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RURAL COMMUNITY VITALITY; THE CASES OF FORT BENTON, MONTANA  
AND WATFORD CITY, NORTH DAKOTA

By

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Bachelors of Science, Montana State University, Bozeman, Montana, 2008

Thesis

presented in partial fulfillment of the requirements  
for the degree of

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in Geography

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# ABSTRACT

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RURAL COMMUNITY VITALITY; THE CASES OF FORT BENTON, MONTANA  
AND WATFORD CITY, NORTH DAKOTA

Chairperson: Dr. Christiane von Reichert

There are many rural towns in the United States that are struggling economically. While many suffer population loss through out-migration, others continue to thrive. This project focuses on two rural communities: Fort Benton in central Montana and Watford City in western North Dakota. The research sets out to provide an understanding of how these towns prosper while maintaining their rural lifestyle. The purpose of this study is to explore and identify the efforts carried out by these rural communities to secure the power to live and grow; in other words to remain vital as a rural places. Both communities are geographically isolated areas with modest levels of amenities, but with noted population losses in the early 2000s. The literature recognizes that there are many factors that have an impact on the social and economic dynamics of rural places, suggesting that some rural areas seem to be more vital and vibrant than others. This project utilizes both quantitative data from the U.S. Bureau of the Census and Regional Economic Information System databanks to shed light on demographics and local economies as well as qualitative data from interviews conducted with community leaders. The point is to identify the specific efforts designed to contribute to rural vitality that are undertaken in both communities. The research renders that rural community vitality depends on a comprehensive investigation of the dimensions of economy, population, amenities, and social capital. In addition, it is noted that if communities want to be vital, they will be, and if they do not, they will not. What is learned from the two rural towns could then be considered by other communities and offer examples on how to preserve and promote rural livelihood.

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# Chapter One - Introduction

## 1.1 Problem Statement

Why do some rural towns wither away when others continue to prosper? There are many rural towns in the United States that are experiencing changes in their economies, in their populations, and in their vitality. This project investigates two rural communities, one in central Montana (Fort Benton) and the other in western North Dakota (Watford City) and sets out to explore the factors that contribute to a town's rural vitality.

Further, it explores efforts carried out by these communities to secure the ability to prosper, or in other words, to promote vitality. While there are many definitions of rural used by various agencies, for the purpose of this investigation it is described as remote locations with low populations, low population densities, and engaged in primary sector activities such as agricultural and resource based industries (Bealer, Willits et al. 1965). The origin of *rural* stems from the Latin term *ruralis*, which means open land (Merriam-Webster 2011). *Community* is denoted as "a social group of any size whose members reside in a specific locality, share government, and often have a common cultural and historical heritage," (Merriam-Webster 2011). *Vitality*, in this study, is defined as the "capacity for survival or for the continuation of a meaningful or purposeful existence," and as the "power to live and grow," (Farlex Inc. 2011). Fort Benton and Watford City met the criteria of being rural communities and were identified in a return migration study by Dr. Christiane von Reichert as geographically isolated areas with modest levels of natural amenities as well as population loss in the early 2000s. The towns appear to be suitable for providing insight into the concept of rural vitality. Rural

vitality is a piece of a rural community’s function, change, and how it may fare in the future. When exploring how a rural town, or any town for that matter, operates, different aspects need to be taken into consideration. This study aims to elaborate on vitality by focusing on economy, population, amenities, and social capital. These dimensions are then investigated in the two towns which aids in analyzing their respective rural community vitality. The following figure shows the location of the rural communities that are being investigated.

