completely*. This complements responses to the question "How involved are you with your town?" Two out of three respondents (66.1%) indicated they are at least *somewhat involved* with their community. In terms of how much there is "to do" in respondent's communities and nearby, more said there are *some things to do* (43.8%), but for the twenty-two percent that indicated there were *many things to do* (89), another twenty-two percent said there were *not many things to do* (91). Nearly one in three respondents (129 or 32.3%) said that their community had been *very important* in earning their livelihood.

When respondents were asked "How much of an insider or outsider do you feel like here?" more than half (56.7%) said they feel like an *insider somewhat* or a *complete insider*. One in four (25.9%) respondents felt neither like insiders or outsiders. Sixty-nine respondents (17.4%) felt at least like an *outsider somewhat*. Another perceptual question asked respondents the degree to which they agreed with the statement: this is where I belong. Most respondents (37.2%) *agreed*, and another 21.6% *completely agreed*. While more than half of the respondents felt like they belong, more than one in ten (11.7%) do not feel like they belong.

Feelings of attachment

According to the responses given, the majority of residents feel good about living where they do. Of 403 respondents providing a response, 310 (76.9%) chose *agree* or *completely agree*

to the statement: living here makes me feel good. One research question addressed whether residents are strongly attached to place, or stuck in it. I asked respondents to what degree they agreed or disagreed with the statement "I am stuck here." Almost 58 percent (229 of 401 respondents) did not agree with the statement. Seventy-four respondents, or more than one in six (18.5%), indicated that they do feel stuck in place. This suggests that a minority of residents do perceive themselves as "stuck." Correlation analysis and cross tabulation are used to explore the relationship between those that indicated they felt stuck and other variables like belonging, feeling like an insider or outsider, and how the visual appearance of their nearby surroundings was perceived.

For the core concern with place attachment, the most central question in the questionnaire was Question 17:

> On a scale of 1 to 10, how rooted/attached do you feel to where you live? **1** means you feel absolutely no attachment and would rather live almost anywhere else. **10** means you feel completely rooted and would never consider living elsewhere.

This enabled me to quantify something very qualitative in scope. The mean reported level of attachment was 7.6 out of 10. The mode was a 10 with 110 respondents (27.6%) reporting the highest level of attachment. The distribution has a negative skew, with more observations to the right of – higher than – the mean (Figure 5.1).

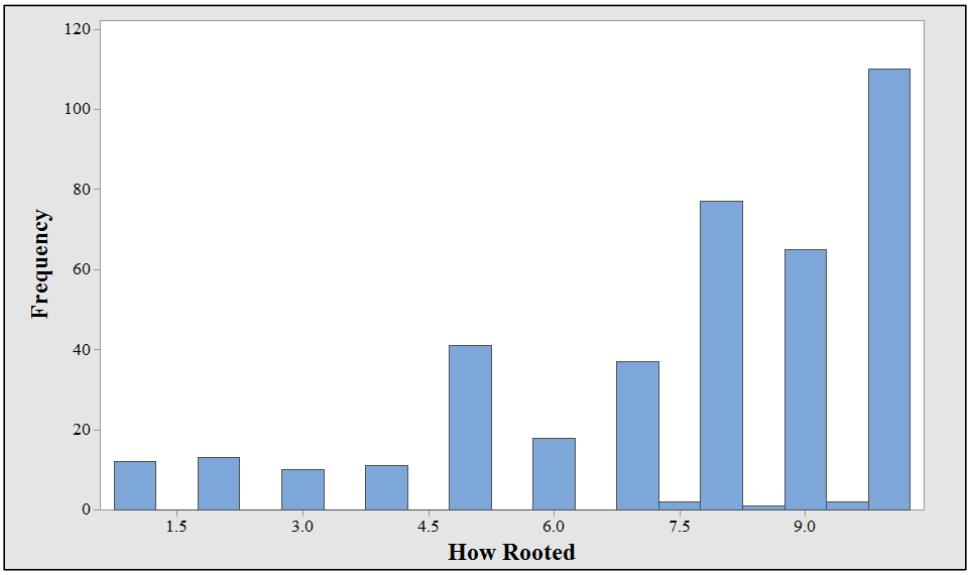

Figure 5.1 Response distribution, self-assessed rootedness (question 17, How rooted/attached do you feel to where you live?).

Of the 399 respondents who answered this question, 255 (63.9%) reported a level of attachment that was at least an 8 out of 10. I condensed all of these responses into a reduced number of ordinal categories to create a new column of values that were structured like the other Likert-scale questions. Respondents who reported 1 to 2 as their attachment level were assigned a 1 for *very low attachment*, those who reported a level of 3 to 4 were assigned a 2 for *low attachment*, responses of 5 to 6 were assigned a 3 for *moderate attachment*, 7 to 8 were assigned to group 4 for *high attachment*, and anything higher than an 8 was assigned a 5 for *very high attachment* (Figure 5.2). This creation of a new ordinal level of rootedness enabled me to explore the relationship of attachment levels with other ordinal categories such as 'feeling like an insider,' 'sense of belonging,' and 'feeling stuck in place'.

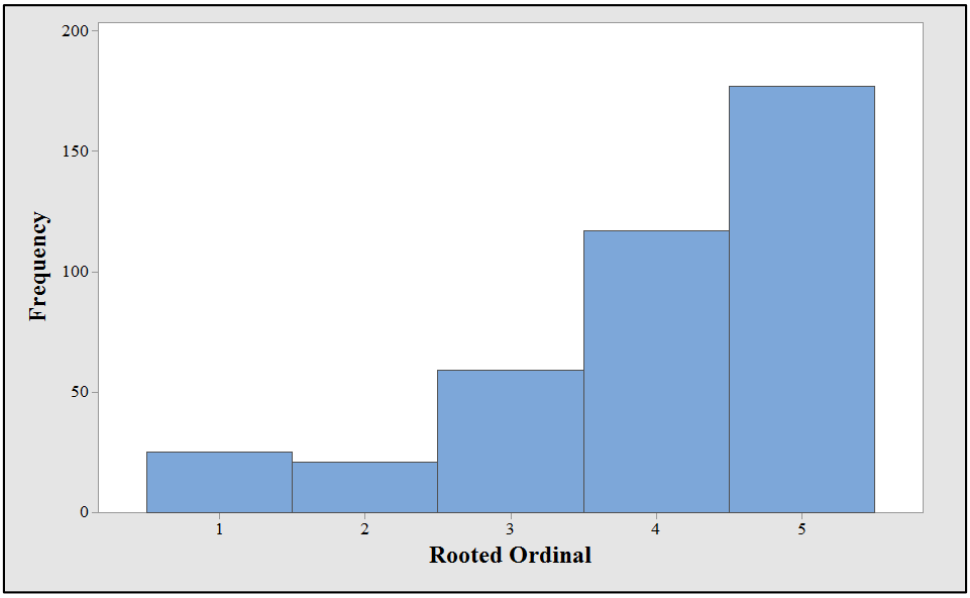

Figure 5.2 Reduced ordinal classes for levels of rootedness.

Correlations of Closed-Ended Responses

Spearman's rank correlation coefficient (r_s) was calculated between variables to test the strength of association for closed-ended ordinal questions. A few questions that had ratio levels of measurement were converted to ordinal ranks so they could be incorporated (e.g., number of miles one-way to procure groceries, historical roots in years, and age). The associations most important for this study are related to very high reported levels of rootedness. The main research question asks what elements of place encourage rootedness in the central Great Plains when many are leaving. Table 5.4 displays the r_s values for associations between the ordinal level of rootedness and other ordinal categories with 95% confidence or better. The higher the critical value suggests the stronger the relationship between variables. Spearman's critical values for its nondirectional alphas of 0.05, 0.01, and 0.001 are 0.197, 0.257, and 0.326 respectively (Ramsey 1989). The entire correlation matrix is contained in the appendices.

Table 5.4 Spearman correlation coefficients between self-assessed levels of rootedness and other closed-ended ordinal variables (≥ 95 percent level of confidence).

Variable	Spearman's rho
Belonging	0.708
Feel Good Here	0.613
Insider or Outsider	0.568
Years here	0.400
Community Spirit	0.378
Family Roots Ordinal	0.356
Involved	0.342
How much to do?	0.323
Nearby Surroundings	0.299
Livelihood	0.291
Aesthetics	0.272
Ease of Purchases	0.227
I am Stuck Here	-0.315

The strongest associations to rootedness appear to be emotional or perceptual: strong feelings of belonging, not feeling stuck, feeling good about living where you do, and feeling like an insider. There are overlaps among these categories that are not easy to delineate. For instance, being an insider has a social connotation, as does being involved in the community, the number of things to do, and strong community spirit, but they are perceptual as well. In addition, natural elements of place, such as outdoor amenities, are inherently a part of the landscape and contribute to place attachment, but it is their subjective favorable evaluations by respondents that are associated with higher levels of rootedness. Economic aspects include the community's importance to a respondent earning a livelihood, and the ease of obtaining needed goods within the community. The number of things to do, which can include shopping and dining options, has economic connotations as well. Finally, historical family ties to place, as well as the number of years a respondent has lived in the area, show an association with being rooted.

The strongest correlation among all possible combinations of variables in the matrix was between the ordinal level of rootedness and the statement "this is where I belong" ($r_s = 0.708$).

The strong positive relationship suggests that high levels of rootedness are associated with agreement with the statement about belonging. Conversely, there is a very strong negative correlation between feeling stuck and higher levels of rootedness (r_s = -0.315) (Table 5.5). This suggests the stronger one agrees in the affirmative that they are stuck in the Emptying Plains, the more likely they are to report a lower level of attachment. Descriptive statistics for the closed-ended responses revealed that not everyone is rooted, and 18.5 percent responded that they feel stuck. These relationships are explored further in the next section.

Table 5.5 Spearman correlation coefficients between 'feeling stuck in place' and other closed-ended ordinal variables (≥ 95 percent level of confidence).

Variable	Spearman's rho
Feel Good Here	-0.437
Belonging	-0.352
Level of Rootedness	-0.315
Insider or Outsider	-0.302
Community Spirit	-0.286
Outdoor Amenities	-0.242
How much to do?	-0.24
Involved	-0.237
Nearby Surroundings	-0.222

Every statistically significant correlation of attachment-related variables with feeling stuck in place was negative. The strongest negative correlation was with feeling good about living in their community. Agreement with the statement "I am stuck here" had a strong negative association with answering "Living here makes me feel good" in the affirmative (r_s = -0.437). In other words, respondents indicating that they feel stuck in place had a very strong relationship with respondents who disagreed with the statement about feeling good related to where they live ($\alpha = 0.001$). Respondents who indicated they feel stuck were also strongly

associated with indicating they didn't belong. 'Stuck' responses were negatively related to feelings of rootedness, as well as with feelings of being an insider (somewhat or complete insider identifications). Perceiving community spirit as strong is negatively associated with feeling stuck. Feeling stuck also has strong negative associations with perceiving the nearby outdoor amenities as desirable, providing a positive evaluation of the nearby surroundings, feeling that there are plenty of things to do in town, or indications of being involved in the community.

Contingency table analysis and open-ended questionnaire results

Cross tabulation provides a better understanding of the relationships among variables. In particular, examining the relationships between high levels of rootedness and other variables, as well as the relationships between feelings of being stuck and other variables, is most important to provide insight directly related to research questions. All of the results discussed here have at least a 95% level of confidence. In addition, results from open-ended questionnaire material provide context to the relationships discussed.

Perceptual aspects of rootedness

The strongest correlation among all variables in the questionnaire was the level of rootedness a respondent expressed and the statement "this is where I belong." The central question of the study asks what it is about small depopulating places in the central Great Plains counties of Kansas and Nebraska (the *Emptying Plains*) that keeps people rooted to where they live when many others have made the decision to leave. Correlation analysis suggests there are significant relationships between the level of rootedness and thirteen variables (Table 5.4). For cross tabulation of variables with being rooted, I took the threshold of a reported level of attachment that was at least an 8.0 out of 10, and created a new column where *rooted* = 1 for any respondent that met the threshold, and *not rooted* = 0. Out of 399 individuals that responded to

the question asking about the level of rootedness, 255 (63.9%) were *rooted*. Table 5.6 shows the contingency table for *rooted* and Question 24 "Do you agree or disagree with this statement: This is where I belong."

Table 5.6 Relationship between level of rootedness and level of belonging.

Q22. Do you agree or disagree with this statement: this is where I belong.		**Not rooted** (0-7 on question 17)	**Rooted** (8-10 on question 17)	**Total**
Completely disagree	Count:	13	0	13
	% of Row	100.00	0.00	100
	% of Column	9.09	0.00	3.27
Disagree	Count	31	1	32
	% of Row	96.88	3.13	100
	% of Column	21.68	0.39	8.04
Neither agree or disagree	Count	69	49	118
	% of Row	58.47	41.53	100
	% of Column	48.25	19.22	29.65
Agree	Count	24	124	148
	% of Row	16.22	83.78	100
	% of Column	16.78	48.63	37.19
Completely agree	Count	6	81	87
	% of Row	6.90	93.10	100
	% of Column	4.20	31.76	21.86
Total	Count	143	255	398
	% of Row	35.93	64.07	100
	% of Column	100	100	100
Pearson Chi-Square = 157.709, DF = 4, P-Value = 0.000 *Note* 1 cell with expected counts less than 5				

Results suggest that it is possible for a respondent to feel rooted to the Emptying Plains and at the same time not feel like they belong, but it is unlikely. Most respondents that are rooted also feel a sense of belonging. Of the 255 rooted respondents, none *completely disagreed* with the statement that this was where they belong, and only one person *disagreed* (0.4 percent). On the other hand, 80 percent of the rooted respondents either *agreed* (124) or *completely agreed* (81) with the statement.

Open-ended responses from the questionnaire help provide context and specific qualitative examples that compliment results of the close-ended material. Question 24 (*Do you agree or disagree with this statement: Living here makes me feel good*) was the only question that directly asked about belonging. When respondents were asked *what does your community mean to you?* (Question 25) or were given the opportunity to provide additional comments (Question 43 *Are there any additional comments you would like to make?*), the word *belonging* did not appear as often in open-ended responses as correlation analysis would suggest. NVivo, a computer assisted qualitative data analysis software (CAQDAS) was utilized to examine open-ended responses. A count of the frequencies of every word respondents used to answer all open-ended questionnaire response revealed that *belonging* and its stem *belong* only emerged sixteen times. The descriptors with the highest frequencies (Table 5.7) still allude to the associations with rootedness, such as community spirit, family, being involved with one's town, and earning a livelihood. The list omits prepositions and conjunctions. Words with the same base were condensed into a single category and their counts were added together (e.g., help and helpful).

Table 5.7 Top ten descriptors used in open ended responses of mailed questionnaire.

Descriptor	Counted lesser-used word forms	Count
people		398
community	communities	297
helps	help, helped, helpful, helpfulness, helping	283
school	schools	276
works	work, worked, working	260
town	towns	247
church	churches	246
living	live, lived, lives	208
family	family	188
needs	need, needed, needing	185

A few respondents that provided remarks in the space at the end of the questionnaire reserved for "additional comments" (Question 43) incorporated many of these concepts:

> *Our community is a good place to be, people care about each other. I've been a rancher all my life, I'm lucky to live here. I am the 3rd generation on this place, there is the original homestead shack here, plus 2 sod houses, one built by my father, uncle and grandfather in 1946. Lots of blood, sweat and tears has gone into living here. Have a great young man who will inherit this place so future generations can experience this lifestyle* (Respondent 120).

> *Small communities have a lot of positive attributes. However, they also have a lot of challenges. The good thing about the challenges are you usually never have to face them alone. Most the time you are not just a face, you belong to something or someone's group that is willing to help you out or at least join in the challenge. Larger areas generally you end up being a number if you are struggling* (Respondent 386).

> *Thank you for this opportunity to answer questions that allow me to express my opinion about my community. I believe we may not have attractive physical geographical features (mountains, lakes, rivers, etc.) but we have great people -- hardworking, helpful, friendly people who are still willing to reach out to others. At times, our small community lacks the ability to squelch gossip, but on the whole still comes together for the good of those who live here. I believe because we still have a significant population of Christian people we are willing to strive to keep this community employed, fed, and benefitting others :)* (Respondent 62).

Although the 'top ten' word count can imply a sense of belonging, the word itself was not identified by the count. However, there also were specific remarks that made feelings of belonging explicit:

> *I am extremely proud to live in North Central Kansas. I love being here and I do feel like I belong* (Respondent 110).

One response to the question "what does your community mean to you?" (Question 25), was succinct, but substantial:

> *A lifetime of belonging* (Respondent 370).

With respect to Question 25, the word *family* was used most often (69), although *belong* or *belonging* was not commonly used (6) (Table 5.8). The frequencies of these open-ended responses to Question 25 reinforce some of the significant associations between rootedness and other ordinal categories like family roots and community spirit. Respondents refer to their place positively. Community is a place many call home with friends and family where people tend to feel safe and perceive it as a good place to raise children:

> *I love living here; everyone pitches in to help others; I feel safe and I have a strong bond with [the] community* (Respondent 92).
>
> *This area means safety for my children, a rooted feeling for them, and living where friendliness, handshake deals, faith in Christ, and living off the land are the norm* (Respondent 117).
>
> *Safe place to live, raise a family, [and] be with family and friends* (Respondent 143).

Table 5.8 Most common words used when answering Question 25: What does your community mean to you?

Word	Count	Similar Words
family	69	families, family
living	62	live, lived, lives, living
place	58	place
home	48	home, homes
community	45	communities, community
friends	45	friend, friendly, friends
safe	39	safe, safely
people	39	people
raise	32	raise, raised, raising
town	29	town, towns

These word frequencies also allude to some of the significant associations between a sense of belonging and other variables (Table 5.9). The variables are similar to *rootedness* in

Table 5.4, but there are additional variables from the questionnaire that incorporate other historical, social, economic aspects. These variables are the number of years a respondent has lived in the area, the time spent socializing with friends and family, and the number of miles a respondent travels one-way to purchase the majority of their grocery items. The strongest relationship with belonging was a high reported level of attachment. Other very strong relationships with belonging include feeling good about living where a respondent does, perceiving oneself as an insider, as well as feeling that the community spirit is strong:

> *[Community means] being accepted and part of a group that wants and cares for me* (Respondent 294).

> *It takes everyone to do a small part to maintain a community or make things happen in a community for growth and sustainability; [it's] a great place to be a part of* (Respondent 231).

Table 5.9 Spearman correlation coefficients between belonging and other variables (≥ 95 percent level of confidence).

Variable	Spearman's rho
Rooted (grouped ordinal)	0.708
Feel Good Here	0.653
Insider or Outsider	0.577
Community Spirit	0.486
Involved	0.437
How much to do?	0.402
Livelihood	0.37
Nearby Surroundings	0.328
Aesthetics	0.315
Years Here (grouped ordinal)	0.293
Outdoor Amenities	0.275
Ease of Purchases	0.244
Family Roots (grouped ordinal)	0.234
Time Spent Socializing	0.222
Miles to Groceries (grouped ordinal)	-0.238
I am Stuck Here	-0.352

Social aspects of rootedness

Feeling like an insider in one's community, as well as their reported level of rootedness, plays a significant role in a respondent feeling like they belong in the area. Spearman's rho suggested that higher reported levels of rootedness was associated with the perception of being an insider ($r_s = 0.568$). Higher reported rootedness values for Question 17 showed a strong positive relationship to higher coded responses (4 for *insider somewhat*, or 5 for *complete insider*) to Question 22: "how much of an insider or outsider do you feel like here?" (Table 5.10).

Table 5.10 Relationship between rootedness and feeling like an insider or an outsider.

Q22. How much of an insider or outsider do you feel like here?		**Not rooted** (0-7 on question 17)	**Rooted** (8-10 on question 17)	**Total**
Complete outsider	Count:	10	0	10
	% of Row	100.00	0.00	100
	% of Column	7.09	0.00	2.54
Somewhat of an outsider	Count	43	13	56
	% of Row	76.79	23.21	100
	% of Column	30.50	5.16	14.25
Neither an insider or outsider	Count	47	56	103
	% of Row	45.63	54.37	100
	% of Column	33.33	22.22	26.21
Somewhat of an insider	Count	29	81	110
	% of Row	26.36	73.64	100
	% of Column	20.57	32.14	27.99
Complete insider	Count	12	102	114
	% of Row	10.53	89.47	100
	% of Column	8.51	40.48	29.01
Total	Count	141	252	393
	% of Row	35.88	64.12	100
	% of Column	100	100	100
Pearson Chi-Square = 99.042, DF = 4, P-Value = 0.000 *Note* 1 cell with expected counts less than 5				

This cross tabulation reinforces the relationship suggested by the r_s value. More rooted respondents most commonly responded that they feel like *complete insiders* than anything else (41 percent). Conversely, less than one in ten respondents that reported lower levels of attachment (i.e., not strongly rooted; reported a number less than 8) felt like a *complete insider* (9 percent). Another interesting note from the contingency table above is that no rooted respondents indicated they felt like *complete outsiders*, but ten of the not rooted did. The insider-outsider concept also surfaced through open-ended responses, particularly from residents who considered themselves outsiders:

> *Many people in rural areas do not realize that they make outsiders feel like total outsiders. They feel as if no one is equal to them. And even at community social events, non-relative, non-local people are ignored or talked about. Even if you go out of your way to be friendly you are not included, except if they want to be nosy about who you are and where you live and what you do? Then you are ignored. Some pioneer families stay hard in a harsh country* (Respondent 238).

> *I do like this area and the small town feel. However, it is hard for an outsider to feel like they fit in. Other "outsiders" are more welcoming* (Respondent 132).

A central commonality among most outsiders seems to be a lack of family roots, even for those who have lived in the area a long time or have married into local families:

> *This is a tight knit community. I grew up close-by and know everyone. I've never felt like an outsider – but my husband who did not grow up here feels like one. I don't see it but he does. Community can be slow to accept "outsiders"* (Respondent 141).

> *[We are] by ourselves – no support from community, never has been for 34 years. [We were] outsiders [when we] moved to the area, always been treated that way* (Respondent 10).

> *Can be very cliquish, lot of farm families that have been here a long time. Reason I stay is wife has kids here and lived here 40 years or more. I have really no connection. Would move to a different location with more outdoor stuff I enjoy* (Respondent 88).

Historical aspects of rootedness

There was a strong positive relationship between the number of years that respondents have lived in their current locations and the level of rootedness they reported ($r_s = 0.400$) (Table 5.11). Correlation analysis did not suggest a statistically significant relationship between the age of the respondent and rootedness ($r_s = 0.126$), but the contingency table does indicate that as age increases, so does the proportion of respondents that are rooted (Table 5.12). Conversely, as age decreases, the proportion of respondents reporting high levels of rootedness decreases as well.

Table 5.11 Relationship between rootedness and the number of years a respondent has lived in place.

Q35. What is the total number of years you have lived here?		**Not rooted** (0-7 on question 17)	**Rooted** (8-10 on question 17)	**Total**
1 to 10 years	Count:	34	30	64
	% of Row	53.13	46.88	100
	% of Column	24.11	12.05	16.41
11 to 20 years	Count	35	28	63
	% of Row	55.56	44.44	100
	% of Column	24.82	11.24	16.15
21 to 40 years ago	Count	37	53	90
	% of Row	41.11	58.89	100
	% of Column	26.24	21.29	23.08
41 to 60 years	Count	28	78	106
	% of Row	26.42	73.58	100
	% of Column	19.86	31.33	27.18
More than 60 years	Count	7	60	67
	% of Row	10.45	89.55	100
	% of Column	4.96	24.1	17.18
Total	Count	141	249	390
	% of Row	36.15	63.85	100
	% of Column	100	100	100
Pearson Chi-Square = 42.753, DF = 4, P-Value = 0.000				

Table 5.12 Relationship between rootedness and the ordinal age of the respondent.

Q38. In what year were you born? (ages in ordinal form)		Not rooted (0-7 on question 17)	Rooted (8-10 on question 17)	Total
20 to 34 years old	Count:	13	14	27
	% of Row	48.15	51.85	100
	% of Column	9.35	5.6	6.94
35 to 49 years old	Count	24	31	55
	% of Row	43.64	56.36	100
	% of Column	17.27	12.4	14.14
50 to 64 years old	Count	50	86	136
	% of Row	36.76	63.24	100
	% of Column	35.97	34.4	34.96
65 to 79 years old	Count	45	81	126
	% of Row	35.71	64.29	100
	% of Column	32.37	32.4	32.39
80 to 96 years old	Count	7	38	45
	% of Row	15.56	84.44	100
	% of Column	5.04	15.2	11.57
Total	Count	139	250	389
	% of Row	35.73	64.27	100
	% of Column	100	100	100
Pearson Chi-Square = 11.349, DF = 4, P-Value = 0.023				

Cross tabulation between levels of family roots and feeling like an insider/outsider produced too many cells with expected counts less than 5 to produce a chi-square approximation of any statistical reliability. Also, this contingency table only includes the respondents that indicated they actually had family roots in the area (74.8%). Combining *insiders somewhat* and *complete insiders* into a single category, and doing the same for *outsiders somewhat* and *complete outsiders* did allow cross tabulation between insiders/outsiders and variables like family roots. A higher proportion of insiders have roots that go back more than a century, and outsiders have a higher proportion of shorter term family roots in the area (1 to 25 years) (Table 5.13). The relationship of the historical roots insiders have compared to outsiders is similar to the relationship between the family roots of those who feel rooted compared to those who don't

(Table 5.14). They are similar in that the deeper the historical roots go, the greater the proportion of respondents feeling like an insider or feeling rooted becomes.