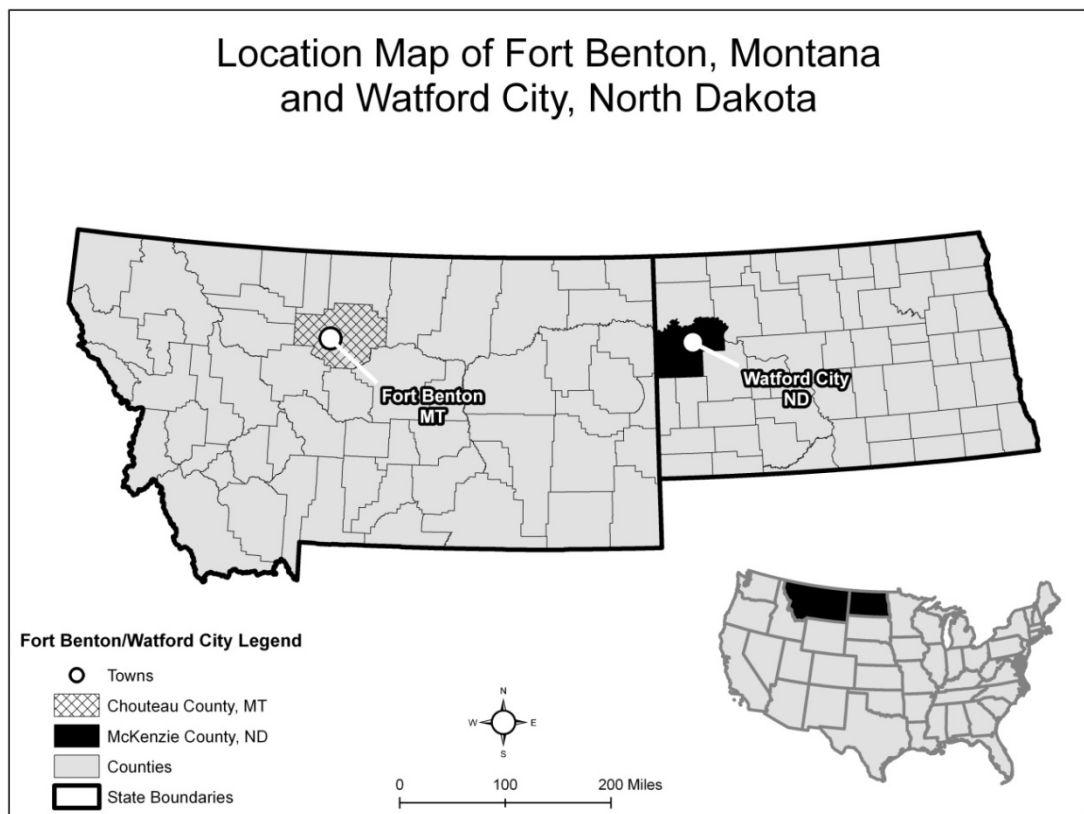


Figure 1. Map displaying the locations of Fort Benton, Montana and Watford City, North Dakota. Map created by Mr. Nate Rogers.

## 1.2 Reasons to Investigate

This study helps to expand knowledge on rural communities and further it explores how these towns are able to remain vital. The information provided by these

towns helps to develop an understanding of what rural communities can look like in the future, and how economic development efforts may be beneficial. The concept of rural community vitality has received little attention in literature. However, there have been numerous studies with regard to rural economic change, population loss, population gain, as well as migration. My interest in this project stems from being raised in a rural community in southwestern Montana that is currently facing similar rural issues.

### 1.3 Purpose

Many factors have an impact on the social and economic dynamics of rural towns and it is through the investigation of professional literature that these were identified. The purpose of this study is to gain an understanding of two towns' vitality (based on the dimensions of economy, population, amenities, and social capital). Figure 2 below depicts a useful framework for exploring a community's rural vitality. It draws on the work of Cook et al., (2009) as laid out in the background section.

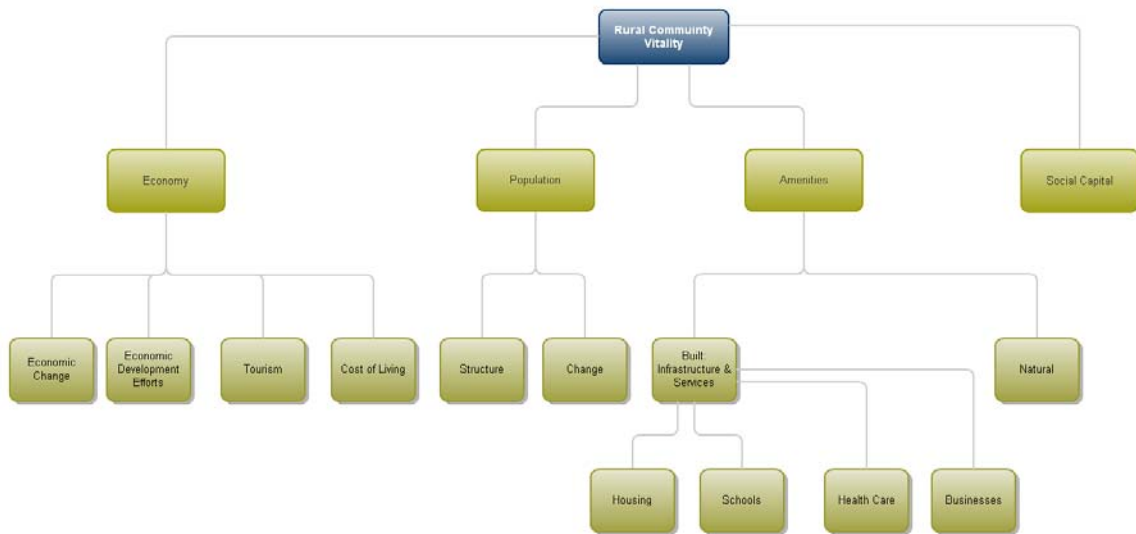


Figure 2. Diagram of the hierarchy of rural community vitality.

Rural community vitality is analyzed through the economy (employment structure, tourism, and cost of living), population dynamics (age structure, migration, birth/death rates of the town and encompassing county), amenities (built and natural), and social capital (civic engagement/community involvement). The research questions concerning these rural towns therefore include: what are the economic strengths of the towns, how are their populations changing over time, what amenities (both natural and built) do they possess, how are people involved in community matters (social capital) and what makes these communities vital and vibrant? It can be postulated that rural towns face certain challenges that require them to take action if they wish to remain vital.

## **Chapter Two - Background**

This investigation of Fort Benton, Montana, and Watford City, North Dakota, sets out to focus on rural vitality, previously defined as “(the) capacity for survival or for the continuation of a meaningful or purposeful existence,” and as “(the) power to live and grow,” (Merriam-Webster 2011). Discovering how these towns function and what the driving forces are will help to better understand their resilience which is the ability to cope with and adapt to change and stress. A key article by Cook et al., (2009) sets the stage for the notion of rural community vitality and aids in structuring the main topics of this paper. While Cook, Crull and coauthors focus on housing, they deal directly with the issues of rural community vitality influenced by economic strength and social wellbeing. Drawing on the framework of Cook, Crull, and coauthors, this chapter elaborates on the concept of vitality as an overarching theme.

### **2.1 Vitality**

Understanding key dimensions and how they sustain and improve rural community vitality is crucial to an areas prosperity (Cook, Crull et al. 2009). “Rural community vitality depends on communities maintaining adequate infrastructure, having access to services, enhancing business and economic opportunities and establishing policy settings to foster outcomes,” (Cavaye 2001:109). By understanding the dimensions, communities will have a better chance at securing future vitality. It is only after an assessment of the following dimensions listed that one will be able to understand overall community vitality. Many times rural communities experience various challenges, such as population and employment change, that they must address in order

to prosper. Everything from the economic composition, to the population dynamics to the level of leadership can be linked to vitality.

Community vitality is important for rural areas because it is commonly linked to a town's continuity. People living in a specific place are usually living there for a reason and would like to see that place remain vital in the future. By addressing the various dimensions of vitality, as explained earlier, it would make it possible to answer the question of, "why do some towns wither away when some continue to prosper?"

## **2.2 Economy**

"Economics is the study of nation states (macro) and the study of the individual consumers and firms (micro). This distinction leaves out an important middle ground frequently labeled as the community," (Shaffer, Deller et al. 2006:59). What economic activities a community is engaged in is highly relevant when determining its overall vitality and outlook for the future. Conroy (1970) looks directly at communities and the economic struggles they endure by being geographically positioned in disadvantaged areas. A remote location means that the rural economy is very important considering that rural areas often specialize in a few key activities and rely on those for employment. The future for rural communities is also important in that it is unlikely that an area will be able to economically sustain itself in the long run without branching out into new sectors for employment opportunities. For instance, a community that relies on a non-renewable natural resource for its employment will have to look elsewhere once that resource is depleted (Power and Barrett 2001). Other rural areas that are better geographically situated might house economic sectors that have a bright future, however; it should be

considered that nothing lasts forever. This is where economic development steps in and helps communities counter employment loss in some sectors by expanding into others.

The current situation and future of rural economies are very important to the people who live there in terms of their lifestyle, amenities, and resources available (Halseth, Markey et al. 2010). Determining economic strength conjointly with the indicators of population change and sector employment (Kansas Inc 1996) will help measure a community's vitality. By making an assessment of what they have, communities will be better inclined to see what they will have for the future.

### ***2.2.1 Economic Change***

In a world that is changing, rural communities must keep up with the influences of globalization in order to remain competitive with other areas that produce similar goods in a cheaper, more efficient way. The increase in globalization creates challenges for rural economies that are struggling to retain their production and consumption base (Woods 2010). Location models address production and distribution and both are important for rural communities (Blakely and Bradshaw 2002). Communities must gain competitive advantage through the marketing of their resources in order to remain vital (Blakely and Bradshaw 2002). Some rural communities specialize in the production of certain goods and services that give them a competitive advantage in global markets. At times though, the cost of transportation may limit a community's opportunities for expanding their market globally. However, improvements in transportation infrastructure has allowed for the distribution of products to become more reasonable.