Table 5.13 Relationship between respondents with family roots in the area and feeling like an insider or an outsider.

Q15. If applicable, what was the earliest year/decade that a member of your family (such as a great-grandparent) began living here or nearby?		**Outsider** (1-2 on question 22)	**Insider** (4-5 on question 22)	**Total**
1 to 25 years ago	Count:	12	9	21
	% of Row	57.14	42.86	100
	% of Column	10.81	4.84	7.07
26 to 50 years ago	Count	12	17	29
	% of Row	41.38	58.62	100
	% of Column	10.81	9.14	9.76
51 to 75 years ago	Count	14	22	36
	% of Row	38.89	61.11	100
	% of Column	12.61	11.83	12.12
76 to 100 years ago	Count	34	39	73
	% of Row	46.58	53.42	100
	% of Column	30.63	20.97	24.58
More than 100 years ago	Count	39	99	138
	% of Row	28.26	71.74	100
	% of Column	35.14	53.23	46.46
Total	Count	111	186	297
	% of Row	37.37	62.63	100
	% of Column	100	100	100
Pearson Chi-Square = 11.278, DF = 4, P-Value = 0.024				

Table 5.14 Relationship between respondents with family roots in the area and feeling rooted.

Q15. If applicable, what was the earliest year/decade that a member of your family (such as a great-grandparent) began living here or nearby?		Not rooted (0-7 on question 17)	Rooted (8-10 on question 17)	Total
1 to 25 years ago	Count:	3	3	6
	% of Row	50.0	50.0	100.0
	% of Column	2.1	1.2	1.5
26 to 50 years ago	Count	31	9	40
	% of Row	77.50	22.50	100.00
	% of Column	21.99	3.53	10.10
51 to 75 years ago	Count	47	49	96
	% of Row	48.96	51.04	100
	% of Column	33.33	19.22	24.24
76 to 100 years ago	Count	50	134	184
	% of Row	27.17	72.83	100
	% of Column	35.46	52.55	46.46
More than 100 years ago	Count	10	60	70
	% of Row	14.29	85.71	100
	% of Column	7.09	23.53	17.68
Total	Count	141	255	396
	% of Row	35.61	64.39	100
	% of Column	100	100	100
Pearson Chi-Square = 58.210, DF = 4, P-Value = 0.000 * Note* 1 cell with expected counts less than 5				

Whether looking at the age of the respondent, the length of time a respondent has lived in place, or how deep her/his family roots are in place, there is a relationship between time lived in the area and being attached to it. It is impossible to speak in absolutes because there are clearly some young people who feel rooted to where they live and older people who do not and would leave given the chance like many others have. However, results suggest that the longer one has lived in a place, the more likely is stronger attachment to it. If family roots are included, the stronger the moorings become:

> *It's where my husband and I grew up, raised our kids, and now have some grandchildren here. We have great grand[parent]s,*

> *grand[parent]s, and parents before us. This is our home* (Respondent 58).
>
> *I feel privileged to live on my farm that was homesteaded by my great grandfather in 1872; I also own 320 acres that he homesteaded in 1869, sone of the oldest land homesteaded in Hodgeman County* (Respondent 148).

Economic and service aspects of rootedness

In addition to the perceptual, social, and historical components of rootedness in the Emptying Plains, services also play a role. Spearman's rho values of variables sharing statistically significant associations for both rootedness and belonging include the number of things to do and the ease of purchasing the majority of needed items in town. Say something about this. Not significant negative relationships, are they? There is also a relationship between the number of miles one-way a respondent has to travel to get the majority of his/her grocery items and other needs (Tables 5.15-5.16). The cross tabulation suggests that a rooted respondent is likely to perceive the acquisition of needed items in their community as easier than a respondent who is not rooted. This pattern also emerges in the number of miles respondents have to travel to get the majority of their grocery items. Although correlation analysis with Spearman's rho did not quite meet a critical threshold to suggest a significant relationship between rootedness and one-way miles to groceries, the chi-square a statistically significant relationship is revealed.

Table 5.15 Relationship between the perceived ease of purchases and feeling rooted.

Q5. How easy or difficult is it to purchase the things you need in your community?		**Not rooted** (0-7 on question 17)	**Rooted** (8-10 on question 17)	**Total**
Very difficult	Count:	23	25	48
	% of Row	47.92	52.08	100
	% of Column	16.2	9.92	12.18
Somewhat difficult	Count	58	62	120
	% of Row	48.33	51.67	100
	% of Column	40.85	24.6	30.46
Neither easy or difficult	Count	25	44	69
	% of Row	36.23	63.77	100
	% of Column	17.61	17.46	17.51
Somewhat easy	Count	30	102	132
	% of Row	22.73	77.27	100
	% of Column	21.13	40.48	33.5
Very easy	Count	6	19	25
	% of Row	24.00	76.00	100
	% of Column	4.23	7.54	6.35
Total	Count	142	252	394
	% of Row	36.04	63.96	100
	% of Column	100	100	100
Pearson Chi-Square = 22.526, DF = 4, P-Value = 0.000				

Table 5.16 Relationship between the miles traveled to get groceries and feeling rooted.

Q6. What is the minimum number of miles you can travel (one-way) to purchase the majority of your grocery items?		Not rooted (0-7 on question 17)	Rooted (8-10 on question 17)	Total
Less than 1 mile	Count:	17	43	60
	% of Row	28.33	71.67	100
	% of Column	11.89	17.27	15.31
1 to 5 miles	Count	30	53	83
	% of Row	36.14	63.86	100
	% of Column	20.98	21.29	21.17
6 to 15 miles	Count	12	59	71
	% of Row	16.9	83.1	100
	% of Column	8.39	23.69	18.11
16 to 25 miles	Count	22	39	61
	% of Row	36.07	63.93	100
	% of Column	15.38	15.66	15.56
More than 25 miles	Count	62	55	117
	% of Row	52.99	47.01	100
	% of Column	43.36	22.09	29.85
Total	Count	143	249	392
	% of Row	36.48	63.52	100
	% of Column	100	100	100
Pearson Chi-Square = 27.238, DF = 4, P-Value = 0.000				

Less rooted respondent are more likely to travel longer distances to get the groceries they need. Plenty of rooted respondents have to travel more than 25 miles to purchase the majority of their grocery items (22 percent), but nearly twice as many of those that are not rooted travel that distance (43 percent). Whether rooted or not, results suggest that many residents have to travel significant distances to procure necessary goods:

> *Where we live has huge potential, but there are no businesses near us and people who try to start them end up going under. We wish that there was more near us* (Respondent 294).

> *Doctors, prescriptions, shopping (beyond groceries and gas), hair dressers, and fast food are a 150-mile round trip. What most communities consider "basic," we drive over 100 miles to get (I can't get Sunbelt granola bars or Dove conditioner here). Fruit and veggies that are fresh and affordable fall into that category.*

> *But, we are lucky – some rural counties don't have a grocery store* (Respondent 14).
>
> *This is a good area to live in [but] our town is small so we have to travel 60 miles for [a] doctor, dentist, etc. We will not move unless forced because of our age* (Respondent 100).

The stuck

One of the questions for study was whether residents are rooted or stuck in place. More than one in six respondents (18 percent) responded that they feel stuck in place to some degree. When using an 8 or more on a scale of 1 to 10 as a proxy for being strongly *rooted*, nearly two in three respondents reported that they were rooted to where they live, but it is clear a significant number of respondents are not strongly attached (Table 5.17).

Table 5.17 Relationship between feeling stuck in place and feeling rooted.

		Not stuck (1-2 on question 18)	**Stuck** (4-5 on question 18)	**Total**
Not rooted (1-7 on question 17)	Count:	103	40	143
	% of Row	72.03	27.97	100
	% of Column	31.79	55.56	36.11
Rooted (8-10 on question 17)	Count	221	32	253
	% of Row	87.35	12.65	100
	% of Column	68.21	44.44	63.89
Total	Count	324	72	396
	% of Row	81.82	18.18	100
	% of Column	100	100	100
Pearson Chi-Square = 14.42, DF = 1, P-Value = 0.000				

The results of this analysis suggests that a respondent can feel stuck *and* rooted to where they live. That said, more stuck respondents indicated that they were not rooted. Finding an example in the open-ended material was problematic; the word *stuck* arose only one time and

was in the context of helping someone who had gotten their vehicle stuck. Only one respondent alluded to being stuck in place:

> *My wife is a para-educator with a 4-year BS degree in recreation therapy and psychology; she took a job at a nearby elementary school and started at $7.80 per hour. Same job in Tacoma was $17.00+. Her observation pertaining to other paras and teachers is that they consider themselves trapped, perhaps others do not, and they leave* (Respondent 13, Q43).

In this case, being stuck in place could mean not having other employment options that offer more money, being stuck in a job with poor wages, but they could be stuck for other reasons as well. Results from correlation analysis suggest that feeling stuck was associated with low evaluations of one's sense of belonging and if living in the Emptying Plains makes a respondent feel good. A respondent that feels stuck in place is far less likely to feel a sense of belonging compared to the cohort that is not stuck (Table 5.18). Residents who are not stuck are also more likely to feel good about living where they do (Table 5.19). This difference between the stuck and not stuck extends to insider-outsider perceptions, as well (Figure 5.20). Those that were stuck were far more likely to perceive themselves as outsiders compared to the unstuck.

Table 5.18 Relationship between feeling stuck in place and level of belonging.

Q24. Do you agree or disagree with this statement: <u>This is where I belong.</u>		**Not stuck** (1-2 on question 18)	**Stuck** (4-5 on question 18)	**Total**
Completely disagree	Count:	7	7	14
	% of Row	50	50	100
	% of Column	2.15	9.46	3.5
Disagree	Count	17	16	33
	% of Row	51.52	48.48	100
	% of Column	5.21	21.62	8.25
Neither agree or disagree	Count	99	20	119
	% of Row	83.19	16.81	100
	% of Column	30.37	27.03	29.75
Agree	Count	124	25	149
	% of Row	83.22	16.78	100
	% of Column	38.04	33.78	37.25
Completely agree	Count	79	6	85
	% of Row	92.94	7.06	100
	% of Column	24.23	8.11	21.25
Total	Count	326	74	400
	% of Row	81.5	18.5	100
	% of Column	100	100	100
Pearson Chi-Square = 36.79, DF = 4, P-Value = 0.000 *Note* 1 cell with expected counts less than 5				

Table 5.19 Relationship between feeling stuck in place and feeling good about living here.

Q16. Do you agree or disagree with this statement: Living here makes me feel good.		**Not stuck** (1-2 on question 18)	**Stuck** (4-5 on question 18)	**Total**
Completely disagree	Count:	2	4	6
	% of Row	33.33	66.67	100
	% of Column	0.61	5.41	1.5
Disagree	Count	11	13	24
	% of Row	45.83	54.17	100
	% of Column	3.37	17.57	6
Neither agree or disagree	Count	43	20	63
	% of Row	68.25	31.75	100
	% of Column	13.19	27.03	15.75
Agree	Count	136	26	162
	% of Row	83.95	16.05	100
	% of Column	41.72	35.14	40.5
Completely agree	Count	134	11	145
	% of Row	92.41	7.59	100
	% of Column	41.1	14.86	36.25
Total	Count	326	74	400
	% of Row	81.5	18.5	100
	% of Column	100	100	100
Pearson Chi-Square = 48.91, DF = 4, P-Value = 0.000 *Note* 3 cells with expected counts less than 5				

Table 5.20 Relationship between feeling stuck in place and the perception of being an insider/outsider.

Q22. How much of an insider or outsider do you feel like here?		Not stuck (1-2 on question 18)	Stuck (4-5 on question 18)	Total
Complete outsider	Count:	5	5	10
	% of Row	50.00	50.00	100
	% of Column	1.56	6.76	2.53
Outsider somewhat	Count	37	22	59
	% of Row	62.71	37.29	100
	% of Column	11.53	29.73	14.94
Neither an insider or outsider	Count	86	17	103
	% of Row	83.5	16.5	100
	% of Column	26.79	22.97	26.08
Insider somewhat	Count	92	18	110
	% of Row	83.64	16.36	100
	% of Column	28.66	24.32	27.85
Complete insider	Count	101	12	113
	% of Row	89.38	10.62	100
	% of Column	31.46	16.22	28.61
Total	Count	321	74	395
	% of Row	81.27	18.73	100
	% of Column	100	100	100
Pearson Chi-Square = 25.391, DF = 4, P-Value = 0.000 *Note* 1 cell with expected counts less than 5				

Looking at the total distribution of stuck/not stuck, those who feel that they are stuck where they are living have a larger proportion of respondents that feel like outsiders compared to those that do not feel stuck. Furthermore, stuck respondents are less likely to indicate that they feel like insiders. The stuck respondents are in many respects a mirror image of the rooted: they tend to not feel a sense of belonging, they are more likely to not feel good about living in the area where they are located compared to the rooted, and they are more likely to perceive themselves as outsiders in the community. In addition, stuck respondents are less likely to spend time with friends and family, they are more likely to find difficulty in purchasing the things they need in town, perceive fewer things to do, and are less involved.

Socio-economic and demographic variables like income levels, gender, and whether or not a respondent owned their own home showed no statistically-significant relationships with variables like rootedness, belonging, feeling like an insider, or the evaluation of the community spirit. However, in cross-tabulation, the age of respondents in ordinal form did have a significant relationship with two variables: rootedness (Table 5.21) and belonging (Table 5.22).

Table 5.21 Relationship between the age of the respondent and feeling rooted.

Q38. In what year were you born? (ages in ordinal form)		**Not rooted** (0-7 on question 17)	**Rooted** (8-10 on question 17)	**Total**
20 to 34 years old	Count:	13	14	27
	% of Row	48.15	51.85	100
	% of Column	9.35	5.6	6.94
35 to 49 years old	Count	24	31	55
	% of Row	43.64	56.36	100
	% of Column	17.27	12.4	14.14
50 to 64 years old	Count	50	86	136
	% of Row	36.76	63.24	100
	% of Column	35.97	34.4	34.96
65 to 79 years old	Count	45	81	126
	% of Row	35.71	64.29	100
	% of Column	32.37	32.4	32.39
80 to 96 years old	Count	7	38	45
	% of Row	15.56	84.44	100
	% of Column	5.04	15.2	11.57
Total	Count	139	250	389
	% of Row	35.73	64.27	100
	% of Column	100	100	100
Pearson Chi-Square = 11.349, DF = 4, P-Value = 0.023				

Table 5.22 Relationship between the age of the respondent and a sense of belonging.

Q38. In what year were you born? (ages in ordinal form)		Don't belong (1-2 on question 24)	Belong (4-5 on question 24)	Total
20 to 34 years old	Count:	12	15	27
	% of Row	44.44	55.56	100
	% of Column	7.5	6.44	6.87
35 to 49 years old	Count	23	32	55
	% of Row	41.82	58.18	100
	% of Column	14.38	13.73	13.99
50 to 64 years old	Count	61	78	139
	% of Row	43.88	56.12	100
	% of Column	38.13	33.48	35.37
65 to 79 years old	Count	56	71	127
	% of Row	44.09	55.91	100
	% of Column	35	30.47	32.32
80 to 96 years old	Count	8	37	45
	% of Row	17.78	82.22	100
	% of Column	5	15.88	11.45
Total	Count	160	233	393
	% of Row	40.71	59.29	100
	% of Column	100	100	100
Pearson Chi-Square = 11.171, DF = 4, P-Value = 0.025				

Results of the contingency table in Table 5.21 suggests that as respondents get older, they are more likely to indicate a high level of rootedness. In each ordinal category of age, the proportion of respondents reporting a high level of rootedness increases. Table 5.22 is very similar to 5.21. As age increases, the proportion of respondents who feel like they belong where they live increases as well.

Summary of questionnaire results

A dendrogram can provide an interesting way to visualize the relationships among variables (Figure 5.3). A dendrogram uses hierarchical clustering to look for pairs of samples that are the most similar in their responses and joins them together. The process continues in a

hierarchical manner from most similar to most dissimilar (Cheshire 2011). Working from the inside out, the dendrogram indicates that rootedness and belonging are the most similar to each other, and feeling good about living in the study area counties is closely related to that. Being an insider is also closely associated with these variables, as well, but it is not as closely related to rootedness as feeling good about living in the area or a sense of belonging. This means that being an insider is closely associated with being rooted, but as results show, there are outsiders who feel rooted as well. Earning a living in the community is a little further removed from the cluster with rootedness, and involvement with the community even a little less associated.

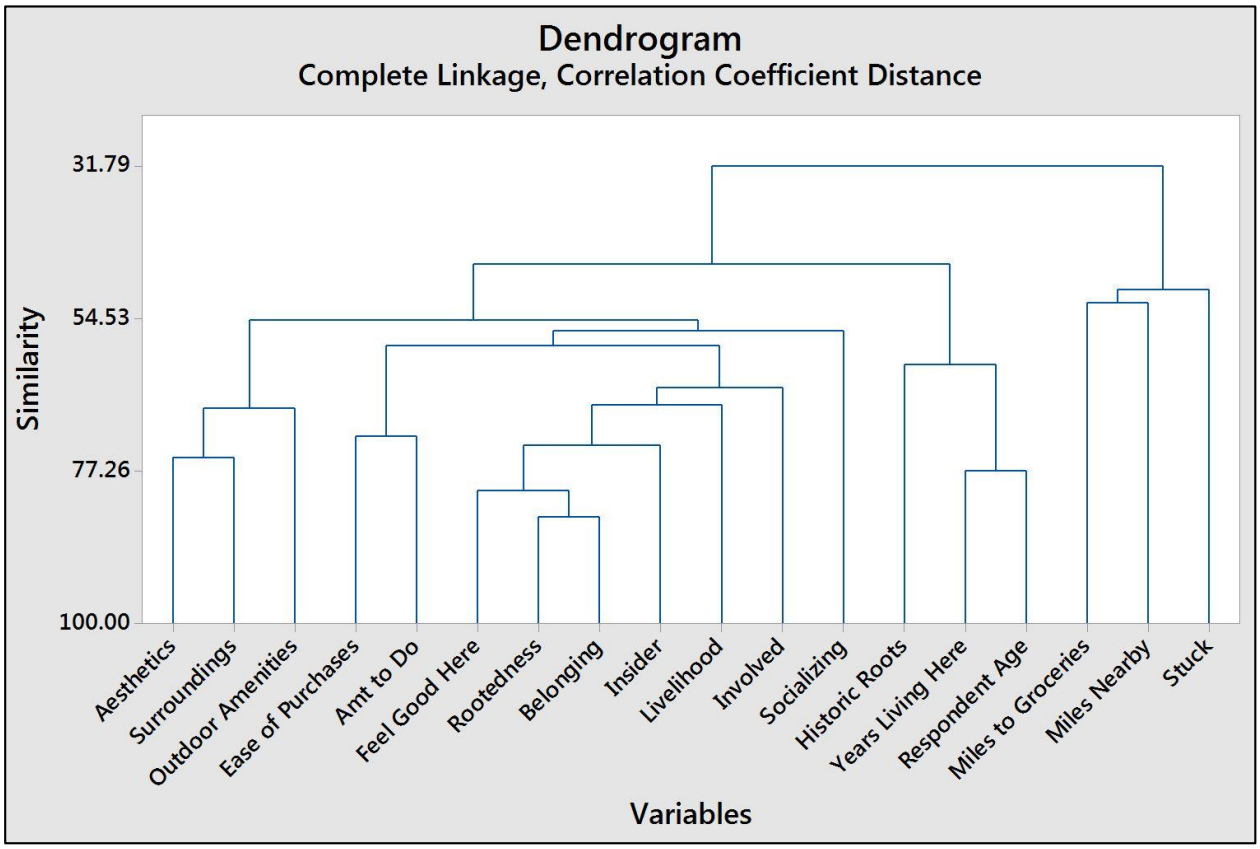

Figure 5.3 Hierarchical clustering of similarities among questionnaire variables.

All of the previous variables that are associated with rootedness are categorized under a single branch in the dendrogram. Outside of that single family is another small related cluster

representing the number of things to do and the ease of purchasing the goods needed in the community. This suggests these service/economic issues are related to each other (this makes sense considering that more things to do would likely be associated with more consumer services) and are related to a respondent's rootedness, but not directly related to the other more significant factors. Socializing is associated alone with both of these hierarchical clusters of variables, which suggests it is associated with rootedness, but to a lesser extent. Being social doesn't have a strong relationship with whether or not a respondent perceives themselves an insider, contributes to their sense of belonging, or influences how easily purchases can be made in town.

All of these variables are contained in a single, broader cluster of association. Beyond that family is another cluster containing variables related to perceptions of the natural landscape and other features outside: its aesthetics, the quality of the nearby surroundings, and the desirability of nearby outdoor amenities. This small cluster and the larger cluster of the other variables are all encompassed in a lesser-order family. Working upwards through the dendrogram is another small cluster associated with the larger family of variables more similar to rootedness: historical aspects like the respondent's age and years in place, which are closely related, and their association with family roots.

Finally, outside of all of this, the variables least associated with rootedness like feeling stuck, the perception of how far "nearby" is, and the miles a respondent had to travel to purchase their groceries are in a cluster by themselves. These variables − most associated with being stuck − seem to make sense considering a rooted respondent was more likely to travel a shorter distance to get their groceries, as well as to perceive farther distances as nearby.

Correlation analysis and contingency tables related to socio-economic/demographic variables did not yield any significant relationships. Ethnicity was not considered because of the 398 respondents that indicated their ethnicity, only eight were not white. The highest educational level obtained, unfortunately, was not asked of the respondents. Income levels and gender did not display any significant relationships.

Results of Focus Groups

A total of three focus groups were conducted in October and November, 2015. They were held in the county seats of three of the ten randomly-selected counties utilized in the mailed survey: Mankato, Kansas (Jewell County); Mullen, Nebraska (Hooker County); and Jetmore, Kanas (Hodgeman County). In all, 15 people participated. All names were changed to maintain confidentiality. There was a spectrum of ages from the late-20s to the mid-80s. Most participants were in their 40s or 50s. More females participated than males, but men were present in every focus group (Table 5.23).

Table 5.23 Summary table of focus group participants.

	Men	Women	Total
Jewell County, KS	1	3	4
Hooker County, NE	1	5	6
Hodgeman County, KS	2	3	5
Total	4	11	15

All of the focus groups began in the evening hours at about 6 pm. Each group met for approximately two hours. Mankato's group met on October 13, Mullen on November 6, and the Jetmore group gathered on the evening of November 10. In Mankato and Mullen, all participants were present at the start of the discussion. In Jetmore, two respondents joined the group approximately twenty minutes after the discussion began. At that point, audio recording

was stopped momentarily to greet the newcomers, administer informed consent documentation, and allow for participants to acquire refreshments. Once everyone was situated back at the table, audio recording began again, new participants were given the opportunity to formally introduce themselves, and the discussion picked up where it left off. Figure 5.4 shows the arrangement of the room in Jetmore's King Center, which was very similar to Mankato's set-up. In Mullen, the venue was a café, so three round tables were joined together, but the general seating arrangement and layout was not much different.

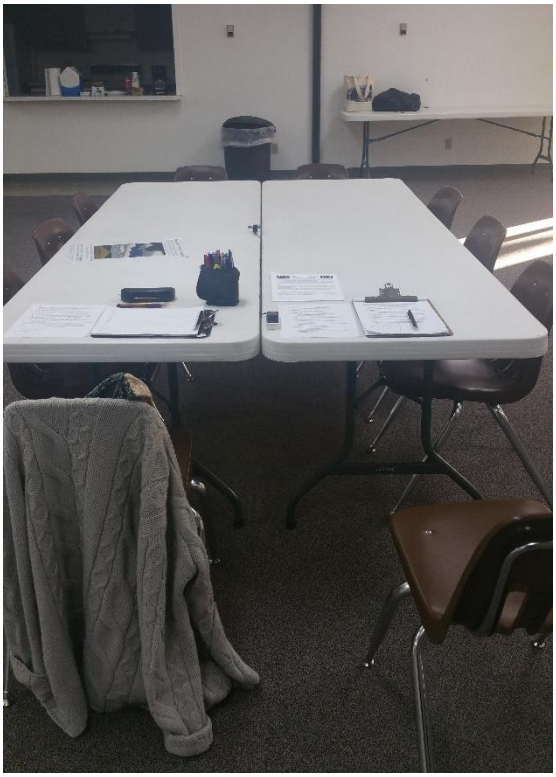

Figure 5.4 Seating arrangement at King Center in Jetmore, KS (Photo: A. Ramekar).