Deweese, Lobao & Swanson (2003) recognize that rural areas may encounter many obstacles to overcome in their economies in the presence of globalization and technology

change. Small populations, limited professional employment, and resource constraints are all hindrances when it comes to market competition (Deweese, Lobao et al. 2003). On the other hand, rural areas whose economic activities were once restricted to a certain market are now no longer as confined due to improvements in transportation and technological advancements (Vias 1999; Halseth, Markey et al. 2010). With the expansion of broadband internet connections, many rural communities are able to reach a larger market with their goods, as well as access goods from other areas that they might otherwise not be able to. This also allows people to maintain jobs that are based in various areas while living in rural communities. The notion of local sustainability in a global economy is imperative for communities to take into consideration when weighing the costs and benefits of rural lifestyle (Harrington 2010).

A change in population can also affect economic change and vice versa. If an area's population and economy are booming then it can be postulated that the area is thriving and doing well for itself. But if there is a change in population and the local economy is poor, then one could argue that it is a result of out-migration of people, an aging community, or simply a loss of jobs and economic opportunity (Fuguitt, Beale et al. 2002). This can result in a decrease in employment in the largest sectors in a community, which will also render a decrease in the revenue a community earns. However growth is not always for the best. In some rural areas there might be growth in certain sectors which can be positive, but also overwhelming. If a town is well prepared for the increase in employment in that area, then the overall community will benefit. In a situation where employment opportunities increase, but community infrastructure and



housing cannot meet the increase in demand, the benefit of that growth will likely be much less. One way to address these issues is through economic development.

### ***2.2.2 Economic Development Efforts***

Economic development aids in diversifying a community's economic structure while at the same time enhancing its' vitality. Jim Cavaye (2001) lays out four critical components of having successful economic development in a rural community first by having adequate infrastructure, second by promoting business starts, third by implementing policy, and finally by making sure the services the community needs are readily available. Economic development can also benefit from increased community engagement (social capital), recognizing potential issues early, and by awareness and lack of conflict (Loveridge 2000). A town does not have to have all of the components to achieve an appropriate level of economic development, but it stands a better chance of successful development when they are all present. Economic development typically occurs when community members realize that their area has economic needs with untapped opportunities and move to capitalize on those conditions (Shaffer, Deller et al. 2006). Development does not always mean the creation of new economic sectors, rather it can also aim to improve current sectors.

Scott Loveridge (2000) focuses on not only enhancing the economic base but maintaining it at the same time. He points out that a challenge many workers face in rural communities is that they have a limited skill set that applies to a specific job, and when that job ends, they have a lower chance of getting a similar job in the local market. Job creation, however, could help alleviate the problem. Innovation as well as entrepreneurship are important for communities that are competing with others

(Drabenstott and Henderson 2006). The spirit of creating businesses that will be successful in competing with other markets is valuable to rural communities that are looking to diversify their economy.

Using strategies such as tax breaks and incentives also harbor important roles in helping local economies develop (Deweese, Lobao et al. 2003; Cook, Crull et al. 2009). This can attract entrepreneurs who are hesitant to start businesses in an urban area where start up costs are much greater. Efforts to make the community more attractive have the potential to gain the attention of outside employers who are looking for a place to locate.

While economic development often looks for ways to boost employment by attracting employers, attention is also paid to tourism, housing, education, and environment which are all a part of community vitality. At times, in-migration of people with entrepreneurial spirit and dynamic skill sets can also lead to an increase in employment, coupled with enhancing a diverse local economy (Vias 1999; Drabenstott and Henderson 2006). In addition, rural areas that rely on nonrenewable resources will need to think of economic alternatives in order to remain vital as these resources diminish in availability, in importance, or otherwise face stiff global competition. As rural communities experience change in their everyday way of life, many turn to tourism as a solution to attracting people.

### ***2.2.3 Tourism***

Rural communities are increasingly turning to tourism as a source of income and employment (Crouch 2006). Tourism is singled out as an important facet of rural vitality. Tourism offers diversification of the local economy and may be wholesome for a community (Kim, Marcouiller et al. 2005). “Rural tourism and recreational development

results in generally improved socioeconomic well-being,” (Reeder and Brown 2005:2). Given their remote locations, rural towns rely upon measures such as tourism to attract people who will spend time and money in the community. Tourism, among other economic sectors, can represent the future for many rural areas as the industry can add value to the community (Drabenstott and Henderson 2006).

No matter the size of a town or city, the role of tourism is a vastly important component in both a social and economic sense. Rural community economies are very complex systems that are interdependent upon all of a community’s dimensions. Community networking and collaboration is important for the promotion of rural tourism (Cawley 2010). One of the drawbacks of tourism can be the costs of living. Cost of living may rise, while tourist-related wages tend to be low. Tourism can help diminish demographic and economic declines, but cannot solve issues of family dissolution, crime and poverty that are often associated with low-wage jobs that tourism often creates (Albrecht 2000; Reeder and Brown 2005).

#### ***2.2.4 Cost of Living***

People often assume that the cost of living is lower in rural areas than it is in urban areas. Simply, it is a misconception as some rural prices are lower while others are actually higher and the differences between rural and urban locations can explain this fact (Zimmerman 2008). People in many rural communities are disadvantaged by having to pay more for goods and services that are often associated with travel costs. On the other hand, land and housing costs are typically less (Besser, Recker et al. 2009). An overall assessment of local cost of living includes: goods and services, health care, transportation, utilities, and housing. If community members are satisfied with the living

conditions, then the potentially high cost of living in exchange for a better vitality often seems like an acceptable tradeoff; this is typically referred to as an assessment of one's standard of living or as "amenity compensation" (Veenhoven 1994; von Reichert and Rudzitis 1994; Zimmerman 2008). People may value a quieter, more peaceful environment and feeling secure, however, having access to health care is of top importance when living remotely. Some people might feel uncomfortable living in areas with populations of high concentration, but also may be in a better location for medical attention.

The cost of living is related to vitality as living costs affect a community's standard of living. This is often a hard concept to measure numerically as people have different perceptions of living standards. It could be argued that a lower cost of living might provide a better standard of living, but on the contrary, people who have a higher cost of living might also have a better standard of living. For instance, if someone is living in a rural area, they will typically have lower rent and higher prices for goods and services, but will also enjoy the wide open spaces and tranquility that rural living offers, hence a better standard of living. On the other hand, if someone is living in an urban area, they usually have higher rent and lower prices for goods and services, but will enjoy the availability of urban amenities, hence a better standard of living as well. To carry this study further, community vitality not only relies on economic conditions, but also on the population of the people that live in those communities.

### **2.3 Population**

Viable communities are defined "as those that provide basic every day services and maintain a stable or growing population," (Cook, Crull et al. 2009:121). The

population dimension is part of the rural community vitality circuit where everything is connected and affects the other. Simply adjusting one part of the circuit affects the rest by creating a domino effect. For instance, if a population grows it will put a higher demand on infrastructure, town services and so on. On the other hand, a declining population shrinks the employment base, tax base, leadership and more. Rural demographic change is of utmost importance and is shaped by demographic components of change: natural change (births and deaths) and the migration component (in-migration and out-migration) (Klosterman 1990). Populations grow and populations shrink which means communities need to respond to the changes.

Rural population loss can be attributed to those areas having a location away from metro areas, low population densities, and a low level of natural amenities, if not amenities in general (McGranahan and Beale 2002). This population loss is often the result of people leaving an area to seek amenities that are commonly associated with higher vitality and with some a higher standard of living.

An aging population with little growth in the younger generation usually spells upcoming difficulties for local labor forces and economies (Kansas Inc 1996). This fact, coupled with out-migration, only makes a complicated situation worse. “No single factor is more important for local government planning than the size and composition of a region’s population and the way it will change in the future,” (Klosterman 1990:51). How a population changes has a profound effect on how community development responds. If a population is growing, it usually puts more demands on new economic development to meet increasing needs. Reversely, if the population is declining, economic development has a goal of trying to retain a shrinking population while

sustaining the economy and community. No matter what population change happens in a rural community, it is a juggling act of trying to manage both demographic and economic change at the same time.

## **2.4 Amenities**

Amenities affect people's decisions to work and live in certain areas and not in others. "Amenities are site- or region-specific goods and services that make localities more or less attractive to agents," (Whisler, Waldorf et al. 2008:60). At times the level of amenities available will take precedence over economic and social dimensions as the predominant feature that a community has to offer. Amenities are also similar to the concept of standard of living where people have different perceptions of what desirable or necessary amenities are. Some might feel that having access to health care is important where someone else might feel living next to a river, a lake, or mountainous areas for recreation is of greater value. As a population ages, priorities change, and with that the type of amenity demand changes also. Some rural communities have the amenities that people desire, whereas others may not. This, coupled with the cost of living, can help explain why people are attracted or repelled by different rural communities (Power and Barrett 2001).