It should be noted that not all participants from the focus group in Mullen were from Hooker County, Nebraska. Some participants were from the neighboring county to the east, Thomas County. I did not consider excluding them for two reasons. The first reason is that Thomas County was also one of the ten randomly-selected counties for the mailed questionnaire.

The second reason is that these counties' (in the Nebraska Sandhills) administrative boundaries did not seem to matter as much as in other parts of the study area: survey respondents in Hooker and Thomas County frequently referred to their surroundings at-large: the Sandhills. A similar regional identity in other areas, such as the Smokey Hills or High Plains, was not made evident in survey responses. Respondents outside of Thomas and Hooker Counties would typically refer to their town, or occasionally their county. There were a few instances of a respondent identifying with their state, or western Kansas, but Sandhills residents have an undeniable regional identity. This was reflected in the names of businesses (Figure 5.5) in both counties, as well as other signage on the landscape (Figure 5.6).

Figure 5.5 Display of Sandhills identity in Mullen, NE (Wetherholt 2015).

Figure 5.6 Sandhills imagery in welcome sign outside Thedford, NE (Wetherholt 2015).

Questions posed to the focus group participants (provided in Chapter 4) were aimed at addressing the larger research questions of the study and providing qualitative context to the questionnaire results. Questions continued to explore the main question of what encourages a resident to stay in these remote rural places when others move away (e.g., *What are some of your favorite things about living here?*) and whether residents are strongly attached to where they live or feel stuck (e.g., *If someone asked you why you live where you live where you do, what sort of things would you tell them?*).

Best aspects of the Emptying Plains

When focus group participants were asked for their favorite things about living where they do, their responses reinforced the variables that showed significant association with rootedness in the survey. Community spirit, things to do, and involvement with the community were common subjects:

> *It's the idea of 'we're all out here – it's one for all and all for one.' It's not necessarily the "it takes a village to raise a child" type of an idea, but something that we just did that's just coming out right*

> *now is we're donating beef to our local school system. It used to be bureaucratically impossible to get local beef into the school system because who knew what kind of beef it was going to be, but bureaucracy has gotten out of the way and common sense prevails. We haven't even advertised that we're doing that yet, and there's already beef, other people are already donating, in just the wake of it like 'Oh my God, how come didn't we think of that?' And so there's lots and lots of beef already being pledged and this is the first year we're doing it, and the article in the paper hasn't even come out yet. So, there's just that mindset, and could you imagine that happening in North Platte, or Valentine [seat of adjacent Cherry County, NE], or Dallas* (Brynn, Hooker County)?
>
> *We do have a lot of organizational things out this way. Whether it's poker night, or things with the golf tournament, or people that are avid golfers. Whether you're male or female or whatnot, we do have a lot organizations that are active* (Susan, Hodgeman County).
>
> *I suppose I just kinda like the type of the activities I was used to growing up that you can be involved in and those kinds of things … church or community type groups or things that kids are involved in … service related groups or that kind of stuff* (Janet, Jewell County).

Another common theme with respect to focus group participants' favorite things about living where they do was simply the rural lifestyle they have. The aspects of living in a small town, or the simple life, and the freedoms it affords were central:

> *It's a very laid back community. There's a sense of – when you guys were talking about if you had a flat tire – there's a sense of camaraderie just because you live here. It took me a little bit adjusting from, I wouldn't say Great Bend was a metropolis by any means, but coming here, just you kind of focus on different things. It's a different type of living, it's a more simple [life]* (Sarah, Hodgeman County).
>
> *I guess [one of my favorite things about living here is] being rural, maybe. I enjoy being – I wish I were closer to a larger city, but being able to go down [the road] without the cops. You can see past the road ditch. That's probably what keeps me, you know, what keeps me in the rural community* (Ron, Jewell County).

> *Well, I want to live in a small town, in Mullen. I really like to live here. It is so quiet. When we go to Omaha to see Chris, oh my garsh [sic], that traffic, that buzz buzz buzz; I don't know anyone can live in a big town, in a big city* (Marilyn, Hooker County).

> *I like having a simple life. I mean it's like Marilyn said, it's very quiet, and I guess sometimes you could say that was boring or something, but I like it, just working and being at home, and that type of thing* (Nancy, Hooker County).

Along the lines of rurality, another positive that emerged among the focus groups was the time-distance that could be traveled in the countryside compared to urban areas. Participants remarked that in the city distances between destinations were shorter, however, the time it takes to cover the distance was greater:

> *Karen said something about driving some place, and she kinda said something too about traffic. Well you can sit at stop lights for a long time and intersections in Wichita … might take you 40 minutes to drive 3 miles … here you can drive 55 miles in 45 minutes* (Janet, Jewell County).

> *Well and I think, too (I don't know if anyone agrees but), it takes you an hour to drive a couple of miles in traffic, and we could've gone 75 miles or 80 depending on if no cops are around, hahaha! So, I think it's hard for me when I go to places like that because you're just sitting and you're just not moving, you know? And here we're just so used to being able to get out and go* (Betty, Hooker County).

Other remarks alluded to a strong sense of safety and that the communities are a good place to raise a family. Doors are commonly left unlocked, parents let children play outside with little trepidation, and there are activities for kids to get involved in like 4-H, Future Farmers of America, and youth sports. Unique to the group that gathered in Hooker County was the regional identity with the Sandhills:

> *I would agree with everything everybody said. One thing I have found is more – just what the Sandhills are – it's more the look and*

> *the feel of them, and I don't think there's any other place like it. It's probably the artist coming out in me, but I grew up in the eastern Sandhills and I really don't want to live anywhere else. And so some people go around and retire, and move to Italy and they [think] this is the best place they've ever lived, and I feel lucky enough that I've lived somewhere that … you know, it's just where I need to be* (Betty, Hooker County).

Making life better

I asked participants what sort of things would make living better where they are located. Jobs and services were the most pronounced. Individuals expressed a desire for more job opportunities in their vicinity:

> *If we can get any younger people who are in more service related businesses. Our accountants, our attorneys are getting older – I know that those occupations even for here … they make good money. We can keep an electrician, a plumber, carpenter is busy here, but I think the whole organization of running their business is a challenge for them and I kind of wondered if we can figure out some way to provide like a little nucleus of the administrative service for them that they share. Somebody who answers the phone or helps them with their bookkeeping, and their payroll taxes and all the reporting comes along instead of them trying to hire somebody* (Janet, Jewell County).

> *If I can say something about service, we need more service type jobs around here. The local plumber now has one of his kids working with him…and also brought in another kid – sorry I call them kids, kids to me anyway. [The plumber] told us several times that he has gone to technical college in Mitchell County and said "I need an apprentice. I need someone to come in and help me with plumbing, we have more jobs than what we can handle." The example he gave us was last year was there were nine kids in that class who graduated [and] before they left … they had huge paying jobs in Wichita, Kansas City, wherever – everywhere but here. [The technical college] said "we would send you somebody if we knew somebody wanted to stay." But, once again, they want to get out for a while, and maybe they will [return] once again later, but that does not help our local plumber now* (Karen, Jewell County).

Aging, impending retirements, and needs for replacements were subjects of discussion. Karen had a tone of concern about the ensuing need to fill those positions, but also seemed optimistic:

> *One of the things that we have talked about in the JCCDA [Jewell County Community Development Association] is something that Janet just brought up: the fact that we do have an aging community. Our pharmacist is pretty close to retirement, our district attorney – he has got to be getting pretty close [to retiring], he is in his 60s. We have several school teachers that are about to hit their 25 [years of service] so they will be out here soon in the grade school, so we might see a huge turnover here in the next 5-6 years I think* (Karen, Jewell County).

When the idea of more jobs came up, Ron agreed that it would improve the community:

> *[More job opportunity] is a double edge sword, if we had a larger employer … I think it would be better if we get…some sort of manufacturing slowly growing as you can provide the work force. That would add to the economy of the community. I think as a small business owner your tax can lead you to debt, and it keeps me from wanting to do anything else because by the time you pay all the taxes: the property, income, and sales, do you really want a lot more headache for a very little return? … I want to build some more but the property tax makes it prohibitive. I just, I don't know – you just have more business, [you have] more economic opportunity in the community. It would make it better* (Ron, Jewell County).

Services were a part of what participants thought would make living better, too. In particular, consumer services and medical services are of concern:

> *I am diabetic, so I need a pharmacy because you can't ship insulin when it's hot, you can't ship insulin when it's cold so in Nebraska you just can't mail it, and so I'll make special trips to North Platte or Broken Bow just to pick up supplies. So that's probably my biggest one* (Betty, Hooker County).

> *I think medical, also. Because we have some issues … Our oldest son had heart issues, and that always worried me. My husband now has heart issues, so it's there all the time, that worry of would we make it* (Ethel, Hooker County).

> *Personally, I really need a coffee shop. I <u>really</u> need a coffee shop* (Laura, Hodgeman County).

> *Well, coming from a stand point as a mother – and now my kids are out of the stage where we [don't have a] need of diapers and formulas all the time – but I had to go out of town for… the things that [were] necessary to raise a family. I had to buy [a] car seat, I want to buy diapers, buy formula … I mean we would have to go out of town and even if we went to Walmart or to Target or something, I am not just going to pick up those the five items I need and then come home. I probably want to get more stuff. So as a mother, it probably would have been easier for me to have that kind of stuff that I can just buy in Mankato* (Janet, Jewell County).

Another service-related improvement that would make life better for some residents is access to a higher quality of internet service. The internet was regarded as a necessity to acquire items not easily obtained nearby. In addition, the internet provides access to services like distance education and virtual doctor visits:

> *I suppose faster wifi would be probably the most helpful in a rural area simply because everything we need we can get via [internet] communication. I mean, there's these [virtual] doctor visits, and being able to get really high-quality teachers via teleconferencing, you know, you don't necessarily have to lure the best of the best of the best here because a lot of people don't want to live like we live. Being 100 miles from Walmart is scary {group laughs}* (Brynn, Hooker County).

A lack of housing options was a concern among participants as well, particularly when it came to mid-range properties. This affected the study area, and by implication the larger region, in two ways. The main issue is the challenge of finding a place to live for newcomers. The other is that smaller homes would be a better option for aging residents that live in large houses alone:

> *I struggled at that [finding a house] when I moved here. When I moved here, they couldn't find – like I had to be up here as soon as possible – there was not a house, and part of that was the oil and gas boom. We had so many companies here, and so many people here that had jobs that needed a place to stay, so the rentals were rented up or just flat out bought-out by the companies. So, when I*

> *came up here, the second I'd look at a house, next thing I know, it's gone. The only thing that ended up being available was a trailer house, and they ended up having to re-gut the floors and do a whole bunch of other stuff because of the prior tenants, but I struggled with that moving up here* (Sarah, Hodgeman County).

> *We have a new person in the community that's living in a RV. Of course, he's working out at the lake and it's easier for him, but, he checked around town and some of the rents were just too high for whatever [was offered], so he just got a RV … The HAT, the Housing Assessment Tool [from Kansas' Moderate Income Housing (MIH) Program revealed that] it's a moderate income gap. We have high-end housing, and low-end housing, and nothing in the middle* (Laura, Hodgeman County).

> *When you get to a certain age, maybe you can't live in your big family home anymore. There is not any opportunity for them to down size and I think of my mother, she is getting close to 70 and she still lives in a 4 bedroom house and there are stairs and she can't go up the stairs – that's why she lives on the bottom floor of her house, and what I do with her next? You know, there isn't assisted living … we don't have senior apartments. We have the low income housing, but our low income housing has turned into senior apartments, seriously. There are not many actual low income people living in the low income housing* (Karen, Jewell County).

The last item to highlight is associated with the age dynamics of the communities. There were two participants in their mid-20s to early-30s (Sarah in Hooker County, and Susan in Hodgeman County). Sarah did not mention the deficit of young people in her community. Susan, however, expressed a desire to have more young adults around Jetmore:

> *The one thing that I struggle with here, and this is just more of a personal thing, there's … this age group that is almost non-existent here, and I happen to fall into it. It's kind of just – it's that awkward, in-between, but you can get along with anybody either way on the spectrum. So I don't know if it's something that I'd like to see here, but it makes it harder when you're here because you just kind of feel like you don't fit* (Susan, Hodgeman County).

This statement was followed up shortly by Laura, who agreed with Susan's assessment. She cited feedback she and her organization had received in the past from younger adults who made the decision to move away:

> *Susan addressed the young professionals. When we interview people after they move, that's almost always it. Whether they moved for a job or something else, that's what they say is "I was missing that group in there." And so a couple years ago, we tried a young professionals group, and all the young professionals were so busy we couldn't find a time for it to meet. But that is, I'm thinking of a couple more people that I hope we don't lose, but they're in that same age group and I see them getting more and more disconnected from the community* (Laura, Hodgeman County).

Why live here?

Focus group participants were asked what they would tell someone who asked why they live where they do. Of the questions that were posed to the groups, this question was the most directly connected to the main research question seeking to identify varied aspects of place that encourage individuals to remain despite many push and pull factors. Most of the responses alluded to the concept of social capital (Flora and Flora 2016), which is one seven community capitals (e.g., natural capital, human capital, and financial capital). Social capital incorporates the norms of reciprocity in an area. These norms can be reinforced through the formation of groups, collaboration within and among groups, a collective identity, and collective action. These aspects are related to the closed-ended questionnaire variables like community spirit and being involved, which were closely associated with rootedness. A good example of social capital in these very rural areas was help after a storm. When a tornado struck Karen's Jewell County property in May 2015, the community pitched in with the clean-up effort without a single call for aid:

> *They had over a 100 people the first day show up at their house – cleaning, walking the fields, picking [up] all that stuff … That kind of thing does not happen in a city very much … the church-based activities, or moral based activities, or whatever you want to call it. Everybody pitches in and helps [here]* (Laura, Jewell County).

Another response that touches on social capital was Lou's story of helping with a fundraiser in Mullen to collect money for a community swimming pool:

> *I remember {laughs} swimming pool [pledge] collection and it was blizzarding! {room laughs} Believe me, that was – we found out a lot of things then. {more laughing} But we had to raise $35,000; I didn't think [we'd be able to] – but that wasn't too bad* (Lou, Hooker County).

A very prominent response was about small-town living. Focus group participants commonly referred to rurality and a simpler life:

> *I just like that rural setting. I mean, I was born and raised basically in the country, and – I love it* (George, Hodgeman County).

> *It's just the quietness and we just like it here. Even our son that lives in Omaha, when they come home for a weekend they can't get over the idea we never lock the car, never lock our house, and talk to everybody, and he says it just seems like old times coming back home. I said now see why we don't want to move where you're at* (Marilyn, Hooker County)?

> *I like it here cause it's a good place to raise your kids…they start getting 4th 5th 6th grade-age [and] you leave them home alone, you're comfortable with that. You can park in the parking lot of the grocery store and [let them] go in and get a gallon of milk and a loaf of bread, and you are pretty sure they are going to come back out. You can still pull up to the filling station and have somebody to wash your windshield and pump your gas for you – that's a plus. That's something that I really like about here. There are two filling stations here where you can do that. The [service] people that do come out [to your home] and do things for you, if they are local, they kind of keep track of things. They know how old your hot water heater is. They know how old your furnace is. They pay attention to that kind of stuff* (Janet, Jewell County).

Karen referred to small town living, but also made an interesting comment about being involved with the community. Being involved provided her with a sense of acceptance. The survey suggested that there was a strong positive relationship between rootedness and being involved, and this remark complements that finding:

> *It's just a comfortable community. People know me and I know them. If there is a situation happening with your family, they know about it, and sometimes that is a double edged sword – some people know a little too much. Like Laura, I am involved in a lot of clubs and a lot of rotary activities … I feel like I am accepted. … I moved back here like when I was 23 and [residents] just immediately accepted me over here – they were happy to have a young person moving back and I feel that way when my students move back after they have graduated college. [I say] "Hallelujah, you're back, I am so happy! I am going to throw you in this club and this club, you've coming to historical society with me and … I just feel like if we can get ahold of people and if get them involved in things, we make them wanna stay and let them know how awesome it is [here]* (Karen, Jewell County).

Belonging and rootedness were the two variables most closely associated with each other in the mailed questionnaire responses. Much like the open-ended responses, *belonging* was not a common answer among focus group participants when asked for reasons they choose to stay where they do. In fact, no one used the word in any of the focus groups, although other terms approach a similar meaning. Two Hooker County participants made reference to a sense of knowing that the Sandhills were where they meant to be:

> *I can't think of a better place in the world to be. I didn't know the Sandhills existed until I was in graduate school with her daughter {motions to Ethel} and she hauled me from Lincoln out to the ranch, in February of, like, 2001, 2002. And we came in in the dark, came off I-80 and then popped off Tryon [north of North Platte], and we came in on these little – they looked like bike paths, but these are all roads – bike paths. And, we're driving on this single-lane bike path doing one of these jobs {curvy motions with hand} through the hills and it's dark and I'm looking around I*

> *thought where's your section lines? Do you all bury your power lines around here? Because even in North Dakota you see section lines and you see a yard light there, and a yard light there, and you drive past farm fields – I mean there's nothing [in the Sandhills], I mean it's dark. We drive into the ranch, and we pull up for the night, and I always tell the story that the next morning the sun rose over the Grant County hills [next county west of Hooker] and I heard French horns playing, and I knew I was home. I, honest to Pete, I knew that I needed to live there, that spot. And I spent the weekend out there calving heifers and just being completely isolated, and understanding that that was where I needed to live. I went back to Lincoln the next Monday and started looking for jobs in the Sandhills and applied for [my current position] and that's how I ended up out here. But there was just, um – I don't know to explain it other than my heart just knew this was where I needed to be* (Brynn, Hooker County).

> *I went to [graduate school out of state] to get my master's. I lived there for two years, and one time I drove home with a couple of my friends, and as soon as I came to the Sandhills it was like I had, kind of like Brynn, a religious experience. It was – I had missed 'em* (Nancy, Hooker County).

These responses hint at the strong regional identity that exists in the Nebraska Sandhills, even for people who have encountered them for the first time. Survey respondents outside of the Sandhills did not have a similar regional attachment to place, based upon the content of their responses, nor did focus group participants. I, too, felt a strong sense of place in the Sandhills. There was a quality to the undulating grass-covered dunes that was almost seductive, like a Siren song. It is very hard to articulate, but it was pronounced. Travelling to the other focus group venues did not produce a similar emotive response as I took in my surroundings.

Brynn made another attempt to touch on the abstract nature of rootedness and belonging:

> *If I can expound just a little bit at this intangible idea – we as human beings search our whole lives for our purpose, right? And, you seek: you seek in religion, you seek as a person, as a mother, how to become a better human being and when you live as tied to the land as we do, whether or you're not you're a rancher in this room or not, your livelihood is based off of Mother Nature. We*

> *live and die by the weather, end of story. So, it's a daily force for us to understand that we are not in control. There is a higher power, and we do have a purpose, we do contribute and we can see it every day with our community, with our people. Whatever your purpose is, it's very easy to figure it out. We're not isolated in an apartment building in Omaha waiting to see what the mail lady brings today as our only form of social interaction, it's a real thing* (Brynn, Hooker County).

The analysis of questionnaire responses did not yield any significant differences between gender, income levels, marital status, or ethnicity and rootedness. Educational levels were not obtained, unfortunately. The age of the respondent did not show a significant relationship in correlation analysis, but cross tabulation did suggest that the oldest residents (80 to 96) were most likely to report a strong level of rootedness (at least an 8 out of 10 as opposed to a lower rootedness level [95% confidence]). When Lou, an 86 year old Korean War veteran, was pressed to identify one thing he didn't like about where he lives in Hooker County, it was not a negative about where he lived. Instead, he provided a response that pulled on the heartstrings:

> *When you get to be 86, why, what are you thinking about? You're gonna go. You're gonna have to leave, some way. You kinda hate to leave it. You're born and raised here … been a citizen all that time, too many good things has happened, I – I don't know. Like they keep saying – well I guess just we'll say it – the VA [U.S. Department of Veteran Affairs] is coming out that too many of us are committing suicide. Because we get to this age, we think "well we can't do this," or our back hurts, or something, so why not just end it? Let's don't put a burden on our family. And there's a lot of 'em thinking that, and they're [the VA] trying to combat it* (Lou, Hooker County).

Out of all the things that Lou could have mentioned, the one thing that he chose to say he didn't like about where he lived was the fact that his mortal coil, in one way or another, was going to force him to leave. This response above all others seemed to affect me the most. There was

something vulnerable in the remark, and I feel an overwhelming gratitude for a stranger feeling comfortable enough in a group setting to share something so personal.

Finally, along the lines of age affecting rootedness, there was no statistical significance with younger respondents and the level of rootedness they reported. In focus groups, the two youngest participants did not say anything to indicate that they *weren't* rooted, but some of their remarks suggested their levels of rootedness were lower. When I asked Susan why she lived in Hodgeman County, her motivations were different than others:

> *My job. That sounds cold now that I say it, but that's why I came and that's why I'm here. That's why I came* (Susan, Hodgeman County).

This is not to say that others in the focus group did not live where they do because a job brought them there. However, no one else said that was why they live where they do. People discussed the rural way of life, the quiet, the safety, things related to social capital, and so forth. Sarah was the other young adult that participated. She expressed contentment with living where she does, but did not appear to have as many moorings to Hooker County as the others:

> *Well, I'm still at the age where I'm single. I don't have kids to worry about. And so, I don't know, if some crazy thing – if there was some amazing job in Paris – you can't really say no to that. Or, you know, something like that. But for now, I'm content here. So, it's hard to say for me, but – who knows where anyone is gonna be in five years or ten years* (Sarah, Hooker County)?

To stay or go

Sarah was responding to the question *if you had the option to move away from here, why would or wouldn't you?* This question explored rootedness as well, but it also offered respondents an opportunity to make comments that might suggest they were stuck in place. According to the closed-ended survey results, a stuck resident would be likely to indicate lower

levels of belonging, negative emotions about where they live, feeling like an outsider, and perceiving community spirit as weaker than rooted respondents. Again, age did not a show a statistically significant association with rootedness besides the oldest cohort being more likely to indicate they are rooted. However, the presence of family roots did have a positive relationship with rootedness, and the number of years a survey respondent had lived in place showed a positive relationship with agreeing with the statement that they belong where they live. None of the focus group participants indicated that they were stuck. The younger participants did seem more open to the option of leaving, compared to the others. Susan did not say she would leave outright, but having less time in her location did seem to have an effect on her willingness to stay. She also hinted at being somewhat an outsider:

> *I know I have a different answer [about staying or leaving] than everybody else. I feel like here I'm still a newbie even though I've been here a couple of years. But I think I feel that way because most people have lived here their whole lives. So, I don't feel like I'll get out of my newbie stage until probably a decade in, to be honest. I think I could go either way. I think there could be roots here … I could see me going either way* (Sarah, Hodgeman County).

Other participants, like Bonnie, clearly did not have an intention of leaving:

> *I'd probably stay. More or less, I've never known anything different. I mean, I went from more to less and I'm just perfectly fine with it. I don't know that I'd want to get into that rush, that's just a different life – I just like the small town living* (Bonnie, Hodgeman County).

However, Bonnie's husband Lewis remarked that if oil production in the vicinity led to a population boom similar to western North Dakota's recent experience, there would be no hesitation in making the decision to leave Hodgeman County:

> *Well, that brings up an interesting thing because I remember when we {motions to Laura} were talking about what happened in North Dakota [with oil production increasing and population growth]*

> *about happening down here. I think I remember telling Laura that if what happened up there happens down here, I'm moving. That's the only way I think I would leave. It's just, my way of life – yes, we need a little more here, it'd be nice to have a little more, but is our infrastructure [capable of such growth]. I mean, we just built onto the school, the hospital, we just done [sic] some things, and if you double our growth – are those people [brought by an oil boom] gonna stay? Hopefully, but if we have to build more, that's gonna put a challenge on what we already have here … and what are you left with when they move or if it doesn't work out* (Lewis, Hodgeman County)?

Ron, in Jewell County, seemed to have the least hesitation when it came to leaving, but still left the option to return on the table:

> *Yeah, I would move! Just other places that I want to work. I mean, it is not to say that I won't come back…but I see myself once the kids are away for a lot of the time of the year…once that is gone…I can see myself going somewhere else if nothing else but for a change of scenery* (Ron, Jewell County).

Other respondents expressed a very strong attachment to place when asked if they would stay or leave given the option. Brynn's response was by far the most resolute when it came to staying:

> *Yeah, I will [stay]. I want to have a natural burial: I want to put a hole in the ground on the ranch and put my body in it without a box or anything else, that's how rooted I am. This is it. I'm not going anywhere else. Let the worms eat me, {laughs} just don't let the coyotes drag me over the hill. Bury me where the coyotes can't [get me]…I don't want to be cremated either. Just put me in a hole. Take the good stuff out, give it to someone that can use it, put the rest in the hole. So, yeah, I'm not going anywhere* (Brynn, Hooker County).