### ***2.4.1 Built Amenities: Infrastructure & Services***

Vitality in an area is generally enhanced by people having access to housing, schools, medical services, stores, restaurants, and entertainment (McGranahan and Beale 2002). Whether a town has a movie theatre, sporting events, or some other form of entertainment is very important to many rural communities as well. Florida (2002) points out that having such amenities available not only makes the community a pleasant place

to live, but also helps create economic benefits (Besser, Recker et al. 2009). In addition, some amenities take place in a social setting that allows for individuals to connect and create bonds with one another. A large part of the economy and economic development relates directly to the infrastructure available in a community, especially to housing.

In order for rural communities to thrive, they need to be able to make sure people have housing options (Yust, White et al. 2005). The reason housing is singled out is because of its connection to the other dimensions of rural vitality. The lack of housing in rural areas presents challenges as it makes it difficult for people to move into a community where other opportunities are available, for instance, employment (Milbourne, 2006). Most development in these towns remains dependent on the infrastructure that is available as a starting point to sustain their community. As stated by Gober, McHugh and Leclerc (1993), amenity locations are job rich and housing poor, which translates into having to commute for employment. However, as seen over the last few years, an increase in the price of gasoline makes it too expensive for people to commute longer distances.

Issues of town planning and policy codes are also of importance in infrastructure development (revitalization) as they can influence vitality through the availability of resources (Salamon 2003). Land use planning is rather difficult when communities are uncertain about their economic future. In addition, the availability of housing can either make or break the local economy when trying to attract potential employers (Cook, Crull et al. 2009). Meeting the need for housing is just as important to a community as having adequate infrastructure of transportation and telecommunications.

Even if adequate housing is available, the next issue is affordability (Gober, McHugh et al. 1993). If people have household incomes too low to pay the monthly cost of their dwelling, then it is likely that those people are seeking residence elsewhere (Ziebarth, Prochaska-Cue et al. 1997). Housing in low income rural regions needs to be affordable, as well as meet certain quality standards in order to attract and maintain a population that can work in the local economy. Another part to built amenities consists of schools.

Education and access to schools also improves an area's vitality, and there are many issues related to this topic as well. The ability of rural districts to levy taxes for school programs and quality instruction is often limited (Reeves and Bylund 2005). Annual salaries for educators in rural areas are much lower than they are in urban centers. This results in having a higher turnover rate of teachers as many of them fresh out of college will take any job that is provided for them, but will eventually move on to better opportunities elsewhere. This puts strain on administrators and students who are seeking a stable learning environment. Occasionally, rural schools might have cases where teachers move in to the community not seeking economic gain, but for the access to the natural amenities that are available. In addition, older teachers who are approaching retirement, might seek out the rural lifestyle in which to retire into upon completing their role as an educator. So these rural towns would then attract older teachers, however, they would only be teaching for a short period of time. The next dimension to built amenities is health care.

Health care is a topic that has gained attention in rural areas; more notably in aging communities. If adequate health care is available for the local population, people



are more likely to stay in that location. However if it is not, they will move to areas where they can receive proper care. Physician retention is one of the largest issues that the health care sector experiences in rural areas (Cutchin 1997). Similar to the issue with the turnover rate of educators, physicians too will fill medical positions in areas where salaries are greater, unless salary is not a factor in the physician's decision to be located rurally. Just as important as health care are emergency services, which include the availability of emergency medical technicians and fire suppression. No matter what type of service individuals seek, one thing is certain; access to medical care is always important.

Stores and restaurants are not only part of the economic sector, but also serve to provide a community with access to goods. Further, they provide places for people to socialize and form bonds while shopping and dining. These amenities are so much a part of everyday life that at times we probably do not recognize their importance until they are not readily available. At times when stores and restaurants are available but the cost is too great, people travel to the nearest urban center to take advantage of lower prices. As a result, this will increase local prices further, often resulting in business closures. A community would be able to avoid this through effective planning and by promoting shopping locally. Over time, as people have become wealthier and with the development of technological advancements, the reliance on services has become greater. Having these amenities readily available in one's community increases their vitality by not having to travel long distances to obtain goods and services that are not present.

### ***2.4.2 Natural Amenities***

Natural amenities include a variety of features ranging from landscape, to hiking trails, to parks, to various water attractions and local climate. In addition to these, national parks and recreation areas are recognized as being two of the most important features. Not only does the availability of natural amenities help retain a community's population, but also helps draw tourists who may be a boost to local economy. Natural amenities have notable effects on population, employment, and on the amount of income (Kim, Marcouiller et al. 2005). Natural amenities typically attract two demographic groups; retirement populations and those seeking recreation (McGranahan 1999).