Summary of focus group results

Focus group participants did not show noticeable differences from county to county when it came to the elements of place that are encouraging rootedness. All three groups cited common

variables that emerged in survey results: a sense of belonging, positive emotions regarding living where they do, a strong community spirit, and community involvement were all reported. The rural way of life was also a common thread; participants often discussed things like a quieter setting and an ability to cover distances much faster than their urban counterparts.

All groups agreed that access to more goods and services would make living where they do better. In addition, the need for jobs to attract newcomers was seen as important, especially when considering the age of some professionals in the communities that would be retiring in the near future. Participants did see the trade-offs involved with more people, including added stress to already stressed housing situations, and the potential to change the way of life that attracted them in the first place.

The biggest difference between the focus groups was with the group that met in Hooker County. These participants, like the survey respondents, displayed a regional identity that was not matched in Jewell or Hodgeman County. The Nebraska Sandhills were prominent in participants' responses, more so than discussing their county or the city of Mullen. This was the same sort of regional place identity that came through the results of the questionnaire.

Focus group participants also showed some differences by age. The two younger females that were in the focus group discussions did not feel stuck, but they did not communicate the same level of attachment that the older participants did. They seemed less willing to say that they would stay where they are, if given an opportunity to go elsewhere. The oldest of the respondents tended to remark that they would go somewhere else only if they had little choice.

Finally, the only other difference that seemed noticeable among focus groups was in the composition of the participants in Jewell County. In Hodgeman County and Hooker County there were some married couples that participated (Marilyn and Lou in Hooker County; George

and Laura in Hodgeman County, as well as Lewis and Bonnie). Jewell County did not have any couples. Jewell County also had the smallest number of participants, which was only four. Of the four, the three women seemed to know each other well, and at times conversation would stray from the topic. I found myself trying to steer the conversation back to its intended purpose much more often than in Hodgeman County or Hooker County.

Summary

The elements of place that encourage residents of the Emptying Plains to remain rooted were similar between the responses of the mailed questionnaire respondents as well as the participants of the three focus groups. Rootedness was most associated with a sense of belonging. Rooted respondents also indicated that they felt good about where they live. In addition, many rooted individuals perceive themselves to be insiders in the community and view the community spirit to be strong. Results of the focus groups provided rich qualitative data that triangulated with quantitative results and offered a holistic view of the aspects of place encouraging someone to remain in a depopulating region

Questionnaire results suggest that being involved with the community has a positive relationship with levels of rootedness. Expressions of involvement through clubs, socializing, community organizations, and other venues were common both in questionnaire responses and focus groups. The aesthetics of an area − in particular, positive evaluations of it − were also related to rootedness. Rooted respondents were more likely to perceive the visual appearance of their nearby surroundings favorably. When speaking with focus groups, this idea was most prevalent in Hooker County. Participants described the "look and feel" of the Sandhills. In Hodgeman County and Jewell County, did not bring up the physical landscape as frequently as those in Hooker County.

Results from the questionnaire support focus group material. In turn, the results of the focus group help triangulate the findings of the questionnaire. Open-ended questionnaire responses provided some context to the closed-ended results, and comments shared in the focus group discussions provided robust qualitative data that was not afforded by a survey. As a whole, the sequential mixed method approach to this study enabled me to obtain a rich, contextualized picture of the varied aspects of place that are keeping people in the very rural counties of Kansas and Nebraska's central Great Plains.

Chapter 6 - Discussion

Introduction

Both the mailed questionnaire and focus groups generated a very large amount of data; at this time, I am making an effort to restrict discussion of the data and findings to themes congruent with the main research questions of the study. These include rootedness/positive place attachment; the condition of being 'stuck' in place, with a lack of positive place attachment; the influence of micropolitan places; and survival of small communities.

While I did not have formalized hypotheses regarding the research, there were some general expectations with respect to outcomes. When it came to the aspects of place encouraging an individual to stay put, family roots to the land along the with length of time an individual had lived there, positive evaluations of the aesthetic properties of the natural landscape, economic opportunity, and elements of social capital were all expected reasons for a person to be attached in a very rural portion of the Great Plains. All of these aspects of place were found to have strong relationships with high reported levels of attachment to place and are discussed in this chapter, along with other aspects like perceiving that there are many things to do in the community and nearby and finding it easier to purchase the things needed within the community.

As far as individuals being attached to place as opposed to stuck in it, I expected a distribution of respondents that were skewed to higher levels of attachment. I also expected to find a small group of people who felt stuck to some degree. It would be highly unlikely to expect every single respondent to be content with where they lived and strongly attached to it, especially with a representative sample of the population. The distribution of responses when it came to levels of attachment was as expected. In addition, about one in six survey respondents either completely agreed or agreed to the statement *I am stuck here*. All of the significant

relationships between feeling stuck and other variables were inverse, like a perceived lack of things to do, or a negative evaluation of the aesthetic qualities of the surrounding natural landscape. These are discussed, as well.

I did not know what to expect when it came to the influence of nearby growth poles on place attachment. Perhaps respondents in counties adjacent to micropolitan counties would report a higher level of attachment to where they live because of their proximity to larger places and its available services. This proximity to larger areas could promote rootedness because the availability of goods and services nearby would detract from a desire to move elsewhere for similar goods and services. However, all of the study area counties had large portions classified as FAR 4 (USDA ERS 2015b), which means places in these counties are well-removed from larger places, whether they are in counties adjacent to them or not. Differences between micropolitan-adjacent and micropolitan-nonadjacent counties did not emerge in analysis. A micropolitan influence was hinted at in the Hodgeman County focus group discussed in this chapter.

Rootedness in the very rural central Great Plains

Rootedness in this study was understood to refer to the varied conditions that contribute to an individual remaining in place. I associate rootedness with the pull factors of an area, or reasons to stay. An area also contains local push factors, which contribute to outmigration and the reasons an individual would make the decision to move away. The central question of this work was *what elements of place encourage an individual to stay in a very rural part of the central Great Plains when many others have moved away?* In other words, what are the place-specific pull factors at work in an area that appears to exhibit substantial push factors evidenced by decades of outmigration (and that must compete with related pull factors from other places,

including much larger settlements)? I asked this question in hopes of identifying aspects of place attachment that could be cultivated to encourage more individuals to stay, or to help attract newcomers to the region.

Countering outmigration does not have an easy answer or a simple fix; there is no panacea to offer. However, there are some answers with respect to the aspects of place in the very rural portions of the central Great Plains that contribute to the rootedness of the region's residents. The strongest factors are perceptual and/or emotional. Strongly rooted residents feel a sense of belonging where they live. McHugh and Mings (1996, 538) noted that attachment incorporates "a state of mind centered on a sense of belonging and security" and that in some places there are often underlying values that foster a sense of belonging. A feeling of belonging was the most statistically significant variable related to rootedness uncovered in questionnaire results. Focus group participants that seemed most rooted to their locales expressed strong sentiments of belonging, although the word itself seldom arose. It makes sense that an individual who feels rooted would also feel like she/he belongs. A sense of belonging implies that something is rightly placed in a specified location. In this case, individuals perceived themselves to be rightly placed in the Emptying Plains. To not belong would suggest that something is placed incorrectly, and a person who does not feel appropriately placed would be unlikely to exhibit a strong attachment to their surroundings.

A sense of strong community spirit is also a common thread of comments among those who are rooted in this region. The sense of community − an important aspect of social capital − incorporates a perception of togetherness among residents. People are motivated by the collective well-being of the community and look after each other when connected by a sense of community. As Burholt (2006) found, established relationships in a place provide a source of

emotional support that contributes to place attachment. Other variables related to social capital and a feeling of belonging like being involved and a feeling of being an insider were also related to rootedness. A strong community spirit manifested through participation in local events like county fairs, threshing bees, and school sports. People have raised funds for built or physical capital like a public swimming pool. Others raised funds for families in need, helped neighbors clean up after storms, cooked funeral dinners for the bereaved, or shared rides to one place or another. These are the actions of people involved in their communities, as are those who serve on various community boards, volunteer their time when called upon, and do things like try to incorporate newcomers into similar roles. In other words, these residents are community insiders. Raymond, Brown, and Weber (2010) had posited that social bonding and the emotional connections fostered contribute to an attachment to place, consistent with these findings.

Being an outsider has a negative connotation. Oftentimes these are people new to a community, but "newness" can mean a number of decades in a small town if there are no family roots in the area. From the perspective of an insider, the outsider label may suggest a person who is not involved with the community or invested in its collective health. However, from the perspective of an outsider, insiders may be associated with being exclusive (Respondent 88 used the term *cliquish*) or slow to accept others in the community. Outsiders typically do not feel rooted to their respective locales. Although uncommon, one could report a strong degree of rootedness despite not being accepted by other residents, but being an outsider is more likely to correlate with a lack of belonging and a lack of rootedness. Insiders typically feel rooted.

Variables associated with the social setting and relationships also affect the perception of activities available in the area. One cannot be involved if there is nothing with which to be involved. Rooted residents commonly remarked that their communities offered more things to

do than those who did not feel rooted. More things "to do" is quite subjective, but a person who perceives a fair number of possible activities in the community seems likely to also have a greater chance of finding things in which to take part. Taylor, Gottfredson, and Brower (1985) found a positive relationship between being involved in a place through activities like belonging to local groups and feeling rooted. By taking part in activities (e.g., gardening clubs, playing cards, spectating high school football games, coffee hour at the pharmacy, going to the local movie theater, volunteering at the county fair), a resident can construct more attachments to place, in some ways by being attached to the people of the place. At the same time, these actions are likely to be viewed by others as being involved and contributing to community spirit. Involvement by an individual contributes to strengthening bonds to place. A specific comment made during focus groups illustrates this idea:

> *I am going to throw you in this club and this club. You're coming to [the] historical society [meeting] with me, and you know, I just feel like if we can get a hold of people and get them involved in things we make them wanna stay* (Karen, Hodgeman County).

Economic aspects of place emerged in the results. Viewing the community as important in earning one's livelihood was another aspect of rootedness in the Emptying Plains. This perception is economic in scope, but it also shares social qualities such as community spirit and involvement in the context of patronizing a local business. Locals supporting an individual's business, like a restaurant or gas station, implies a reciprocal relationship to which both parties benefit. For a farmer or rancher, this could be interpreted to mean the local community is important in earning a livelihood if providing goods locally. It could also suggest that the labor of others in their operation was critical to success. There was an aspect rootedness related to the perceived ease of purchases, which is partly economic but also related to the number of things to

do, assuming shopping is a thing "to do." Park and Coppack (1994) identified commercial attributes like recreational shopping and support activities to be a part of a place's rural sentiment to which individuals attach themselves. If there are more options for residents to make purchases of the needed items in their community, it is likely to translate into a perception of more things to do, and more things to do influences rootedness. Ergo, finding it easier to procure needed items locally is likely to contribute to rootedness as well. A resident who must travel outside of town to make purchases will likely feel like there is less to do in their community and report that getting what they need in town is harder, both of which are variables that decrease rootedness overall.

Time in residence plays a role in rootedness, as well. Cross-tabulation suggests that as the age of the respondent increases, so does the proportion of respondents indicating rootedness. Family roots, or in other words, a historical aspect to place, was closely associated with being rooted. Those with a family history in the area or nearby were more likely to report higher levels of rootedness. Respondents spoke positively about grandparents and great-grandparents who had homesteaded in the area. Some discussed their pride in having the opportunity to pass on the land, to which they are strongly attached, to their children. Others lamented that there was no one to take over the family farm on their passing. This is consistent with other researchers' findings: Rubenstein and Parmelee's (1992) work revealed that life experiences can have an affective bond with a place, and Fischer et al. (2000) found that accumulated place-specific insider advantages over time contribute to rootedness. Family ties to the land and their effect on rootedness are logical. The longer a family has been in these places, the longer their involvement with the collective well-being of the area. Homesteading itself is, in a sense, a commitment to place. There is a history of being attached: families chose to put roots down

here, they persevered, they had children who then also became engaged with the area, and in each generation that chose to remain, the deeper the roots of attachment became. There is a legacy of attachment. For those without family roots, the length of time in place was a factor. The longer an individual has lived in the area, the more likely they are to also have a sense of belonging, which in turn, contributes to one's overall level of rootedness. Time in place affecting rootedness is likely due to the possibility that the longer someone has been in place, the more opportunity they have had to become involved and participate in activities that enrich community spirit, form social bonds and become insiders, or begin putting down historical roots of their own by raising a new generation of family members in place.

The last set of factors contributing to rootedness are related to the natural landscape. Relph (1976) identified the local natural surroundings as a component of one's place and Hummon's (1992) definition of place includes the natural environment and our conscious feelings regarding it. In the literature regarding place attachment, the natural landscape tends to matter to all residents whether they had been there their entire lives or were brand new to the area (Brehm, Eisenhauer, and Krannich 2006). Burholt (2006) found the aesthetic qualities of the environment to have an effect on an individual's attachment to place. Rooted residents in this study tended to have positive evaluations of their surroundings and considered the visual appearance of their communities to be aesthetically pleasing. The emotional connection with the physical environment or people-place bonding is what Tuan (1974) referred to as topophilia. In the Emptying Plains, these positive emotional and perceptual connections with the natural environment include a love for the open spaces afforded by the rural landscape. Respondents remarked positively about the quiet, cited the rolling thunder of storms in the spring, and discussed the beauty of sunsets where they live. People also interacted with these places in many

ways similar to activities that would be found in other areas. Some hunt or fish, others take walks, golf, ride horses, or simply go for a cruise in the countryside with their automobiles. Perhaps this relationship with the physical aspects of place is not that different than the social aspects of place when considering the nurturing of rootedness. The more individuals are engaged with the physical geography of a place, the more likely they are to cultivate attachments to it. As an individual's attachment to place is strengthened so too are the perceptions of the physical landscape's aesthetic qualities or degree of importance. The Emptying Plains are dependent on primary economic activities like farming, ranching, and oil production. In some areas, people are beginning to harvest the power of the wind. This dependency on primary activities also implies a strong tradition of residents being directly engaged with the physical nature of place, increasing understanding and hence attachment.

Rooted or stuck?

Just because someone is in a place does not mean that they are attached to it (Tuan 1974). While Erickson, Call, and Brown (2012) did not find older residents in rural Utah communities to indicate a sense of being stuck in place, they did note that being stuck is a possible reason for remaining in an isolated rural community because a resident simply has few options and cannot leave. I asked if residents in the Emptying Plains were attached to where they live, or if they were stuck in it. There is an indication that both scenarios are plausible in the study area, but there were no explicit indications of *why* an individual may be unable to leave that surfaced in the results. Some survey respondents did indicate they live where they do in order to take care of family members (typically elders), but there was not an outright indication of feeling stuck. However, some of these respondents did only *disagree somewhat* or *neither agree or disagree* to the statement *I am stuck* here. Overall, more than one in six respondents indicated that they are

stuck in place somewhat or completely. The stuck tended to not provide responses that were similar to those reporting high levels of rootedness. They were unlikely to indicate that living where they do provides a good feeling. The stuck also indicated that they did not have a strong sense of belonging to where they lived. Those that are stuck often perceive themselves to be outsiders in addition to having a lower evaluation of the community spirit and amount of things to do in the area. In addition, an area's nearby surroundings and natural amenities were usually evaluated poorly by those who are stuck. It would make sense that someone feeling stuck in place is unlikely to have as many positive feelings regarding a place as someone rooted to it. Being stuck does not have a positive connotation. It implies that an individual does not belong where they are. I do not recall anyone saying that they were "stuck" somewhere positive or in an area they desired. Negative evaluations of an area by someone stuck are not likely to give way to feelings of opportunity when it comes to things to do, or promote involvement in the community. In other words, feeing stuck suppresses the perceptions and evaluations of place that encourage rootedness.

No one in the focus groups indicated that they were stuck, but then again, a stuck individual is not prone to being involved. Therefore, someone stuck would be unlikely to participate in a group discussion about their community. There were a few questionnaire respondents that indicated they were stuck *and* they were rooted. Perhaps this is attributed to the interpretation of the word "stuck" to mean not moving, as opposed to a desire to be elsewhere yet unable to leave. In other words, a respondent could possibly take the word to imply *adhered to*. In that sense, stuck and rooted might be considered very similar. Another possibility could be attributed to a satisficing behavior and marking options in the affirmative across the board.

Micropolitan influence

Based upon the equal selection of counties that were adjacent to a micropolitan statistical area (mSA) and those that were not, I was interested in whether proximity to a growth pole had an effect on rootedness. Ghelfi and Parker (1997) found that nonmetropolitan counties adjacent to metropolitan statistical areas (MSAs) tended to experience positive population change, while counties not MSA-adjacent did not fare as well, in particular, those nonadjacent counties lacking a larger settlement (2,500 or greater). In the USDA ERS (2013) Urban Influence Codes, the least-connected counties are those designated Code 12: not part of a core-based statistical area (CBSA) that is not adjacent to a metropolitan or micropolitan area, and does not contain a town of at least 2,500 residents. Statistically, both correlation analysis and cross tabulation failed to indicate that an Emptying Plains county being adjacent to an mSA had a relationship with the rootedness of its residents. This could be due to the conceptualization of the Emptying Plains itself, which incorporated the idea of extreme remoteness. Every county classified in the Emptying Plains included the most restrictive USDA ERS (2015b) Frontier and Remote designation, FAR 4. FAR codes were developed based on travel times to larger population centers; if all counties exhibit FAR 4 characteristics (at least in part), there is still a geographic separation from those growth poles even if they are contained in neighboring counties.

The only possible differences with mSA-adjacent counties that emerged was in the context of responses made by focus group participants. In particular, participants in mSA-adjacent Hodgeman County did not mention primary economic activities as often as the participants in Jewell County and Hooker County. More responses with respect to economic activity were related to the tertiary sector, which could be an indication of linkages to the larger neighboring centers of Dodge City and Garden City. However, focus groups do not lend

themselves to generalizability, and a participant from Hodgeman County was in a leadership role associated with the economic development of the county, so I am hesitant to make that claim. There was one other instance from Hodgeman County relative to the influence of adjacent micropolitan counties. This was a statement made by Lewis who suggested that very rural towns lacking larger communities nearby were more likely to be supported by local residents:

> *Jetmore [Hodgeman County seat] people want to shop more outside of town it seems like, and Hanston [Hodgeman County community 10 miles east of Jetmore with about 200] people – they will support locally. I can almost bet if someone from Hanston were to get that [closed] dairy bar [in Jetmore], they would get a lot of support from Hanston, maybe not so much from Jetmore. I don't know why. I see the people in Hanston in a more rural setting, and so they don't mind going a little farther to do stuff, but they more strongly support it [local businesses] because they don't want to have to go to Larned [35 miles east of Hanston] or farther away if they can keep it in Hanston or Jetmore. But then the Jetmore people – Dodge City [30 miles south of Jetmore] is kind of a curse. I mean, it's nice that we have it close that you can do your professional services over there, but it's a hindrance to some [local] businesses because they [the Jetmore residents] won't support the stuff here because they know they can go to Dodge City* (Lewis, Hodgeman County).

The proximity of an mSA may have some influence on the consumer behavior of a resident in the Emptying Plains, but without more examples it is difficult to make a strong claim about this, or assert that it affects the rootedness of its residents nearby. Rootedness is associated with being involved in the community, and involvement can be argued to include patronizing local businesses. There may be a loose tie-in to community spirit as well. Lewis did not understand the lack of support that Jetmore residents exhibit in their community, and in a sense was making a remark regarding the community spirit of the town. If an mSA motivates a resident in the Emptying Plains to decrease their involvement with the community, which also contributes to the perception of a weaker community spirit, then there is a possibility that the

level of rootedness could be weakened in the process. However, I am very cautious to make this assertion without more corroborating evidence.

Community health and survival

The communities within the Emptying Plains are not going to disappear from the landscape anytime soon, but their population's continued downward trajectory undermines their viability overall. As communities shrink, services will continue to consolidate or be eliminated, and the push factors present in these areas will likely grow stronger and influence more individuals to move away in a troublesome negative feedback loop. As mentioned above, there is no easy fix. Further, there may not even *be* a fix in some of these places. However, some results from the study point to strategies which could contribute to the well-being of these places.

A big concern in the Emptying Plains was the need for more vocational labor. Focus group participants expressed frustration with an inability to obtain services from within the county. Whether carpenters to help repair storm damages, electricians to rewire older Sandhills ranches, HVAC needs, or plumbing work, it is difficult to find service providers. There is a definite need in these communities for people that could perform these types of services, and there was a desire for the labor to come from residents within the county and not from outside. These needs seem compromised by a perceived pedagogical approach in the schools of these areas:

> *I go back to that old Superintendent [who said] "are we educating these kids to leave?" Now, I don't know what you're supposed to do about your educational system, but that's – that was his words, and he didn't just say it once* (Lou, Hooker County).

> *I keep going back to this idea of the school. Do you think the school has – because I'm out of it now for quite a while – are they encouraging more local attraction, or encouraging – it's just like,*

> *we taught vocations when we were in school here* (Ethel, Hooker County).
>
> *Children of the pioneers, especially the grand-children of the early people, there was a huge pull for them for their children to be educated. So, in order to be educated, once you have passed [the] high school level, of course you had to go off someplace. And that's been one of the rural communities' thing, we do lots of things to help kids to go away to college and maybe in time some of that will have to be directed back. Instead of we are going to give you scholarship money to pay tuition, we will give you money to pay your loans but do come back. You know reverse that a little bit* (Janet, Jewell County).

This institutional fast-tracking out of the community was a central argument from Carr and Kefalas (2009). It was found that educators focused more on the students who were likely to leave the community than those who would stay and apply their efforts locally. If this is so, and it appears that in the Emptying Plains the phenomenon is similar, a potential strategy would be a pedagogical shift. A movement towards encouraging students to ply their efforts in their own communities instead of elsewhere could curb some of the brain drain affecting these places. Janet's comment about the historical pattern of rural communities encouraging their best and brightest to go elsewhere suggests a shift in pedagogy is difficult, but it certainly does not seem outside the realm of possibility:

> *I am back teaching at the high school this year. I try to promote to my students why they should move back to Mankato. Even when we are giving examples in the middle of Ag Business class, I will be like "give me a local example of an entrepreneur – I don't want to hear anything about Koch industries or anything – tell me a local example, and you know, you guys can do that too." And [I say to] my shop kids "guys, we are always looking for welders and electricians; move back, Mankato is such a friendly environment to be in"* (Karen, Jewell County).

Another strategy is to get at the factors that influence a resident to feel stuck. If communities can find ways to encourage more participation and get more involved, there is an

opportunity to foster a healthier community spirit, mitigate feelings of being an outsider, and allow attachments to place to develop. By being proactive in identifying people who might have a higher likelihood of feeling stuck (fewer years in place, an absence of historical family roots, less involved) and trying to reverse their perceptions through inclusive community events and activities, there may be a way to encourage rootedness in those who do not feel rooted. In doing so, the more times these communities can encourage new roots to be put down, or nurture the roots to grow deeper, the fewer times these communities are likely see people leave.

Summary

The elements of place that encourage an individual to stay in a very rural part of the Central Great Plains are a sense of belonging, feeling good about living in a very rural area, feeling like an insider, positive evaluations of the community spirit, being involved with the community, perceiving a greater number of things to do in the community, finding it easier to purchase the things one needs within the community, feeling like the community was important in earning a livelihood, positive evaluations of the visual appearance of town as well as the outdoor amenities and nearby surroundings of the natural landscape, and time in place – particularly the presence of historical family roots. It has to be mentioned that these are relationships, not a one-directional cause and effect between rootedness and the other variables. The direction tends to be positive, but this is not an absolute. Respondents, for example, can have very high levels of attachment yet feel like an outsider, or have very low levels of attachment but have family roots that go back more than a century. These are uncommon characteristics, but they are not impossible.

When it comes to conceptual models of place attachment, the lack of a unifying model speaks to the complexity of the phenomenon, but there are good operational models in the

scholarship whether or not they are exhaustive. In particular, Scannell and Gifford's (2010) tripartite model of place attachment (Figure 2.2) is helpful to frame the results of this research. The model posits that place attachment is composed of three themes: person, place, and process. Aspects under the umbrella of the "person" component includes cultural and individual aspects of a person such as milestones reached, historical aspects of an individual, the experiences had, and the realizations made (Scannell and Gifford 2010). This can be interpreted to include putting down family roots, a perception of safety, and the length of time that an individual has lived in place. The components of "place" under the tripartite model incorporate both social and physical aspects of place (Scannell and Gifford 2010). Positive evaluations of the nearby surroundings whether natural or built, feeling that the natural amenities nearby are important, community involvement, and positive social capital can all be placed within this category. Finally, "process" contributing to place attachment includes affect, cognition, and behavioral aspects such as meanings tied to place, memories, and emotional components (Scannell and Gifford 2010). With respect to research results, these notions of process can include a sense of belonging, feeling good about living in a very rural portion of the Great Plains, and perceiving oneself as an insider. The tripartite model is very useful in the scope of this research, but the boundaries between person, place, and process are not completely distinct . There seems to be a good amount of overlap among these concepts. For instance, individual aspects like experiences, which falls under the *person* component, arguably overlaps with *process* and its cognitive elements like memory and meaning. Further, statistical analysis suggests a respondent's sense of belonging, which would be classified under *process* is strongly related with components of *person* like the length of time in place and historical family roots.

With respect to being stuck in place, these relationships tend to be negative. Most in the very rural portions of the Central Great Plains do not feel like they are stuck in place. However, a minority of residents do feel stuck. Feeling stuck is closely associated with not feeling good about living in a very rural area, a sense that you do not belong, low reported levels of rootedness, feeling like an outsider, negative evaluations of the community spirit, a sense that there is not much to do in the community, a lack of involvement, and a negative evaluation of the visual appearance of town, the nearby outdoor amenities.

The answer to whether or not a rural county's proximity to a growth pole has an effect on the rootedness of the residents is inconclusive. Correlation analysis and cross-tabulations did not yield any significant evidence that being adjacent to a micropolitan statistical area has a bearing on rootedness. Focus group work in mSA-adjacent Hodgeman County did hint that there may be something to this relationship however. During the focus group, it was suggested that residents in the county seat of Jetmore were less likely to support local business in town compared to residents in the more rural community of Hanston. Jetmore residents were more likely to travel out of the county to do their shopping in larger population centers like Garden City.

Given the amount of data generated in this study, exploring the results of this work is far from complete. There are other threads of information that are worthy of discussion in the future. Some of these are described in the concluding chapter as topics for further research and analysis.

Along the way, there were a few surprises uncovered in the research. I think the biggest unexpected result was the pronounced regional place identity of both the survey respondents of Hooker and Thomas County, Nebraska, and the focus group participants in Mullen. In the other counties that were randomly-selected, people commonly referred to their surroundings by the

name of their town or county. In Hooker and Thomas County, people often referred to the Sandhills instead of their community or county. This was not the case for participants in the Smoky Hills or High Plains. Some survey respondents did refer to Western Kansas or the state of Kansas or Nebraska, but Sandhills respondents seemed unique.

This pronounced attachment approaches what Mazumdar and Mazumdar (1993) referred to as sacred space, to the natural landscape in this case. There are also sacred cities and buildings to which this form of place attachment applies. While the Nebraska Sandhills are not religiously significant as somewhere like the Ganges River when it comes to sacred natural landscapes, they do command a certain reverence by those that inhabit them. Hooker County focus group participant Brynn touched on this idea of sacred space in the Sandhills where the abstract idea of finding purpose in life seems more tangible than in other central Great Plains subregions (see page 133). This sacred space aspect also incorporates religiousness and emotional connectedness to space (Mazumdar and Mazumdar 1993). In the results of this study, I did not expect as many references to Christianity, church, faith, and God as were evident. Many survey respondents expressed positive sentiments that their community was Christian, others were active in their respective churches. Faith is an important component in many individuals' lives; however, for a mailed questionnaire that did not inquire about spirituality, a lot of it surfaced in the responses.

A final point that should be noted is the selective process of outmigration. Decades of individuals leaving the study area means that remaining residents may differentially be likely to feel rooted to where they live. This pattern could have produced some bias in the survey and helps account for a higher average reported level of attachment in the results of the questionnaire. It also could have contributed to very good returns on the mailed questionnaire.

Potential respondents invested in the survival of their communities would likely have a greater interest in the research topic and would therefore be more likely to respond. A potential bias toward the most interested residents is not undesirable when the target individual is someone who has made the decision to remain in a very rural portion of this section of the Great Plains. That said, there were respondents who had low levels of attachment or felt stuck in place, although the same cannot be said for focus group participants. Focus groups are not generalizable, but they were highly unlikely to recruit participants that weren't invested in the well-being of their communities.

Chapter 7 - Summary and Conclusions

Summary

The Great Plains is a region facing many challenges. The population of the American Great Plains has grown steadily, but the growth has not been uniform. Large portions of the interior Great Plains have been experiencing decades of outmigration. Urban centers that are mostly peripheral continue to grow. Since 1950, the population of the Great Plains has nearly doubled to approximately ten million residents. The region is certainly not in a freefall with respect to population loss, but significant interior portions face challenges due to people moving away. Some geographers and rural sociologists have devoted significant effort to the relationship between rural population loss and service consolidation (Brown and Schafft 2011, Carr and Kefalas 2009, McGranahan and Beale 2002), others have focused on elucidating the reasons people make the decision to go (Hudson 1973, Haas 1990, Wood 2008, Woods 2005), some focus on the population characteristics of the people who choose to move away (Carr and Kefalas 2009), and scholarly research has explored varied strategies to encourage people to move in (Lu and Jacobs 2013, Lu 2011, Lu and Paull 2007). The vantage point of the residents who remain in emptying spaces has received little attention, however.

This research used grounded theory to employ a sequential mixed method approach for the purpose of uncovering the aspects of place that contribute to an individual's rootedness in the most rural and depopulating portions of the central Great Plains. The first half of the study mailed 1,000 questionnaires to randomly-sampled households in ten counties of the central Great Plains of Kansas and Nebraska. Counties were selected on the most rural designations attributed by the USDA's Economic Research Service. After data collection from the mailed questionnaire was complete, focus groups were conducted in the county seats of three of counties utilized in

the mailed survey. These counties were selected to include a county that had lost the greatest percentage of its population (-57.4%) between 1960 and 2010 (Jewell County, Kansas), one that is adjacent to two mSA counties (Hodgeman County, Kansas), and one that exhibited a very strong regional identity compared to other portions of the study area (Hooker County, Nebraska).

Correlation analysis (using Spearman's rank order coefficient) and contingency analysis (using the chi-square test) tested relationships among closed-ended questionnaire responses for statistical significance. Open-ended responses coded in *NVivo* provided depth to the closed-ended material. Results of the focus groups provided rich qualitative data that triangulated with quantitative results and offered a contextualized view of what aspects of place encourage rootedness.

The elements of place encouraging rootedness were similar between the responses on the mailed questionnaire and those from the participants in the three focus groups. Rootedness was most associated with a sense of belonging, which itself is related to the length of time a resident has stayed in the area, as well as nearby family roots. Rooted respondents also indicated that they felt good about where they live. In addition, many rooted individuals perceive themselves to be insiders in the community and view community spirit to be strong. Questionnaire results suggest that being involved with the community had a positive relationship with levels of rootedness. Rooted respondents were also more likely to perceive the visual appearance of their nearby surroundings favorably. A significant concern that emerged while conducting focus groups was the need for more vocational services within the focal study counties. A lack of trained individuals to fulfill local service needs was seen as a reflection of institutional fast-tracking of students out of the area combined with a lack of support for motivating young people to apply their skills locally. This pedagogical concern was discussed in the work of Carr and

Kefalas (2009), wherein the principal of a high school in Iowa expressed concern that those students with the greatest potential to achieve professionally were given the most attention by teachers in the classroom. These same students were also the most likely to leave their rural climes and were not likely to return. In the study area counties, results indicate similar educational approaches.

Counties in the central Great Plains are not circling the metaphorical drain, but the continued trend of population decline undermines their viability over the long term. Promoting strategies that stem the tide of population loss in this region is prudent. The results of this study suggest a shift in local school pedagogy that encourages younger people to remain in the community would be beneficial. Creating community activities that are more inclusive and targeted at individuals who may feel like they are outsiders or do not belong is a potential strategy to strengthen attachment to place. While there is no simple fix, actions that promote the growth of new roots, or nurtures roots to grow deeper than they currently are, have the potential to aid in the curbing of outmigration.

This work contributes to multiple spheres of research. It adds to the body of place attachment research by exploring the varied aspects of place that aid in facilitating the attachment individuals have in very isolated places where the push factors seem to outweigh the pull. The validity of the research instrument enables others to conduct similar place attachment studies in other places as well. This work also contributes to rural geography scholarship by identifying strategies to keep small places experiencing outmigration viable. In addition, the research (along with much of rural geography scholarship) is counter to what Thomas and others (2013) refer to as *urbanormativity*, which is a rural theory that posits the majority of people view urban spaces and activities as normal, while rural spaces and the activities therein are abnormal.

Population geography and migration studies are enriched by this work with its contribution to using place attachment as a lens of inquiry to better-understand what helps keep an individual rooted in a region that has experienced decades of outmigration. The regional geography tradition Hart (1982) supported is honored, as well, as this study is framed within the context of the Great Plains.

Research limitations and recommended adjustments

There are some aspects of the research that I would do differently given the benefit of hindsight. When it comes to the survey, I regret neglecting to include a question about educational attainment. Exploring relationships between educational levels and rootedness as well as other variables is a missed opportunity.

While recruiting participants for the questionnaire pilot conducted in Mankato, Kansas, I discovered the importance of a researcher's attire in the field. My shorts and sandals made the 100° heat more tolerable, but while specifically recruiting farmers at a local meeting place in town, I am confident that jeans and shoes would have been better-received based on the looks I was given (and the absence of such glances at the Jewell County Historical Society during the few days I was there with the available pilot questionnaire, wearing more locally-appropriate clothing).

Finally, the need for key insiders cannot be overstated. While recruiting focus group participants, I drove to each of the three selected counties about six weeks ahead of the time to post 11" x 17" color posters around the county (Appendix H). Approximately 35 posters were placed in the counties in locations like city halls, retirement communities, libraries, post offices, banks, grocery stores, farm co-ops, and beauty salons. I fielded zero inquiries during the recruitment phase based upon an individual seeing the poster. One woman from Jewell County

phoned me after the focus group had been conducted, and she only inquired why I was there doing the research. If not for the help of community insiders like university extension agents, economic development directors, and curators of county historical societies, it would have been impossible to conduct focus groups at all. Had I focused all of my energy on cultivating those relationships for snowball sampling instead of also employing convenience sampling through the unsuccessful use of advertisement posters, there is a chance more participants could have been recruited. While the timing of conducting the focus groups themselves is not something I would necessarily do differently, having a better idea of the schedule of high school events like football games would have made for less difficulty in coordinating a good date for the groups to meet.

The sheer amount of data that was generated in this study cannot be fully described and analyzed in this dissertation alone. There was no way to discuss all of the aspects of the research while maintaining a coherent thread throughout the chapters. Qualitative research is incredibly rewarding in the rich, descriptive context that it warrants, but it can be overwhelming in scope. Conversely, amassing a dataset of more than 400 questionnaire returns gave me a great insight into the varied perceptions and evaluations of place, but the wealth of that data has not been fully realized yet. To wit, there are a few considerations for future research.

Future Research

Given the amount of data generated by the survey, an initial suggestion for future research is to explore the data further and with more sophisticated data analysis. One such technique is ordered logit regression due to the ordinal nature of the survey data (Lu 1999) to develop a better understanding of how variables associate with attachment through causal relationships. For instance, results indicate there is a positive relationship between reported levels of attachment and the length of time an individual has spent in a place, and through

regression techniques like ordered logit, the causal relationship between the two can be investigated quantitatively. Other portions of the results that can be investigated further include the effects of social connections outside of the region. One question in the mailed questionnaire asked potential respondents where they had moved from if they had been in the selected counties less than 10 years. This information may be explored further to see if an effect on the rootedness of those residents can be identified whether through the survey results alone, or in combination with follow-up focus groups targeting this cohort.

Another direction that could be taken with this research is the aspects of place in these very rural areas of the central Great Plains that contribute to outmigration. Arguably, a topic such as this is not upbeat, but it would provide a nice counterpoint to the results of this study. The research reported here was about the aspects of place that encourage rootedness, but data collected could be examined from a different angle. This was not the focus of my study, and other researchers have produced scholarly work that has addressed the reasons to leave, but it could be beneficial to connect the push-and-pull of place in the Great Plains.

Comparative studies of attachment in other depopulating regions across the country could explore common threads of attachment at a greater scale while also identifying regional differences. With my career trajectory taking me to Western Maryland and established contacts with other rural scholars, rural spaces could include Appalachia, Vermont, North Dakota, or isolated communities in coastal Washington as well as North Carolina's Outer Banks. In addition, there is no reason why my attachment studies need to be constrained to rural places. Investigating aspects of place in depopulating postindustrial urban spaces that encourage rootedness could be conducted in the Rustbelt or other areas.

Further research in the Nebraska Sandhills would be fruitful. The regional place identity that surfaced in this work has the potential to yield very interesting studies. Whether investigating the place identity embedded in the built landscape, Sandhills art, the Sandhills as 'sacred space,' or the representation of the Sandhills in advertisements to those outside of the area, potential research opportunities in the realm of place studies is robust. One barrier to exploring the Sandhills more could be the residents that inhabit them. Individuals that participated in the focus group in Mullen came across as very protective of their region during the focus group discussion. There was a definite desire to keep the Sandhills relatively unknown.

Finally, another future research opportunity would be more focused investigation of growth poles and there effects on rootedness and behaviors of residents. Focus group work uncovered the perception by some that a small community closer to an mSA has an effect on supporting local business. In particular, it was suggested that residents in small communities closer to growth poles were less likely to support local businesses in their own communities, and instead, they tend to patronize the businesses in the growth poles. A lack of generalizability from focus groups in combination with no statistical evidence regarding this relationship stymied efforts to explore it further. This does not mean that no relationship exists; it merely suggests that more data should be gathered before coming to a conclusion with any degree of certainty. Reexamining data already collected and future focus group work in other counties adjacent to micropolitan statistical areas in the Emptying Plains has the potential to uncover interesting results.

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Appendix A - Mailed Questionnaire

Experience of place in the rural counties of the Central Great Plains

Participation in this study is completely voluntary. Your answers are confidential and will not be reported in a way that can identify you personally unless you indicate a desire to have specific responses identified with your name. You may freely withdraw from this study at any time without repercussions. There are no known or anticipated risks associated with participating in this study. By returning this survey form you are consenting to the inclusion of your answers in this study.

KANSAS STATE UNIVERSITY

This research explores experiences of living in small towns of the central Great Plains. The survey should take no more than 20 minutes to complete. Questions about "your community" refer to your town of residence and its nearby surroundings. It does not refer to all of your county. You'll be asked for your own view of how far something can be in order for it to be considered "nearby" at the end of the questionnaire. You may skip questions you don't want to answer, and you are welcome to write extra comments in the front and back inside covers or open space beside any question.

Thank you for sharing your input.

Q1. How would you evaluate the visual appearance of your community?

- ☐ Very attractive
- ☐ Somewhat attractive
- ☐ Average appearance
- ☐ Not very attractive
- ☐ Not attractive at all

Q2. When you think about the visual appearance of your community, what are 3 words or phrases that come to mind?

Q3. Overall, how would you evaluate your community's nearby surroundings?

- ☐ Very good
- ☐ Good
- ☐ Acceptable
- ☐ Poor
- ☐ Very poor

Q4. When you think about your area's outdoor amenities (such as lakes, parks, scenery, etc.), would you describe them as:

- ☐ Very desirable
- ☐ Somewhat desirable
- ☐ Neither desirable or undesirable
- ☐ Somewhat undesirable
- ☐ Very undesirable

Q5. How easy or difficult is it to purchase the things you need in your community?

- ☐ Very easy
- ☐ Somewhat easy
- ☐ Neither easy or difficult
- ☐ Somewhat difficult
- ☐ Very difficult

Q6. What is the **minimum** number of miles you can travel (one-way) to purchase the majority of your grocery items?

Q7. How safe or unsafe do you feel in your community?

- ☐ Very safe
- ☐ Somewhat safe
- ☐ Neither safe or unsafe
- ☐ Somewhat unsafe
- ☐ Very unsafe

Q8. How important is the local natural environment to you?

- ☐ Very important
- ☐ Somewhat important
- ☐ Neither important or unimportant
- ☐ Somewhat unimportant
- ☐ Very unimportant

Q9. Are there activities you enjoy doing here? If so, please name a few. They may be indoor or outdoor activities.

Q10. In a typical week, how many of your days include spending time with friends and/or family that live nearby?

- ☐ Every day
- ☐ At least five days, but not every day
- ☐ Three or four days
- ☐ One or two days
- ☐ No days

Q11. How helpful or unhelpful are people in your community?

- Very helpful
- Somewhat helpful
- Neither helpful or unhelpful
- Somewhat unhelpful
- Very unhelpful

Q12. Are there examples of how people help each other here? If so, please list a few.

- Not applicable

Q13. If you have lived here around 10 years or more, have you noticed any changes? If so, what kind of changes have occurred in your community (physical, social, etc.)?

- Not applicable

Q14. If you have lived here around 10 years or more, what about your community has remained the same over time (physical, social, etc.)?

- Not applicable

Q15. If applicable, what was the earliest year/decade that a member of your family (such as a great-grandparent) began living here or nearby?

- Not applicable

Q16. Do you agree or disagree with this statement: Living here makes me feel good.

- Completely agree
- Agree
- Neither agree or disagree
- Disagree
- Completely disagree

Q17. On a scale of 1 to 10, how rooted/attached do you feel to where you live? **1** means you feel absolutely no attachment and would rather live almost anywhere else. **10** means you feel completely rooted and would never consider living elsewhere.

Q18. Do you agree or disagree with this statement: I am stuck here.

- Completely agree
- Agree
- Neither agree or disagree
- Disagree
- Completely disagree

Q19. How much or how little is there for you to do in your community and nearby?

- A great many number of things to do
- Many things to do
- Some things to do
- Not many things to do
- Nothing to do

Q20. How involved are you with your town?

- Very involved
- Somewhat involved
- Neither involved or uninvolved
- Somewhat uninvolved
- Very uninvolved

Q21. Are there things you do to feel involved here? If so, please name a few.

Q22. How much of an insider or outsider do you feel like here?

- [ ] Complete insider
- [ ] Somewhat of an insider
- [ ] Neither an insider or outsider
- [ ] Somewhat of an outsider
- [ ] Complete outsider

Q23. Do you agree or disagree with this statement: Community spirit is strong here.

- [ ] Completely agree
- [ ] Agree
- [ ] Neither agree or disagree
- [ ] Disagree
- [ ] Completely disagree

Q24. Do you agree or disagree with this statement: This is where I belong.

- [ ] Completely agree
- [ ] Agree
- [ ] Neither agree or disagree
- [ ] Disagree
- [ ] Completely disagree

Q25. What does your community mean to you?

Q26. How important has this community been in earning your livelihood?

- [ ] Very important
- [ ] Important
- [ ] Neither important or unimportant
- [ ] Unimportant
- [ ] Very unimportant

Q27. If applicable, how has this community enabled you to earn a living?

- [ ] Not applicable

Q28. What sort of work do you do? (If retired, what sort of work did you do?)

Q29. What state do you live in?

- ☐ Kansas
- ☐ Nebraska

Q30. What county do you live in?

Q31. What town do you live in or near?

Q32. Did you live in this community 10 years ago?

- ☐ Yes, this house/apartment
- ☐ Yes, different house/apartment
- ☐ No, different town → Please name: (town, state)

Q33. If you lived in a different town 10 years ago, why did you move here?

- ☐ Not applicable

Q34. What is your current employment status?

- ☐ Employed full time (30+ hours per week)
- ☐ Employed part-time
- ☐ Homemaker
- ☐ Unemployed, seeking work
- ☐ Unemployed, not seeking work
- ☐ Retired

Q35. What is the total number of years you have lived here?

Q36. Do you own or rent your current residence?

- Own
- Rent

Q37. What is the maximum number of miles you could travel away from here but would still consider "nearby?"

Q38. In what year were you born?

Q39. What is your gender?

- Female
- Male

Q40. What is your ethnicity?

- White
- Black
- Hispanic
- Asian
- Native American
- More than one ethnicity

Q41. What is your marital status?

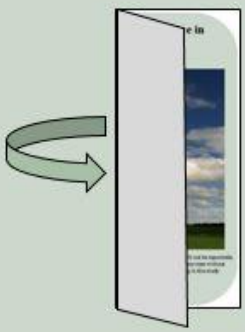
- Single
- Married
- Divorced or Separated
- Widowed
- Domestic partner

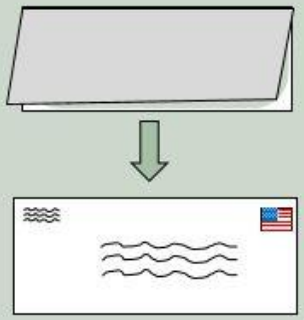
Q42. What is your annual household income?

- $80,000 or above
- $60,000 to $79,999
- $40,000 to $59,999
- $20,000 to $39,999
- Under $20,000

Q43. Are there any additional comments you would like to make?

This is the end of the questionnaire. Thank you very much for your time and input in this study. To return your questionnaire, please fold it in half as shown and place it in the included self-addressed stamped envelope for your local mail carrier. Contact information can be located on the back of this questionnaire.





If you have any questions about this study or require further information, please contact William Wetherholt (insitu@ksu.edu or 701-330-1782) or Dr. Lisa Harrington (lbutlerh@ksu.edu or 785-532-341); either may be reached by mail at the Department of Geography, Seaton Hall; Kansas State University; Manhattan, KS 66506-2904. This study has been reviewed and approved by the Institutional Review Board at Kansas State University [file #7261]. If you have any comments or concerns about your rights as a research participant, please contact the University Research Compliance Office at 785-532-3224.

GEOGRAPHY
Kansas State University

Appendix B - Informational Letter Enclosed in First Mailing

The experience of place in the rural counties of the Central Great Plains

KANSAS STATE UNIVERSITY

Dear Central Plains resident:

You have been randomly-selected to participate in a survey about life in the rural Great Plains of Kansas and Nebraska. Participation is voluntary: you may refuse to participate, you may refuse to answer any particular questions you do not wish to answer, and you may stop participating at any time. This survey strives to better understand different local characteristics (personal, social, historical, environmental, and economic) that encourage residents to remain in places that have been experiencing the challenges that come with population change.

This survey should take no more than 20 minutes to complete. It consists of questions about different aspects of your local community: social networks, the natural environment, historical aspects, and so forth. By returning this survey, you are consenting to the inclusion of your answers in this study. All of your responses are confidential and will be shared only between the student conducting the research and his advisor. We will not identify you in any report or presentation from this research, unless you notify us by writing a note on or with your returned survey if you do wish to have specific responses identified as your own.

Project Description

This study is being conducted by Bill Wetherholt, a graduate student in the Department of Geography at Kansas State University, as partial fulfillment of the requirements for a doctoral degree. The study contributes to understanding the varied aspects of place (personal, social, historical, environmental, and economic) that encourage residents to remain in places that have been experiencing decades of population loss. Results may contribute to generating a framework for improving the outcome of rural sustainability initiatives nearby and afar.

Research in the Great Plains is critical to regional well-being; some counties have lost more than half of their overall population in the past 50 years. This research will contribute to a more intimate understanding of how individuals in very rural places see their communities. Results of the study will be published, and presented at academic conferences.

Questions or Feedback

If you have questions about this study, please contact Bill Wetherholt, 701-330-1782 (insitu@ksu.edu), or Dr. Lisa Harrington, 785-532-3410 (lbutler h@ksu.edu), Department of Geography, Seaton Hall; Kansas State University; Manhattan, KS 66506-2904. If you would like a summary of the results of this study, let one of us know and we will provide a summary when the study is completed.

If you have concerns or complaints about this project, please report them to the Chair of Kansas State University's Internal Review Board, Rick Scheidt, 785-532-1483 (rscheidt@ksu.edu), or to the University Research Compliance Office at 785-532-3224 (comply@ksu.edu).

Bill Wetherholt
PhD Candidate
Kansas State University

Appendix C - Follow-up Postcard Message

You should have recently received a questionnaire seeking your opinions about living in a rural area. Your name was drawn randomly from a list of households in your county for this survey.

If you have already completed and returned the questionnaire, please accept our sincere thanks. If not, please do so as soon as it is convenient.

If you did not receive a questionnaire, or if it was misplaced, please call me at (701) 330-1782 or send an email to insitu@ksu.edu and we will get another copy in the mail to you right away.

Sincerely,

Bill Wetherholt, Graduate Student Researcher
Department of Geography
Kansas State University
Manhattan, KS 66506

Appendix D - Informational Letter Enclosed in Second Mailing

The experience of place in the rural counties of the Central Great Plains

KANSAS STATE UNIVERSITY

Dear Central Plains resident:

As an earlier mailing indicated, you have been randomly-selected to participate in a survey about life in the rural Great Plains of Kansas and Nebraska. Participation is voluntary: you may refuse to participate, you may refuse to answer any particular questions you do not wish to answer, and you may stop participating at any time. This survey strives to better understand different local characteristics (personal, social, historical, environmental, and economic) that encourage residents to remain in places that have been experiencing the challenges that come with population change.