In a study conducted by David McGranahan (1999) on how natural amenities drive rural population change, he found that natural amenities have the power to attract a population, but only a fraction of that population will reside in that area year-round. This can be attributed to the cold winters that most natural amenity regions experience, with the exception of those areas located in lower latitudes. Some people want to reap the benefits of natural amenities but only for a season. Depending on the months those people reside in a particular area; it can affect the reporting of population numbers for that area. Employment for natural amenity areas is also affected by the seasonality. This is the result of tourist based attractions such as national parks, lakes, or other amenity features where employees are only needed during the season of operation. The climate an area has is at times a determining factor of whether or not people are attracted to other natural amenities. Especially harsh weather conditions tend to counter the appeal of other natural amenities such as scenic landscape, lakes, recreational opportunities and the like.

All in all, no matter what the type of amenities rural communities have, there is usually some level of attraction.

## **2.5 Social Capital**

Social capital for the purpose of this investigation is defined as the level of interaction people have with one another, as well as their overall community involvement (Besser, Recker et al. 2008). This can play a significant role in determining how successful a rural town can be at preserving its vitality. For a community, a high degree of social capital is reflected in high levels of community involvement and civic engagement, all of which contribute to rural vitality. The best way to understand social capital is to analyze how well community members have worked together in the past as well as the in the present (Flora, Flora et al. 2003). The emotions, passions and values that rural people have with one another are directly linked to the success of the town (Cavaye 2001). The decision-making ability a community has depends on how well members get along with each other as well as their ability to recognize problems in their economy as they arise (Shaffer, Deller et al. 2006). How a community then, in turn handles those problems is crucial to determining their future vitality. If it is a proactive community, they are likely to be more successful than a passive community who might just hope for issues to resolve themselves. Typically, the more active a community is, the higher the social capital and the more likely successful development efforts will be carried out (Deweese, Lobao et al. 2003).

The strength of bonds among community members often reflects the type of community leadership which relates directly to the cohesiveness of economic development (Sharpa, Agnitsch et al. 2002). The importance of movers and shakers in

the communities and how they play a leading role in initiating community engagement is recognized by O'Brien et al., (1998). Cohesiveness, trust, and communication among individuals is crucial for a strong and flourishing vital community (Marquart-Pyatt and Petrzalka 2008). The literature on this topic cannot stress enough the importance of community cohesiveness for appropriate development (Storey 2010). When people are well connected to a rural place, they are typically well connected to each other. There are instances of where some people in the rural community have strong opinions as to how to deal with challenges, but they should recognize that they are a part of the encompassing rural community as a whole (Sibley 1995). Flora, Flora and Fey (2004:52) note that “communities can build sustainable social capital by strengthening relationships and communication on a community-wide basis and encouraging community initiative, responsibility, and adaptability.”

Cavaye (2001) highlights the importance of community values, confidence and overall unity which will reflect the potential vitality an area has. The role of the local government in this is also valuable. “Communities need access to key individuals with rural development expertise and community trust...(the) access to networks has also allowed communities to gain ideas, build confidence and accelerate local initiatives,” (Cavaye 2001:115). A study conducted on “Housing Decision Chain and Community Vitality,” by Cook, Crull and coauthors (2009:127) also found leadership to be one of the strongest indicators of community vitality, followed by businesses, housing change, services, and county vitality respectively.

While it is important to understand the previous literature that has been written on the rural community vitality dimensions, it is also important to go beyond that literature

with current qualitative data (transcripts) and quantitative data (United States Bureau of the Census and Regional Economic Information System raw data). This study not only explores the concept of rural community vitality in Fort Benton, Montana, and Watford City, North Dakota but also provides a detailed investigation following the dimension structure referenced earlier.

## Chapter Three - Methodology

### 3.1 Overview

This research sets out to gain a better understanding of the concept of rural community vitality. As argued earlier, rural community vitality can be determined in terms of economy, population, amenities, and social capital. A mixed methods approach was used consisting of publicly available quantitative data and qualitative interview data. For interviews, selected community members were asked a series of questions which were tailored to learn about their community and lifestyle.

### 3.2 Study Area Description

For this thesis I am focusing on two communities: Fort Benton, Montana and Watford City, North Dakota. These towns were chosen as they are well suited to explore rural vitality. They meet the criteria of being rural and are of similar size. As shown in Table 1, the population of Fort Benton in 2000 stood at 1594, and the population of Watford City was 1435. By 2010, Fort Benton had lost 130 persons, while Watford City grew by over 300.