This survey should take no more than 20 minutes to complete. It consists of questions about different aspects of your local community: social networks, the natural environment, historical aspects, and so forth. By returning this survey, you are consenting to the inclusion of your answers in this study. All of your responses are confidential and will be shared only between the student conducting the research and his advisor. We will not identify you in any report or presentation from this research, unless you notify us by writing a note on or with your returned survey if you do wish to have specific responses identified as your own.

Project Description

This study is being conducted by Bill Wetherholt, a graduate student in the Department of Geography at Kansas State University, as partial fulfillment of the requirements for a doctoral degree. The study contributes to understanding the varied aspects of place (personal, social, historical, environmental, and economic) that encourage residents to remain in places that have been experiencing decades of population loss. Results may contribute to generating a framework for improving the outcome of rural sustainability initiatives nearby and afar.

Research in the Great Plains is critical to regional well-being; some counties have lost more than half of their overall population in the past 50 years. This research will contribute to a more intimate understanding of how individuals in very rural places see their communities. Results of the study will be published, and presented at academic conferences.

Questions or Feedback

If you have questions about this study, please contact Bill Wetherholt, 701-330-1782 (insitu@ksu.edu), or Dr. Lisa Harrington, 785-532-3410 (lbutler h@ksu.edu), Department of Geography, Seaton Hall; Kansas State University; Manhattan, KS 66506-2904. If you would like a summary of the results of this study, let one of us know and we will provide a summary when the study is completed.

If you have concerns or complaints about this project, please report them to the Chair of Kansas State University's Internal Review Board, Rick Scheidt, 785-532-1483 (rscheidt@ksu.edu), or to the University Research Compliance Office at 785-532-3224 (comply@ksu.edu).

Bill Wetherholt
PhD Candidate
Kansas State University

Appendix E - Rationale for Survey Items

Purpose of survey: **Elucidate the diversity and intensity of the experience of place in the very rural and depopulating counties of the Central Great Plains**

Within each of these elements of place, measurement objectives include:

- **Perception and evaluation of the physical aspects of place**
- **Perception and evaluation of the social aspects of place**
- **Perception and evaluation of the personal aspects of place**
- **Perception and evaluation of the temporal aspects of place**
- **Perception and evaluation of the economic aspects of place**

Working informational statement… You were selected for this Kansas State University Department of Geography study because you reside in a [Kansas/Nebraska] county that has been losing a significant amount of population for decades. In the past 50yrs, [County] has lost [number] percent of its overall population. In an effort to have a better idea about how residents in [County] feel about the varied places they live, this questionnaire investigates some personal aspects of place. We are interested in some of the experiences and interactions you have with the surrounding area in which you reside. In particular, we want to understand how you feel about aspects of your immediate geographic area. Your immediate geographic area includes [Town] and the natural settings surrounding it. It does not refer to all of [County] or [Kansas/Nebraska]. Aspects include physical, social, personal, historical, and economic components of [Town].

Participation in this study is completely voluntary. If at any time you decide you do not wish to participate, you may withdraw from this study without any repercussions or penalty. Your answers are confidential and will not be reported in a way that can identify you personally. In addition, any names or places you provide will be changed for confidentiality. Data collected during this study will be stored on-campus in a secure place only accessible to the faculty supervisor and principle investigator. Upon the completion of the study, all records will be shredded and individual-level data on computer storage will be erased. There are no known or anticipated risks associated with participating in this study.

The results of this survey will provide local agencies invested in the future of [County] with aspects of it that are important to its residents. These results will help form better approaches to addressing the strengths and weaknesses of [County] and ultimately lead [County] towards a sustainable future. Some results may be published in professional journals and presented at conferences.

If you have any questions about this study or require further information, please contact William Wetherholt or Dr. Lisa Harrington using the contact information provided. This study has been reviewed and approved by the Institutional Review Board at Kansas State University [file #]. If you have any comments or concerns about your rights as a research participant, please contact the University Research Compliance Office at 785-532-3224.

Questions with objectives/rationales for respondent's physical aspects of place

Objective: respondent's **evaluation** of their immediate **physical setting**
Rationale: Relph (1976) identifies one's local surroundings as a component of place.
Question type: 5-point closed-ended Likert scale
Overall, how would you evaluate your community's nearby surroundings?
Very good
Good
Okay
Poor
Very poor

Objective: respondent's **perception** of area's **environmental attributes**
Rationale: Place as "people's subjective perceptions of their environments and their more or less conscious feelings about those environments" (Hummon 1992, 262).
Question type: 5-point closed-ended Likert scale
When you think about your area's natural environmental qualities, would you describe them as…
Very desirable
Somewhat desirable
Neither desirable nor undesirable
Somewhat undesirable
Very undesirable

Objective: respondent's **perception** of their surrounding's **aesthetics**
Rationale: Burholt (2006) found aesthetic qualities of the environment impact one's attachment to a location.
Question type: Open-ended response
When thinking about the appearance of your community, what are some terms that come to mind?

Objective: respondent's **evaluation** of their surrounding's **aesthetics**
Rationale: The "natural amenity settings" of a place are important to both new in-migrants as well as long-time residents (Brehm *et al.* 2006, 144).
Question type: 5-point closed-ended Likert scale
How would you evaluate the appearance of your community? Would you say it is…
Very pleasing to the eye
Somewhat pleasing to the eye
Neither pleasant or unpleasant
Somewhat unpleasant to the eye
Very unpleasant to the eye

Objective: respondent's **evaluation** of their surrounding's **scenic attributes**
Rationale: Park and Coppack's (1994) notion of *rural sentiment* also includes an individual's evaluation of a place's scenic attributes.
Question type: 5-point closed-ended Likert scale
How would you rate the visual appearance of your community? Would you say it is…
Very scenic
Somewhat scenic
Fairly ordinary
Somewhat dreary
Very dreary

Objective: respondent's **evaluation** of their **rootedness** to their immediate surroundings
Rationale: A core aspect of a place is one's attachment to it (Relph 1976).
Question type: Quantitative range of 1-10
On a scale ranging from 1 to 10, how rooted/attached do you feel to where you live? 1 means you feel absolutely no attachment and would rather live anywhere else. 10 means you feel completely rooted and you would never consider living somewhere else.

Objective: respondent's **evaluation** of **being "stuck"** in place
Rationale: Just because someone is in a place does not mean they are attached to it (Tuan 1974). Erickson, Call, and Brown (2012) cite a possibility for remaining in an isolated rural community being that they have few options and simply cannot leave.
Question type: 5-point closed-ended Likert scale
Do you agree or disagree with this statement: I am stuck in here.
Completely agree
Agree
Neither agree nor disagree
Disagree
Completely disagree

Objective: respondent's **perception** of their **bonding with the natural environment**
Rationale: Raymond *et al.* (2010) found nature bonding was a dimension of place attachment.
Question type: Open-ended response
What are a couple of outdoor activities around here you enjoy doing?

Objective: respondent's **evaluation** of their **bonding with the natural environment**
Rationale: Raymond *et al.* (2010) found nature bonding was a dimension of place attachment.
Question type: 5-point closed-ended Likert scale
How important or unimportant is your relationship with the local natural environment?
Very important
Somewhat important
Neither important or unimportant
Somewhat unimportant
Not important at all

Questions with objectives/rationales for respondent's social/cultural aspect of place

Objective: respondent's **evaluation** of the **commercial attributes** in their area
Rationale: Park and Coppack's (1994) identified commercial attributes such as recreational shopping and support activities to make up a portion of their *rural sentiment*.
Question type: 5-point closed-ended Likert scale
How easy or difficult is it to purchase things you need in town?
Very easy
Somewhat easy
Neither easy or difficult
Somewhat difficult
Very difficult

Question type: Open-answer, numeric
What is the minimum number of miles you have to travel (one-way) to purchase the majority of your grocery items?

Objective: respondent's **perception** of the **actions in their place**
Rationale: Activities that define a person through their behaviors is a social aspect of place (Burholt 2012).
Question type: Open-ended
What are a few personal activities you enjoy doing here?

Objective: respondent's **evaluation** of the **actions in their place**
Rationale: Activities that define a person through their behaviors is a social aspect of place (Burholt 2012).
Question type: 5-point closed-ended Likert scale
How little or how much is there to do here?
Quite a bit to do
A bit of stuff to do
Maybe a few things to do
Not much to do
Nothing to do

Objective: respondent's **perception** of their **involvement with their place**
Rationale: Taylor *et al.* (1985) found a positive relationship between being involved in a place through things like reading the local newspaper and belonging to local groups and being rooted to a place.
Question type: Open-ended
Are there things you do to feel involved here? If so, what are a couple of those things?

Objective: respondent's **evaluation** of their **involvement with their place**
Rationale: Taylor *et al.* (1985) found a positive relationship between being involved in a place through things like reading the local newspaper and belonging to local groups and being rooted to a place.
Question type: 5-point closed-ended Likert scale
How involved are you with you town?
Very involved
Somewhat involved
Maybe a little involved
Not really involved
Not involved at all

Objective: respondent's **perception** of the **social support** where they live
Rationale: Established relationships in a place provide a source of emotional and functional support contributing to place attachment (Burholt 2006).
Question type: Open-ended
Can you list a few ways people help each other here?

Objective: respondent's **evaluation** of the **social support** where they live
Rationale: Established relationships in a place provide a source of emotional and functional support contributing to place attachment (Burholt 2006).
Question type: 5-point closed-ended Likert scale
How helpful or unhelpful are people in your community?
Very helpful
Somewhat helpful
Neither helpful or unhelpful
Somewhat unhelpful
Very unhelpful

Objective: respondent's **evaluation** of their **bonding with friends** where they live
Rationale: Social bonding through feelings of belongingness to friends as well as those emotional connections is a dimension of place attachment (Raymond *et al.* 2010).
Question type: 5-point closed-ended Likert scale
In a typical week, how many of your days include spending time with friends or family nearby?
Very often
Often
Once in a while
Rarely
Never

Questions with objectives/rationales for respondent's psychological/personal aspect of place

Objective: respondent's **perception** of the **meaning of place**
Rationale: Relph (2008, 25) asserts that place occurs where the cultural "webs of significance" come into contact with the earth and "connect people to the world." Further, sense of place can be closely connected to the spirit of a place.
Question type: Open-ended
What does your community mean to you?

Objective: respondent's **evaluation** of **belonging in their place**
Rationale: Some places, such as retirement communities, have underlying values that foster a sense of belonging (McHugh and Mings 1996).
Question type: 5-point closed-ended Likert scale
Do you agree or disagree with this statement: this is where I belong.
Completely agree
Agree
Neither agree nor disagree
Disagree
Completely disagree

Objective: respondent's **evaluation** of the **security they feel** by living where they do
Rationale: Home is more than rootedness or length of residence, "it is also a state of mind centered on a sense of belonging and security" (McHugh and Mings 1996, 538).
Question type: 5-point closed-ended Likert scale
How safe or unsafe do you feel in your community?
Very safe
Somewhat safe
Neither safe nor unsafe
Somewhat unsafe
Very unsafe

Objective: respondent's **evaluation** of place's effect on their **emotional well-being**
Rationale: Emotional aspects of location were noted in Burholt's (2006) findings through things like a place's ability to facilitate autonomy, the solitude of a place, quietness, and other aspects that contribute to well-being.
Question type: 5-point closed-ended Likert scale
Do you agree or disagree with this statement: Living here makes me feel good.
Completely agree
Agree
Neither agree nor disagree
Disagree
Completely disagree

Questions with objectives/rationales for respondent's temporal aspect of place

Objective: respondent's **evaluation** of being **an insider in a place/drawing their personal narrative** from where they are located
Rationale: Life experiences can have an affective bond with a place and place attachment is related to experiences of the life course (Rubenstein and Parmelee 1992).
Question type: 5-point closed-ended Likert scale
How much of an insider or outsider do you feel like here?
Complete insider
Insider
Neither an insider nor an outsider
Outsider
Complete outsider

Objective: respondent's duration in place
Rationale: Accumulated place-specific insider advantages contribute to a value of immobility, or in other words, rootedness (Fischer *et al.* 2000).
Question type: Open-ended, numeric
What is the total number of years that you have lived here?

Questions with objectives/rationales for respondent's economic aspect of place

Objective: respondent's **evaluation** of obtaining a livelihood from a place.
My Rationale: An ability to earn a living in a place contributes to place attachment.
Question type: 5-point closed-ended Likert scale
How important is (or was, if retired) [this community in earning your livelihood?
Very important
Important
Not important nor unimportant
Unimportant
Very unimportant

Question type: 5-point closed-ended Likert scale
What is your current employment status?
Employed full time (30+ hours per week)
Employed part-time
Unemployed
Retired
Other

Question type: Open-ended
What kind of work do you do (or did, if retired) to earn an income?

Other questions for general demographic information

Question type: Open-ended
In what year were you born?

Question type: Multiple choice
What is your gender?
Female
Male
Transgender
Other

Question type: Multiple choice
What is your race?
White
Black
Hispanic
Asian
Mixed ancestry
Prefer not to answer
Other

Appendix F - Questionnaire Codes for Entering Responses

Q1: How would you evaluate the visual appearance of your community?	5 = Very attractive	4 = Somewhat attractive	3 = Average appearance	2 = Not very attractive	1 = Not attractive at all
Q3: Overall, how would you evaluate your community's nearby surroundings?	5 = Very good	4 = Good	3 = Acceptable	2 = Poor	1 = Very poor
Q4: When you think about your areas's outdoor amenities (such as lakes, parks, scenery, etc.), would you describe them as:	5 = Very desirable	4 = Somewhat desirable	3 = Neither…	2 = Somewhat undesirable	1 = Very undesirable
Q5: How easy or difficult is it to purchase the things you need in your community?	5 = Very easy	4 = Somewhat easy	3 = Neither…	2 = Somewhat difficult	1 = Very difficult
Q6: What is the minimum number of miles you can travel (one-way) to purchase the majority of your grocery items?	If "in town" then 1mi	Less than 1mi = 0.5mi	3 blocks = 0.25mi	If 0 then 0.25	
Q7: How safe of unsafe do you feel in your community?	5 = Very safe	4 = Somewhat safe	3 = Neither…	2 = Somewhat unsafe	1 = Very unsafe
Q8: How important is the local natural environment to you?	5 = Very important	4 = Somewhat important	3 = Neither…	2 = Somewhat unimportant	1 = Very unimportant
Q10: In a typical week, how many of your days include spending time with friends and/or family that live nearby?	5 = Every day	4 = At least five days	3 = Three or four days	2 = One or two days	1 = No days
Q11: How helpful or unhelpful are people in your community?	5 = Very helpful	4 = Somewhat helpful	3 = Neither…	2 = Somewhat unhelpful	1 = Very unhelpful
Q15: If applicable, what was the earliest year/decade that a member of your family began living here or nearby?	If decade, middle year selected	If early 1900s, then 1915	If late 1800s, then 1885	If pre 1900s, then 1885	"Early 1900s or Late 1800s" = 1900
Q16: Do you agree or disagree with this statement: Living here makes me feel good.	5 = Completely agree	4 = Agree	3 = Neither agree or disagree	2 = Disagree	1 = Completely disagree
Q17: On a scale of 1 to 10, how rooted/attached do you feel to where you live?	10 = Feel completely rooted, would never consider living elsewhere			1 = Absolutely no attachment, rather live almost anywhere else	
Q18: Do you agree or disagree with this statement: I am stuck here.	5 = Completely agree	4 = Agree	3 = Neither agree or disagree	2 = Disagree	1 = Completely disagree
Q19: How much or how little is there for you to do in your community and nearby?	5 = Great number of things	4 = Many things to do	3 = Some things to do	2 = Not many things to do	1 = Nothing to do
Q20: How involved are you with your town?	5 = Very involved	4 = Somewhat involved	3 = Neither…	2 = Somewhat uninvolved	1 = Very uninvolved

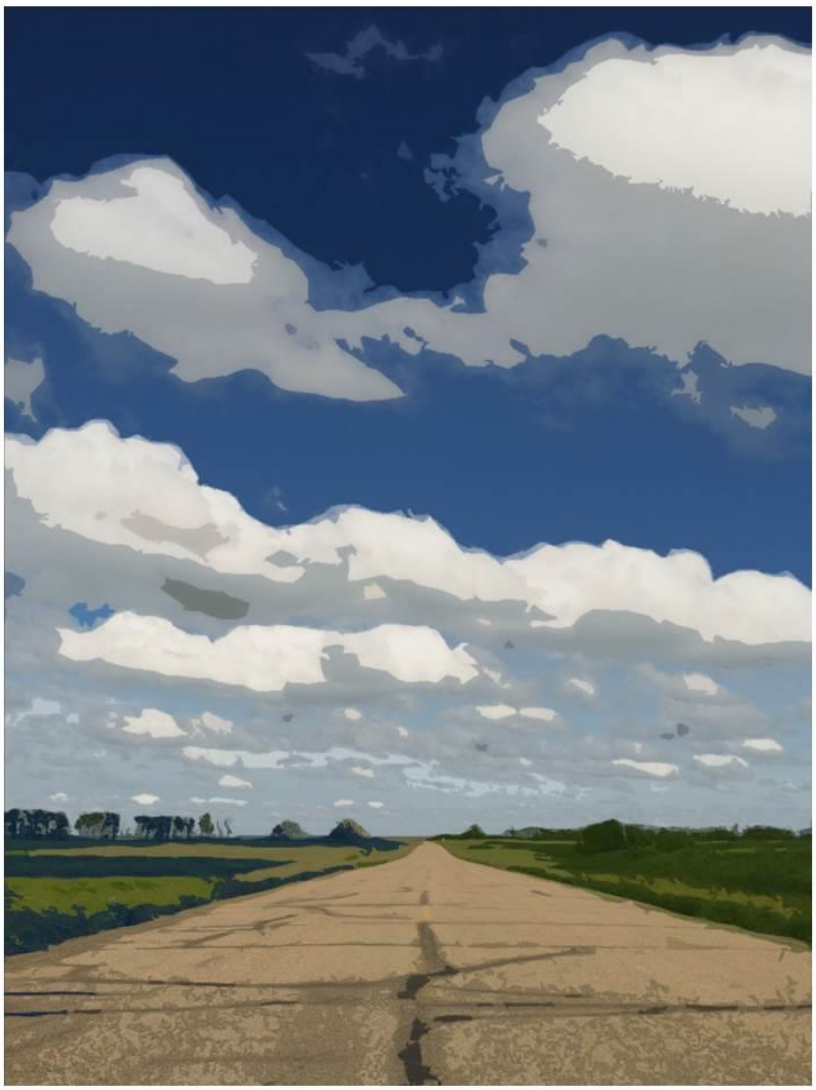
Q22: How much of an insider or outsider do you feel like here?	5 = Complete insider	4 = Insider somewhat	3 = Neither...	2 = Outsider somewhat	1 = Complete outsider	
Q23: Do you agree or disagree with this statement: Community spirit is strong here.	5 = Completely agree	4 = Agree	3 = Neither agree or disagree	2 = Disagree	1 = Completely disagree	
Q24: Do you agree or disagree with this statement: This is where I belong.	5 = Completely agree	4 = Agree	3 = Neither agree or disagree	2 = Disagree	1 = Completely disagree	
Q26: How important has this community been in earning your livelihood?	5 = Very important	4 = Somewhat important	3 = Neither...	2 = Somewhat unimportant	1 = Very unimportant	
Q29: What state do you live in?	0 = Kansas	1 = Nebraska				
MSA or mSA Adjacent?	0 = Not adjacent	1 = Adjacent				
Q32a: Did you live in this community 10 years ago?	3 = Yes, this house/apartment	2 = Yes, different house	1 = No, different town			
Q34: What is your current employment status?	6 = Full time (30+ hrs)	5 = Employed part-time	4 = Homemaker	3 = Unemployed, seeking	2 = Unemployed, not seeking	1 = Retired
Q35: What is the total number of years you have lived here?	In years					
Q36: Do you own or rent your current residence?	0 = Rent	1 = Own				
Q37: What is the maximum number of miles you could travel away from here but still consider it "nearby?"	In miles					
Q38: In what year were you born?	Age by "= 2015-year"					
Q39: What is your gender?	0 = Female	1 = Male				
Q40: What is your ethnicity?	6 = White	5 = Black	4 = Hispanic	3 = Asian	2 = Native American	1 = More than one ethnicity
Q41: What is your marital status?	5 = Single	4 = Married	3 = Divorced/separated	2 = Widowed	1 = Domestic partner	
42: What is your annual household income?	5 = $80,000 or above	4 = $60,000 to $79,999	3 = $40,000 to $59,999	2 = $20,000 to $39,999	1 = Under $20,000	

Appendix G - Poster Advertising Presentation of Pilot Results

Kansas State University Department of Geography and
Jewell County Historical Society proudly present:

Exploring Place Attachment in Jewell County

Presented by Bill Wetherholt, Ph.D. Candidate at Kansas State University



Ute Theatre in Mankato, KS
7:00pm Wednesday November 19th
Everyone Welcome to Attend

Questions?
Janelle Greene (785) 534-0940 jchs1870@hotmail.com
Bill Wetherholt (701) 330-1782 insitu@ksu.edu

KANSAS STATE UNIVERSITY
Department of Geography

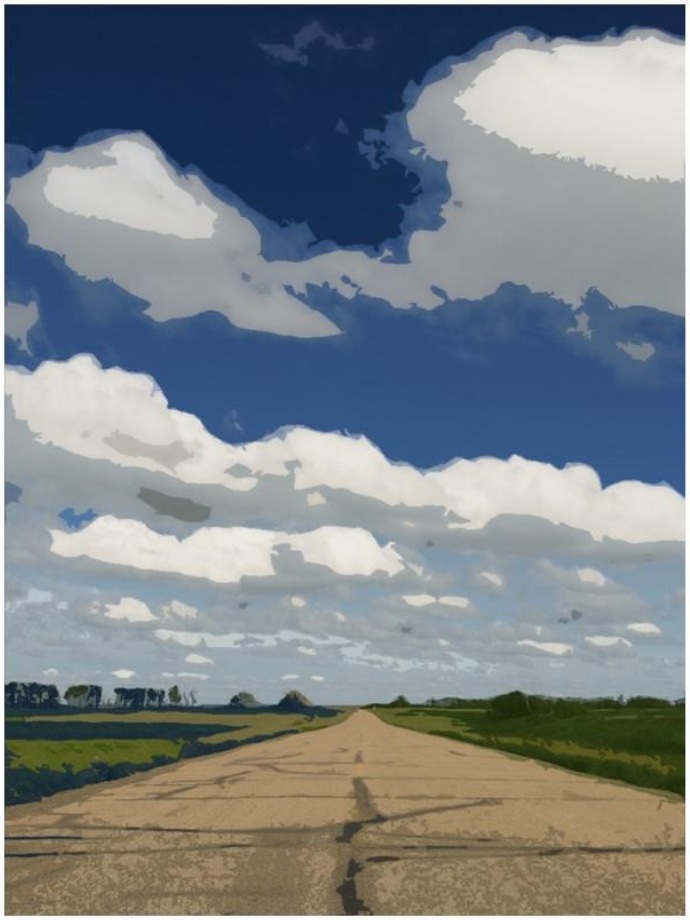
Appendix H - Focus Group Recruitment Poster

Flyer for Hooker County shown; relevant wording changed for other locations.

Focus Group Volunteers Needed

Share your stories about living here and thoughts about how to make Hooker County even better!

Research is being conducted in Mullen Friday November 6th from 6:00 – 8:00pm by Bill Wetherholt: Ph.D. Candidate in Geography at Kansas State University



For more information on how to participate please contact Bill Wetherholt

(701) 330-1782 insitu@ksu.edu
118 Seaton Hall, Manhattan, KS 66506

KANSAS STATE UNIVERSITY
Department of Geography

Participation in this study is completely voluntary. Your answers are confidential and will not be reported in a way that can identify you personally. You may freely withdraw from this study at any time without repercussions.
There are no known or anticipated risks associated with participating in this study.

Appendix I - Informed Consent Form for Focus Groups

The experience of place in the rural counties of the Central Great Plains

KANSAS STATE UNIVERSITY

You have been asked to participate in a focus group about life in the rural Great Plains of Kansas and Nebraska. Participation is voluntary: you may refuse to participate, you may refuse to answer any particular questions you do not wish to answer, and you may stop participating at any time. This focus group aims to enrich, explain, and explore the results of a recently completed mailed survey.

This focus group should last about one hour. In this hour, I will ask some questions about different aspects of your local community: social networks, the natural environment, historical aspects, and so forth. Audio will be recorded for the purposes of transcription and analysis of responses. All individual responses will be kept secure and confidential, will be shared only between the student conducting the research and his advisor. We will not identify you by name in any report or presentation from this research, unless you notify us in writing if you do wish to have specific responses identified as your own.

Project Description

This study is being conducted by Bill Wetherholt, a graduate student in the Department of Geography at Kansas State University, as partial fulfillment of the requirements for a Doctoral degree. The study contributes to understanding the varied aspects of place (personal, social, historical, environmental, and economic) that encourage residents to remain in places that have been experiencing decades of population loss. Results may contribute to generating a framework for improving the outcome of rural sustainability initiatives nearby and afar.

Research in the Great Plains is critical to regional well-being; some counties have lost more than half of their overall population in the past 50 years. This research will contribute to a more intimate understanding of how individuals in very rural places see their communities. Results of the study will be published, and presented at academic conferences.

Questions or Feedback

If you have questions about this study, please contact Bill Wetherholt, 701-330-1782 (insitu@ksu.edu), or Dr. Lisa Harrington, 785-532-3410 (lbutlerh@ksu.edu). If you would like a summary of the results of this study, let one of us know and we will provide a summary when the study is completed.

If you have concerns or complaints about this project, please report them to the Chair of Kansas State University's Internal Review Board, Rick Scheidt, 785-532-1483 (rscheidt@ksu.edu), or to the University Research Compliance Office at 785-532-3224 (comply@ksu.edu).

Bill Wetherholt
PhD Candidate
Kansas State University

Focus Group Informed Consent:
The experience of place in the rural counties of the Central Great Plains

TERMS OF PARTICIPATION: I understand this project is research, and that my participation is completely voluntary. I also understand that if I decide to participate in this study, I may withdraw at any time without explanation.

I verify that my signature below indicates that I have read and understand this consent form, and willingly agree to participate in this study **without being specifically identified**, and that my signature acknowledges that I have received a signed and dated copy of this consent form.

Name: _____

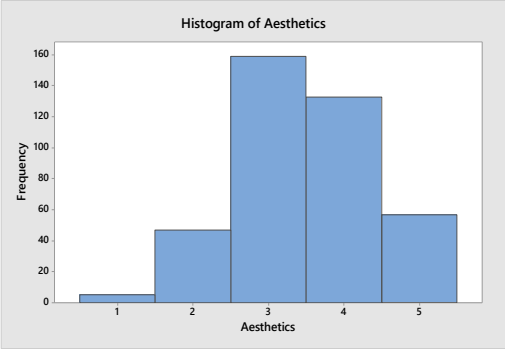
Signature: _____

Date: _____

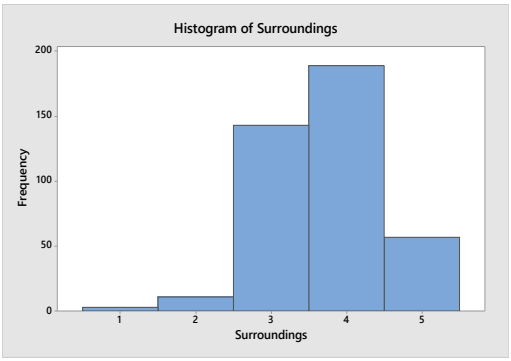
Appendix J - Responses and Histograms for Closed-Ended Questionnaire Questions

Number of responses (N) varies from 404 for each item due to missing responses. That is, 401 respondents answered question 1; there were 3 questionnaires that had no response for this item.

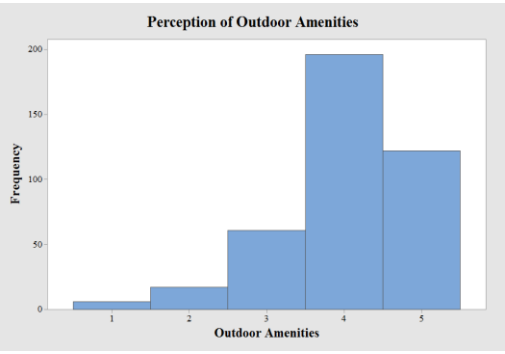
Q1. Aesthetics	Code	Count	Percent	CumPct
Not attractive at all	1	5	1.25	1.25
Not very attractive	2	47	11.72	12.97
Average appearance	3	159	39.65	52.62
Somewhat attractive	4	133	33.17	85.79
Very attractive	5	57	14.21	100
	N=	401		
Skewness -0.07				
Kurtosis -0.40				



Q3. Eval of Surroundings	Code	Count	Percent	CumPct
Very poor	1	3	0.74	0.74
Poor	2	11	2.73	3.47
Acceptable	3	143	35.48	38.96
Good	4	189	46.9	85.86
Very Good	5	57	14.14	100
	N=	403		
Skewness -0.21				
Kurtosis 0.26				



Q4. Perception of Outdoor Amenities	Code	Count	Percent	CumPct
Very undesirable	1	6	1.49	1.49
Somewhat undesirable	2	17	4.23	5.72
Neither (un)/desirable	3	61	15.17	20.9
Somewhat desirable	4	196	48.76	69.65
Very desirable	5	122	30.35	100
	N=	402		
Skewness -0.97				
Kurtosis 1.20				



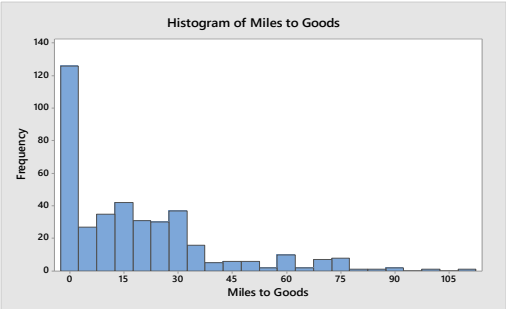
Q5. Ease of purchases

	Code	Count	Percent	CumPct
Very difficult	1	49	12.28	12.28
Somewhat difficult	2	122	30.58	42.86
Neither easy/difficult	3	70	17.54	60.4
Somewhat easy	4	133	33.33	93.73
Very easy	5	25	6.27	100
	N=	399		

Skewness	-0.04
Kurtosis	-1.14

Q6. One-way distance to goods

Miles	Count	Percent	CumPct
0.2	1	0.25	0.25
0.25	28	7.07	7.32
0.3	1	0.25	7.58
0.5	29	7.32	14.9
0.75	1	0.25	15.15
1	53	13.38	28.54
2	13	3.28	31.82
2.5	2	0.51	32.32
3	4	1.01	33.33
3.5	1	0.25	33.59
4	4	1.01	34.6
5	6	1.52	36.11
6	4	1.01	37.12
7	6	1.52	38.64
8	11	2.78	41.41
9	1	0.25	41.67
10	15	3.79	45.45
10.5	1	0.25	45.71
11	3	0.76	46.46
12	4	1.01	47.47
13	2	0.51	47.98
14	4	1.01	48.99
15	22	5.56	54.55
15.5	1	0.25	54.8
16	6	1.52	56.31
17	7	1.77	58.08
18	6	1.52	59.6

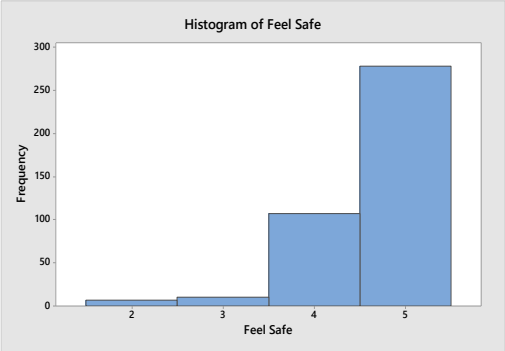


	20	20	5.05	64.65
	21	2	0.51	65.15
	22	3	0.76	65.91
	23	2	0.51	66.41
	24	1	0.25	66.67
	25	13	3.28	69.95
	26	3	0.76	70.71
	27	11	2.78	73.48
	28	4	1.01	74.49
	30	33	8.33	82.83
	35	12	3.03	85.86
	36	3	0.76	86.62
	37	1	0.25	86.87
	40	5	1.26	88.13
	45	6	1.52	89.65
	48	1	0.25	89.9
	50	5	1.26	91.16
	55	2	0.51	91.67
	60	10	2.53	94.19
	65	2	0.51	94.7
	70	6	1.52	96.21
	71	1	0.25	96.46
	73	1	0.25	96.72
	74	1	0.25	96.97
	75	5	1.26	98.23
	76	1	0.25	98.48
	80	1	0.25	98.74
	85	1	0.25	98.99
	90	1	0.25	99.24
	92	1	0.25	99.49
	100	1	0.25	99.75
	110	1	0.25	100
	N=	399		
Skewness	1.51			
Kurtosis	2.21			

Q7. Safe or unsafe?

	Code	Count	Percent	CumPct
Very unsafe	1	0	0	0
Somewhat unsafe	2	7	1.74	1.74
Neither (un)/safe	3	10	2.49	4.23
Somewhat safe	4	107	26.62	30.85
Very safe	5	278	69.15	100
	N=	402		

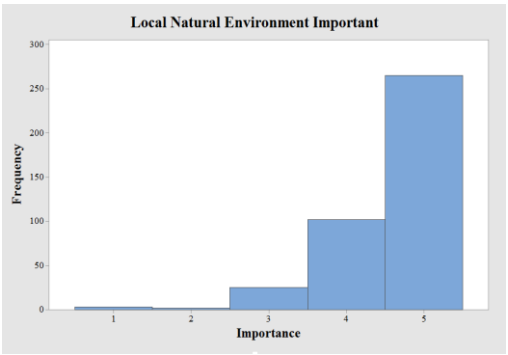
Skewness	-1.91
Kurtosis	4.20



Q8. Local Natural Environment Important?

		Count	Percent	CumPct
Very unimportant	1	3	0.76	0.76
Somewhat unimportant	2	2	0.5	1.26
Neither (un)/important	3	25	6.3	7.56
Somewhat important	4	102	25.69	33.25
Very important	5	265	66.75	100
	N=	397		

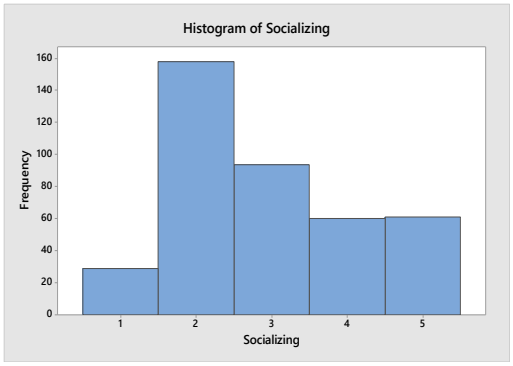
Skewness	-1.95
Kurtosis	4.87



Q10. Time spent socializing

	Code	Count	Percent	CumPct
No days	1	29	7.21	7.21
One or two days	2	158	39.3	46.52
Three or four days	3	94	23.38	69.9
At least five/not every day	4	60	14.93	84.83
Every day	5	61	15.17	100
	N=	402		

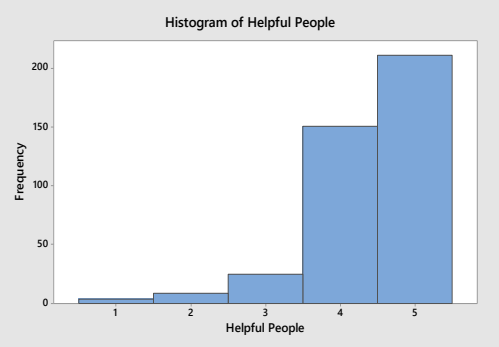
Skewness	0.44
Kurtosis	-0.89



Q11. Helpful people in community

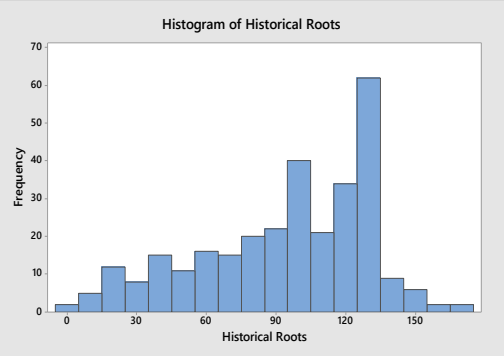
Code	Count	Percent	CumPct
Very unhelpful	1	4	1	1
Somewhat unhelpful	2	9	2.25	3.25
Neither (un)/helpful	3	25	6.25	9.5
Somewhat helpful	4	151	37.75	47.25
Very helpful	5	211	52.75	100
	N=	400		

Skewness	-1.59
Kurtosis	3.26



Q15. Area family roots

Years here	Count	Percent	CumPct
2	1	0.33	0.33
3	1	0.33	0.66
6	1	0.33	0.99
10	2	0.66	1.66
14	2	0.66	2.32
15	3	0.99	3.31
17	2	0.66	3.97
18	1	0.33	4.3
19	3	0.99	5.3
20	1	0.33	5.63
21	1	0.33	5.96
23	1	0.33	6.29
25	2	0.66	6.95
29	1	0.33	7.28
30	3	0.99	8.28
31	1	0.33	8.61
33	1	0.33	8.94
37	3	0.99	9.93
38	2	0.66	10.6
39	4	1.32	11.92
40	3	0.99	12.91
41	1	0.33	13.25
42	1	0.33	13.58
43	1	0.33	13.91
45	3	0.99	14.9
47	1	0.33	15.23
49	1	0.33	15.56
50	4	1.32	16.89



51	1	0.33	17.22
54	1	0.33	17.55
55	2	0.66	18.21
57	3	0.99	19.21
58	1	0.33	19.54
60	4	1.32	20.86
61	2	0.66	21.52
62	1	0.33	21.85
63	1	0.33	22.19
64	2	0.66	22.85
65	2	0.66	23.51
66	1	0.33	23.84
69	1	0.33	24.17
70	8	2.65	26.82
71	1	0.33	27.15
73	2	0.66	27.81
75	4	1.32	29.14
76	1	0.33	29.47
78	2	0.66	30.13
80	11	3.64	33.77
81	1	0.33	34.11
83	1	0.33	34.44
85	7	2.32	36.75
87	1	0.33	37.09
89	1	0.33	37.42
90	10	3.31	40.73
93	2	0.66	41.39
94	1	0.33	41.72
95	8	2.65	44.37
97	1	0.33	44.7
98	2	0.66	45.36
99	1	0.33	45.7
100	24	7.95	53.64
101	2	0.66	54.3
103	2	0.66	54.97
105	7	2.32	57.28
106	1	0.33	57.62
107	2	0.66	58.28
108	1	0.33	58.61
109	2	0.66	59.27
110	3	0.99	60.26
111	2	0.66	60.93

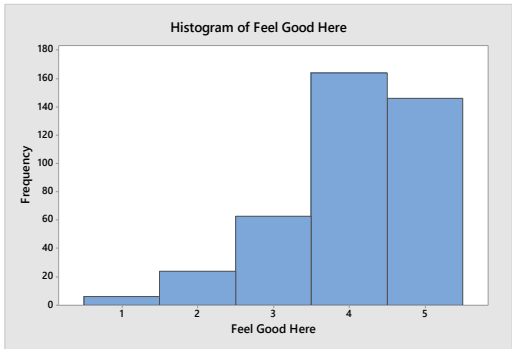
113	2	0.66	61.59
114	1	0.33	61.92
115	16	5.3	67.22
117	2	0.66	67.88
119	1	0.33	68.21
120	10	3.31	71.52
121	1	0.33	71.85
122	1	0.33	72.19
124	3	0.99	73.18
125	8	2.65	75.83
126	2	0.66	76.49
127	1	0.33	76.82
128	3	0.99	77.81
129	5	1.66	79.47
130	40	13.25	92.72
131	2	0.66	93.38
134	1	0.33	93.71
135	3	0.99	94.7
137	1	0.33	95.03
140	3	0.99	96.03
142	1	0.33	96.36
143	1	0.33	96.69
145	2	0.66	97.35
146	1	0.33	97.68
150	3	0.99	98.68
155	1	0.33	99.01
160	1	0.33	99.34
165	2	0.66	100
N=	302		

Skewness	-0.61
Kurtosis	-0.50

Q16. Feel good living here

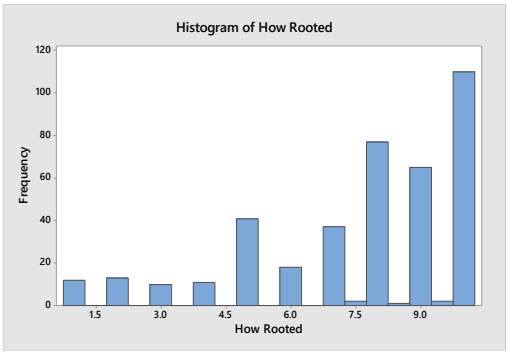
	Code	Count	Percent	CumPct
Completely disagree	1	6	1.49	1.49
Disagree	2	24	5.96	7.44
Neither agree or disagree	3	63	15.63	23.08
Agree	4	164	40.69	63.77
Completely agree	5	146	36.23	100
	N=	403		

Skewness	-0.94
Kurtosis	0.56



Q17. Rooted, Ranked 1 to 10

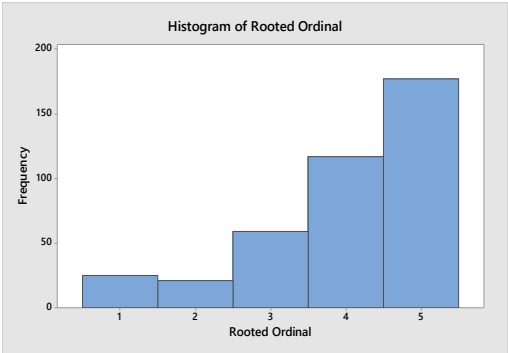
Rank	Count	Percent	CumPct
1	12	3.01	3.01
2	13	3.26	6.27
3	10	2.51	8.77
4	11	2.76	11.53
5	41	10.28	21.8
6	18	4.51	26.32
7	37	9.27	35.59
7.5	2	0.5	36.09
8	77	19.3	55.39
8.5	1	0.25	55.64
9	65	16.29	71.93
9.5	2	0.5	72.43
10	110	27.57	100
N=	399		



Skewness	-1.06
Kurtosis	0.30

Q17o. Rooted - Ordinal

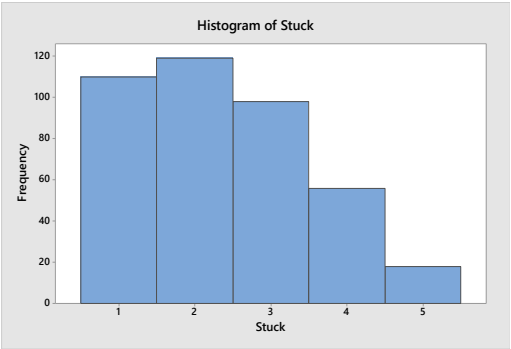
	Code	Count	Percent	CumPct
Very low attachment (1-2)	1	25	6.27	6.27
Low attachment (3-4)	2	21	5.26	11.53
Moderate attachment (5-6)	3	59	14.79	26.32
High attachment (7-8)	4	117	29.32	55.64
Very high attachment (9-10)	5	177	44.36	100
	N=	399		



Skewness	-1.15
Kurtosis	0.52

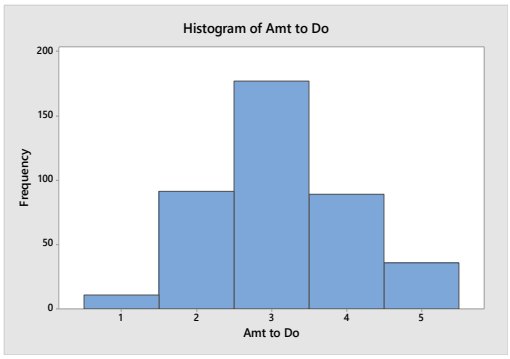
Q18. I am stuck here

	Code	Count	Percent	CumPct
Completely disagree	1	110	27.43	27.43
Disagree	2	119	29.68	57.11
Neither agree or disagree	3	98	24.44	81.55
Agree	4	56	13.97	95.51
Completely agree	5	18	4.49	100
	N=	401		

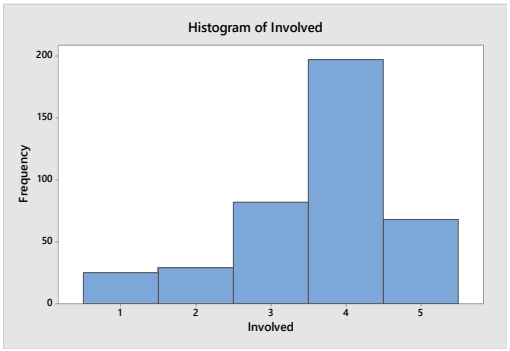


Skewness	0.46
Kurtosis	-0.69

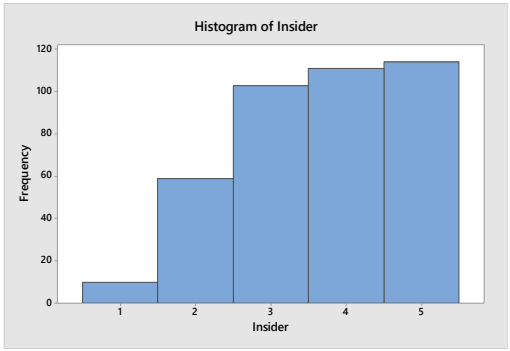
Q19. How much to do here/nearby?	Code	Count	Percent	CumPct
Nothing to do	1	11	2.72	2.72
Not many things to do	2	91	22.52	25.25
Some things to do	3	177	43.81	69.06
Many things to do	4	89	22.03	91.09
Great number of things to do	5	36	8.91	100
	N=	404		
Skewness	0.20			
Kurtosis	-0.31			



Q20. How involved with town?	Code	Count	Percent	CumPct
Very uninvolved	1	25	6.23	6.23
Somewhat uninvolved	2	29	7.23	13.47
Neither (un)/involved	3	82	20.45	33.92
Somewhat involved	4	197	49.13	83.04
Very involved	5	68	16.96	100
	N=	401		
Skewness	-0.92			
Kurtosis	0.51			

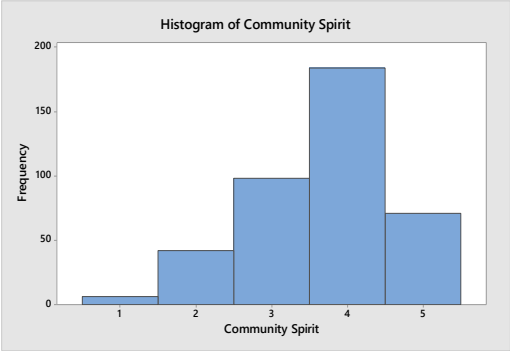


Q22. Insider or outsider	Code	Count	Percent	CumPct
Complete outsider	1	10	2.52	2.52
Outsider somewhat	2	59	14.86	17.38
Neither insider or outsider	3	103	25.94	43.32
Insider somewhat	4	111	27.96	71.28
Complete insider	5	114	28.72	100
	N=	397		
Skewness	-0.37			
Kurtosis	-0.84			



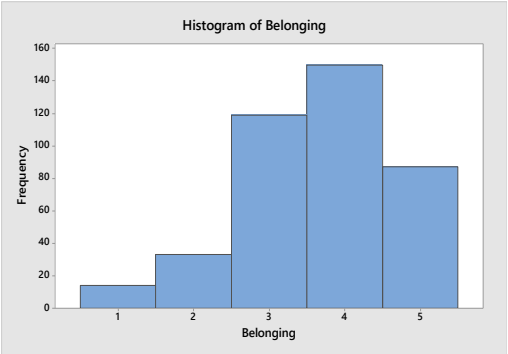
Q23. Community spirit is strong

	Code	Count	Percent	CumPct
Completely disagree	1	6	1.5	1.5
Disagree	2	42	10.47	11.97
Neither agree or disagree	3	98	24.44	36.41
Agree	4	184	45.89	82.29
Completely agree	5	71	17.71	100
	N=	401		
Skewness	-0.54			
Kurtosis	0.09			



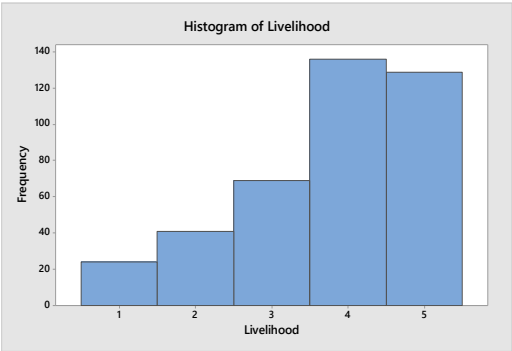
Q24. This is where I belong

	Code	Count	Percent	CumPct
Completely disagree	1	14	3.47	3.47
Disagree	2	33	8.19	11.66
Neither agree or disagree	3	119	29.53	41.19
Agree	4	150	37.22	78.41
Completely agree	5	87	21.59	100
	N=	401		
Skewness	-0.53			
Kurtosis	-0.07			



Q26. Place important for livelihood

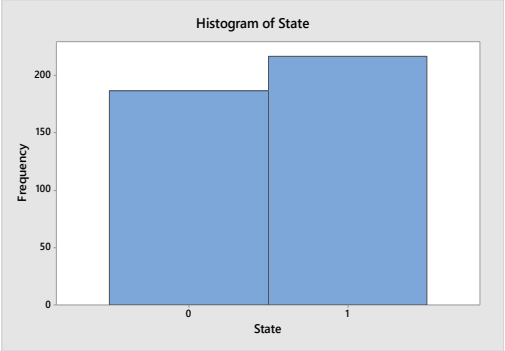
	Code	Count	Percent	CumPct
Very unimportant	1	24	6.02	6.02
Somewhat unimportant	2	41	10.28	16.29
Neither (un)/important	3	69	17.29	33.58
Somewhat important	4	136	34.09	67.67
Very important	5	129	32.33	100
	N=	399		
Skewness	-0.79			
Kurtosis	-0.25			



Q29. State

	Code	Count	Percent	CumPct
Kansas	0	187	46.29	46.29
Nebraska	1	217	53.71	100
	N=	404		

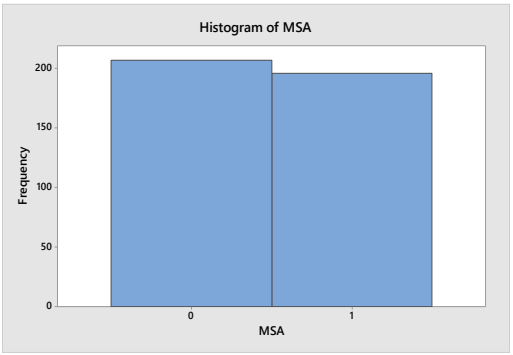
Skewness	-0.15
Kurtosis	-1.99



mSA adjacent county?

	Code	Count	Percent	CumPct
Not in a mSA adjacent county	0	207	51.36	51.36
In a mSA adjacent county	1	196	48.64	100
	N=	403		

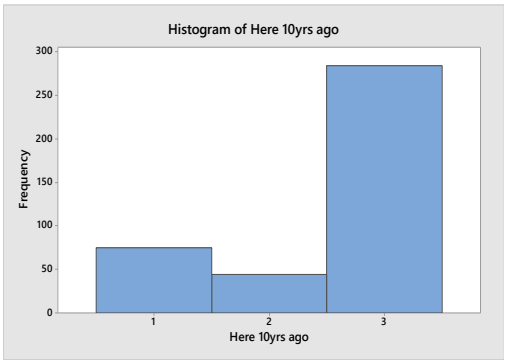
Skewness	0.05
Kurtosis	-2.01



Q32a. Here 10 yrs ago

	Code	Count	Percent	CumPct
No, different town	1	75	18.61	18.61
Yes, different house/apt	2	44	10.92	29.53
Yes, this house/apartment	3	284	70.47	100
	N=	403		

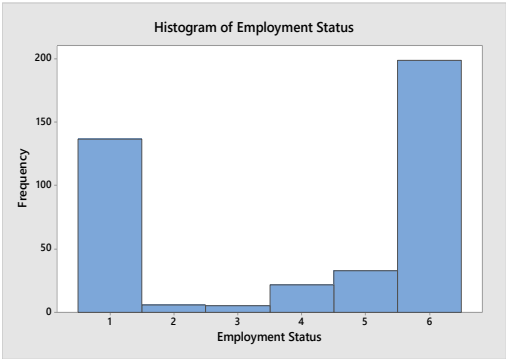
Skewness	-1.20
Kurtosis	-0.31



Q34. Employment status

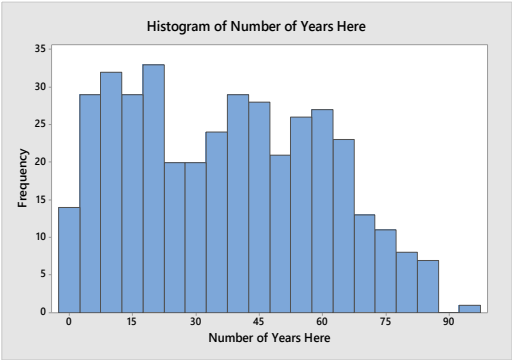
	Code	Count	Percent	CumPct
Retired	1	137	34.08	34.08
Unemployed, not looking for work	2	6	1.49	35.57
Unemployed, looking for work	3	5	1.24	36.82
Homemaker	4	22	5.47	42.29
Employed part-time	5	33	8.21	50.5
Employed full-time	6	199	49.5	100
	N=	402		

Skewness	-0.46
Kurtosis	-1.67



Q35. Total years in place
Fractional responses rounded.

Years	Count	Percent	CumPct
1	7	1.77	1.77
2	7	1.77	3.54
3	7	1.77	5.31
4	5	1.27	6.58
5	7	1.77	8.35
6	3	0.76	9.11
7	7	1.77	10.88
8	7	1.77	12.65
9	5	1.27	13.92
10	11	2.78	16.70
11	5	1.01	17.71
12	4	1.01	18.99
13	2	0.51	19.49
14	4	1.01	20.51
15	11	2.78	23.29
16	6	1.52	24.81
17	6	1.52	26.33
18	8	2.03	28.35
19	4	1.01	29.37
20	12	3.04	32.41
21	5	1.27	33.67
22	4	1.01	34.68
23	4	1.01	35.7
24	2	0.51	36.2
25	9	2.28	38.48
26	3	0.76	39.24
27	2	0.51	39.75
28	4	1.01	40.76
29	1	0.25	41.01
30	8	2.03	43.04
31	2	0.51	43.54
32	5	1.27	44.81
33	2	0.51	45.32
34	5	1.27	46.58
35	9	2.28	48.86
36	2	0.51	49.37
37	6	1.52	50.89
38	4	1.01	51.9
39	4	1.01	52.91
40	11	2.78	55.7
41	5	1.27	56.96
42	5	1.27	58.23

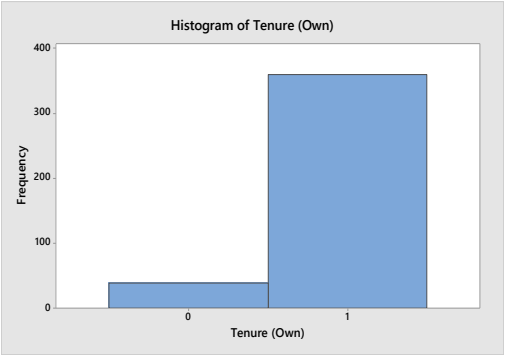


43	5	1.27	59.49
44	4	1.01	60.51
45	9	2.28	62.78
46	4	1.01	63.8
47	6	1.52	65.32
48	3	0.76	66.08
49	1	0.25	66.33
50	15	3.8	70.13
52	2	0.51	70.63
53	4	1.01	71.65
54	5	1.27	72.91
55	8	2.03	74.94
56	3	0.76	75.7
57	6	1.52	77.22
58	4	1.01	78.23
59	4	1.01	79.24
60	13	3.29	82.53
61	3	0.76	83.29
62	3	0.76	84.05
63	5	1.27	85.32
64	6	1.52	86.84
65	6	1.52	88.35
66	2	0.51	88.86
67	4	1.01	89.87
68	1	0.25	90.13
69	1	0.25	90.38
70	5	1.27	91.65
71	2	0.51	92.15
72	4	1.01	93.16
73	4	1.01	94.18
74	1	0.25	94.43
75	3	0.76	95.19
76	1	0.25	95.44
77	2	0.51	95.95
78	1	0.25	96.2
79	1	0.25	96.46
80	1	0.25	96.71
81	3	0.76	97.47
82	2	0.51	97.97
83	2	0.51	98.48
84	2	0.51	98.99
85	1	0.25	99.24
87	2	0.51	99.75

		96	1	0.25	100
		N=	395		
Skewness	0.21				
Kurtosis	-1.00				

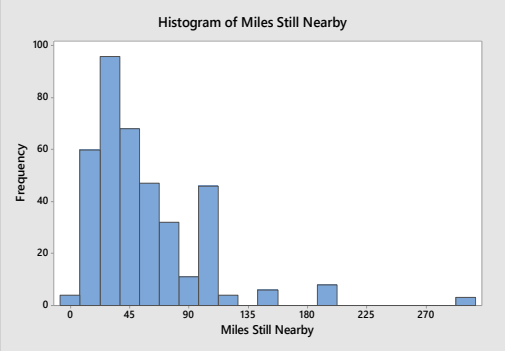
Q36. Tenure

		Code	Count	Percent	CumPct
Rent		0	39	9.8	9.8
Own		1	359	90.2	100
		N=	398		
Skewness	-2.71				
Kurtosis	5.40				



Q37. Maximum number of miles still considered "nearby"

Miles	Count	Percent	CumPct
5	2	0.52	0.52
6	1	0.26	0.78
7	1	0.26	1.04
9	1	0.26	1.3
10	13	3.38	4.68
10.5	1	0.26	4.94
12	2	0.52	5.45
14	2	0.52	5.97
15	12	3.12	9.09
18	1	0.26	9.35
20	26	6.75	16.1
22	2	0.52	16.62
25	22	5.71	22.34
27	5	1.3	23.64
28	3	0.78	24.42
29	1	0.26	24.68
30	56	14.55	39.22
31	1	0.26	39.48
35	8	2.08	41.56
40	17	4.42	45.97
45	11	2.86	48.83
50	40	10.39	59.22
55	4	1.04	60.26
56	1	0.26	60.52



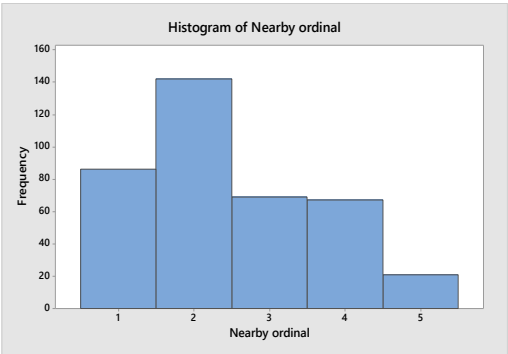
60	33	8.57	69.09
65	9	2.34	71.43
70	13	3.38	74.81
71	1	0.26	75.06
74	1	0.26	75.32
75	7	1.82	77.14
76	1	0.26	77.4
80	9	2.34	79.74
85	2	0.52	80.26
86	1	0.26	80.52
90	7	1.82	82.34
95	1	0.26	82.6
100	46	11.95	94.55
120	3	0.78	95.32
125	1	0.26	95.58
150	6	1.56	97.14
200	8	2.08	99.22
300	3	0.78	100
N=	385		

Skewness	2.33
Kurtosis	8.49

Q37o. Still nearby - ordinal

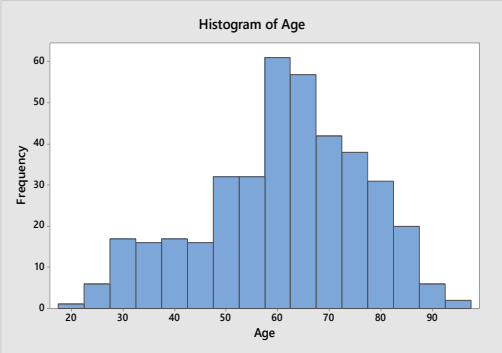
	Code	Count	Percent	CumPct
1 to 25 miles	1	86	22.34	22.34
25 to 50 miles	2	142	36.88	59.22
51 to 75 miles	3	69	17.92	77.14
76 to 100 miles	4	67	17.4	94.55
More than 100 miles	5	21	5.45	100
	N=	385		

Skewness	0.50
Kurtosis	-0.72



Q38. Age

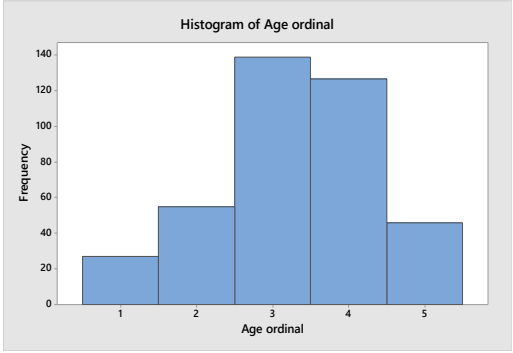
Years	Count	Percent	CumPct
20	1	0.25	0.25
23	1	0.25	0.51
25	1	0.25	0.76
26	1	0.25	1.02
27	3	0.76	1.78
28	3	0.76	2.54
29	3	0.76	3.3
30	3	0.76	4.06
31	3	0.76	4.82
32	5	1.27	6.09
33	1	0.25	6.35
34	2	0.51	6.85
35	4	1.02	7.87
36	5	1.27	9.14
37	4	1.02	10.15
38	1	0.25	10.41
39	6	1.52	11.93
40	5	1.27	13.2
42	5	1.27	14.47
43	3	0.76	15.23
44	1	0.25	15.48
45	3	0.76	16.24
46	3	0.76	17.01
47	6	1.52	18.53
48	7	1.78	20.3
49	2	0.51	20.81
50	8	2.03	22.84
51	10	2.54	25.38
52	5	1.27	26.65
53	6	1.52	28.17
54	4	1.02	29.19
55	7	1.78	30.96
56	7	1.78	32.74
57	8	2.03	34.77
58	13	3.3	38.07
59	7	1.78	39.85
60	17	4.31	44.16
61	14	3.55	47.72
62	10	2.54	50.25
63	12	3.05	53.3
64	11	2.79	56.09



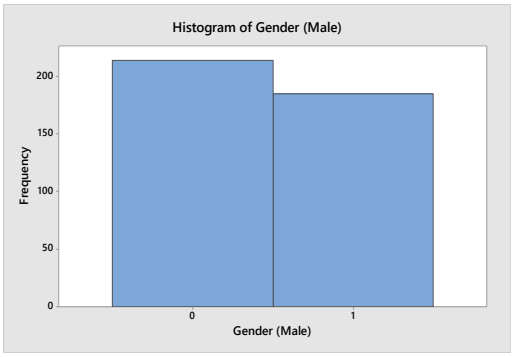
65	9	2.28	58.38
66	9	2.28	60.66
67	16	4.06	64.72
68	9	2.28	67.01
69	8	2.03	69.04
70	6	1.52	70.56
71	9	2.28	72.84
72	10	2.54	75.38
73	9	2.28	77.66
74	7	1.78	79.44
75	8	2.03	81.47
76	7	1.78	83.25
77	7	1.78	85.03
78	10	2.54	87.56
79	3	0.76	88.32
80	2	0.51	88.83
81	7	1.78	90.61
82		2.28	92.89
83		1.27	94.16
84		0.51	94.67
85		1.02	95.69
86		1.27	96.95
87		1.02	97.97
88		0.25	98.22
89		0.25	98.48
90		0.51	98.98
91		0.25	99.24
92		0.25	99.49
93		0.25	99.75
96		0.25	100
N=			

Skewness	-0.38
Kurtosis	-0.36

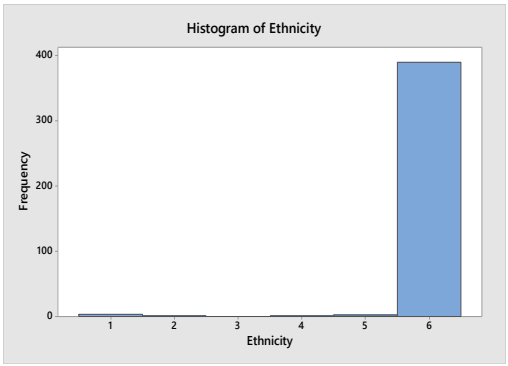
Q38o. Age - Ordinal		Code	Count	Percent	CumPct
20 to 34		1	27	6.85	6.85
35 to 49		2	55	13.96	20.81
50 to 64		3	139	35.28	56.09
65 to 79		4	127	32.23	88.32
80 to 96		5	46	11.68	100
		N=	394		
Skewness	-0.33				
Kurtosis	-0.35				



Q39. Gender		Code	Count	Percent	CumPct
Female		0	214	53.63	53.63
Male		1	185	46.37	100
		N=	399		
Skewness	0.15				
Kurtosis	-1.99				

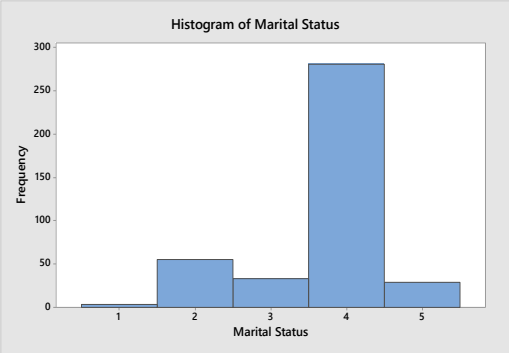


Q40. Ethnicity		Code	Count	Percent	CumPct
More than one ethnicity		1	4	1.01	1.01
Native American		2	1	0.25	1.26
Asian		3	0		
Hispanic		4	1	0.25	1.51
Black		5	2	0.5	2.01
White		6	390	97.99	100
		N=	398		



Q41. Marital status

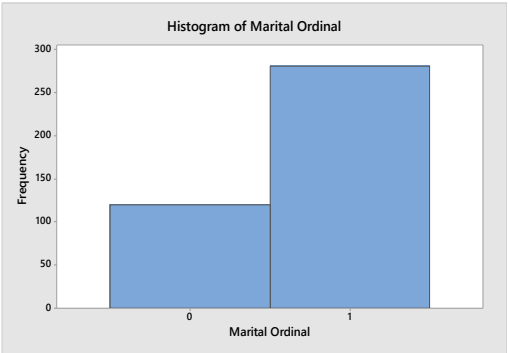
	Code	Count	Percent	CumPct
Domestic partner	1	3	0.75	0.75
Widowed	2	55	13.72	14.46
Divorced/separated	3	33	8.23	22.69
Married	4	281	70.07	92.77
Single	5	29	7.23	100
	N=	401		



Q41o. Marital ordinal

	Code	Count	Percent	CumPct
Not married	0	120	29.93	29.93
Married	1	281	70.07	100
	N=	401		

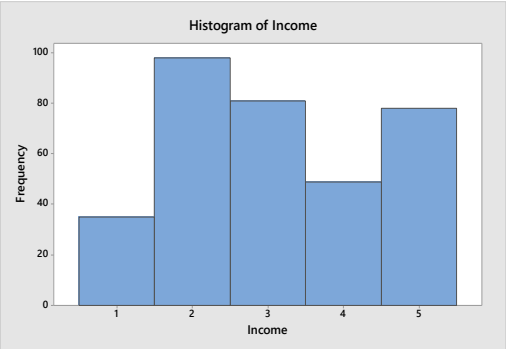
Skewness	-0.88
Kurtosis	-1.23



Q42. Total household income

	Code	Count	Percent	CumPct
Under $20,000	1	35	10.26	10.26
$20,000 to $39,999	2	98	28.74	39
$40,000 to $59,999	3	81	23.75	62.76
$60,000 to $79,999	4	49	14.37	77.13
$80,000 or above	5	78	22.87	100
	N=	341		

Skewness	0.13
Kurtosis	-1.20



Appendix K - Spearman's Rho Correlation Matrix with P-Values

	Aesthetics	Surroundings	Outdoor Amenities	Ease of Purchases	Miles to Goods	Socializing	Historic Roots	Feel Good	Rooted Ordinal	Stuck	Amt to Do	Involved
Surroundings	0.526 0											
Outdoor Amenities	0.388 0	0.427 0										
Ease of Purchases	0.345 0	0.239 0	0.23 0									
Miles to Goods Ordinal	-0.129 0.011	-0.12 0.017	-0.119 0.018	-0.356 0								
Socializing	0.125 0.013	0.192 0	0.196 0	0.168 0.001	-0.143 0.004							
Historic Roots Ordinal	0.089 0.124	0.014 0.807	0.082 0.153	0.077 0.181	-0.039 0.504	0.05 0.384						
Feel Good Here	0.389 0	0.431 0	0.367 0	0.311 0	-0.213 0	0.266 0	0.156 0.007					
Rooted Ordinal	0.272 0	0.299 0	0.233 0	0.227 0	-0.154 0.002	0.186 0	0.356 0	0.613 0				
Stuck	-0.169 0.001	-0.222 0	-0.242 0	-0.188 0	0.107 0.034	-0.144 0.004	-0.012 0.84	-0.437 0	-0.315 0			
Amt to Do	0.32 0	0.325 0	0.318 0	0.456 0	-0.287 0	0.29 0	0.136 0.018	0.435 0	0.323 0	-0.24 0		
Involved	0.261 0	0.249 0	0.243 0	0.188 0	-0.197 0	0.272 0	0.09 0.117	0.389 0	0.342 0	-0.24 0	0.432 0	
Insider	0.281 0	0.263 0	0.259 0	0.22 0	-0.196 0	0.211 0	0.244 0	0.484 0	0.568 0	-0.3 0	0.354 0	0.416 0
Community Spirit	0.414 0	0.35 0	0.32 0	0.292 0	-0.188 0	0.179 0	0.065 0.26	0.556 0	0.378 0	-0.29 0	0.418 0	0.404 0
Belonging	0.315 0	0.328 0	0.275 0	0.244 0	-0.238 0	0.222 0	0.268 0	0.653 0	0.708 0	-0.35 0	0.402 0	0.437 0
Livelihood	0.27 0	0.198 0	0.145 0.004	0.211 0	-0.109 0.031	0.149 0.003	0.084 0.145	0.349 0	0.291 0	-0.14 0.005	0.268 0	0.329 0
State (Nebraska = 1)	-0.186 0	-0.209 0	-0.207 0	-0.158 0.002	0.132 0.008	0.046 0.361	0.084 0.144	-0.106 0.034	-0.025 0.612	0.066 0.184	-0.141 0.005	-0.064 0.198
MSA = 1	0.014 0.78	0.083 0.095	0.131 0.009	0.014 0.788	-0.037 0.459	-0.04 0.43	-0.072 0.213	0.005 0.916	0.02 0.694	-0.02 0.742	-0.011 0.833	-0.054 0.283
Employed = 1	0.013 0.791	0.03 0.55	-0.096 0.055	0.038 0.446	0.064 0.202	-0.127 0.011	-0.059 0.304	-0.007 0.889	-0.048 0.339	0.022 0.657	-0.028 0.581	0.11 0.028
Years Here Ordinal	0.118 0.019	0.069 0.17	0.053 0.294	0.063 0.218	-0.155 0.002	0.091 0.071	0.367 0	0.18 0	0.4 0	-0.02 0.7	0.159 0.002	0.084 0.095
Nearby ordinal	0.07 0.171	0.123 0.015	0.026 0.605	0.097 0.058	0.057 0.268	-0.028 0.587	0.044 0.452	0.028 0.585	-0.044 0.395	0 0.998	0.119 0.019	0.098 0.056
Age ordinal	-0.027 0.599	-0.023 0.653	0.082 0.103	-0.021 0.673	-0.184 0	0.094 0.064	0.194 0.001	0.031 0.539	0.122 0.016	-0.05 0.33	0.063 0.216	-0.077 0.13
Gender (Male)	0.046 0.356	0.051 0.311	0.038 0.45	0.114 0.024	-0.074 0.143	0.011 0.831	0.129 0.026	0.011 0.829	0.063 0.21	0.001 0.988	0.138 0.006	0.081 0.107
Marital Ordinal	0.028 0.58	0.029 0.561	-0.054 0.277	0.003 0.953	0.017 0.734	-0.082 0.101	0.044 0.445	0.038 0.445	0.069 0.173	0.044 0.378	-0.036 0.471	0.13 0.01
Cell Contents:	Spearman rho p-Value											

	Insider	Community Spirit	Belonging	Livelihood	State	MSA	Employed = 1	Years Here	Nearby ordinal	Age ordinal	Gender (Male=1)	Married = 1
Insider												
Community Spirit	0.4220											
Belonging	0.5770	0.4860										
Livelihood	0.4030	0.2860	0.370									
State (Nebraska = 1)	-0.078 0.122	-0.102 0.041	-0.054 0.282	-0.019 0.705								
MSA = 1	0.051 0.315	-0.028 0.575	0.011 0.829	0.005 0.922	-0.20							
Employed = 1	0.012 0.807	-0.021 0.668	-0.047 0.346	0.133 0.008	-0.08 0.122	-0.06 0.213						
Years Here Ordinal	0.383 0	0.091 0.071	0.293 0	0.274 0	0.094 0.061	0.088 0.082	-0.174 0.001					
Nearby ordinal	-0.007 0.886	0.035 0.495	-0.054 0.29	0.094 0.066	-0.09 0.087	-0.11 0.028	0.086 0.092	-0.05 0.324				
Age ordinal	0.107 0.035	0.013 0.794	0.112 0.026	-0.079 0.118	0.071 0.162	0.078 0.121	-0.599 0	0.473 0	-0.078 0.133			
Gender (Male)	0.06 0.232	0.039 0.435	0.059 0.242	0.061 0.227	-0.09 0.078	0.026 0.605	0.06 0.231	0.076 0.136	0.007 0.891	-0.031 0.537		
Marital Ordinal	0.058 0.249	0.039 0.437	0.076 0.127	0.1 0.046	-0.13 0.011	0.015 0.768	0.267 0	-0.06 0.216	0.008 0.869	-0.21 0	0.123 0.014	
Cell Contents:	Spearman rho p-Value											