**Table 1. Town Populations.**

| Town                          | 2000 population | 2010 population | 2000-2010 change |
|-------------------------------|-----------------|-----------------|------------------|
| Fort Benton,<br>Montana       | 1594            | 1464            | -130             |
| Watford City,<br>North Dakota | 1435            | 1744            | 309              |

*Source:* United States Bureau of the Census

This change in population can be attributed to several factors that will be addressed below. These towns have undergone change in their economic structure and population. In terms of comparability, both towns share similar climatic zones as both are located along the 47 degrees north latitude. As shown in Figure 3, Fort Benton and

Watford City have a semi-arid climate with cold, dry winters, wet springs and hot summers.

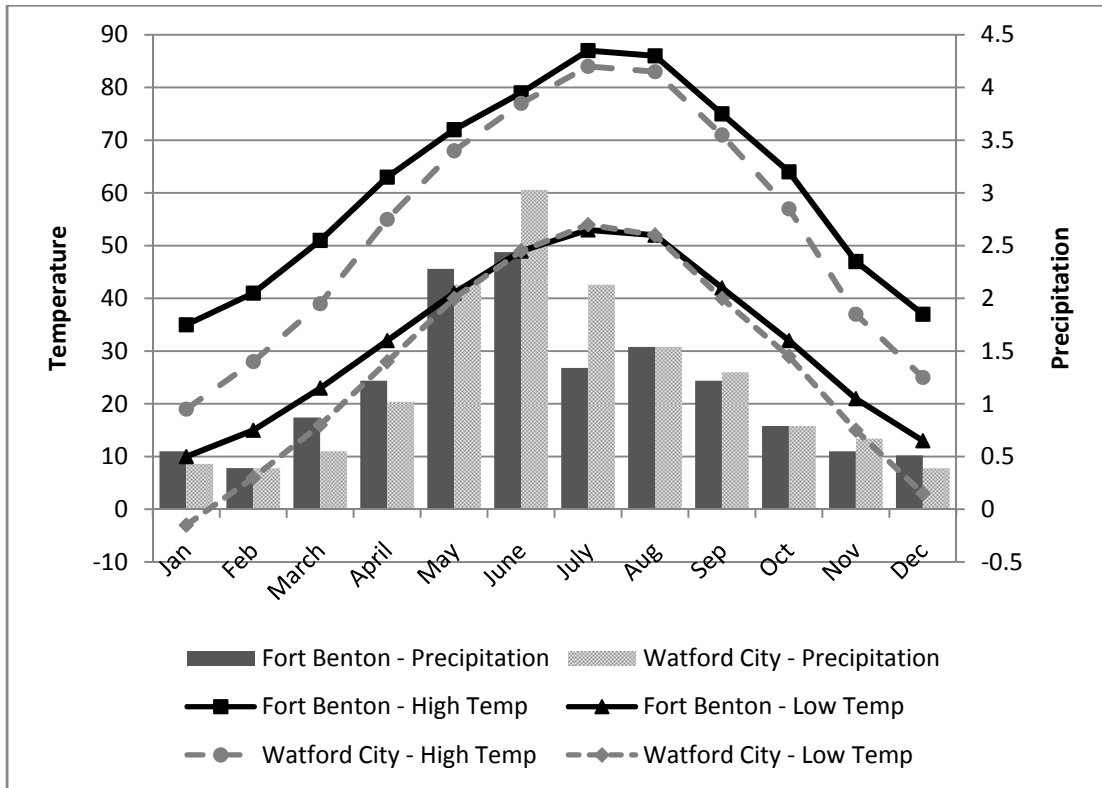


Figure 3. Fort Benton and Watford City climate graph. See Table A.1.

The purpose of this figure is to show the climate similarities for the two towns. Fort Benton is in a geographic area that is known as the “Golden Triangle” which stems from the area’s strong wheat production. Watford City on the other hand is known for the presence of oil. According to data from the North Dakota Oil and Gas Division, McKenzie County (in which Watford City is located) produced 821,705 barrels of oil in May 2009, just shy of the 838,776 barrels that were produced in August of 1991 (McKenzie County).

The historical contexts of these towns are important as well, since both were founded at different times. Fort Benton was erected in spring of 1847 as the last fur trading post on the north side of the Upper Missouri river (Fort Benton Restoration

Committee). The town was named after Senator Thomas H. Benton of Missouri and was commonly known as the “head of navigation” on the Missouri river (Chouteau County Montana). The following excerpt stresses the significance of the town as a transportation hub in Fort Benton’s history:

We have the fur trading post. As the fur trade was dying off, gold was discovered and at that same time Fort Benton became the head of navigation on the Missouri river and so we became the center of transportation for the whole North West. We went through that phase and then as the gold, as the placers ran out, it started the hard rock mining. Still everything came by steam boat because it was the best route. I mean it was quicker and they could haul more and so forth. During the gold rush, eighty percent of the people that came and went for the gold rush, came through Fort Benton and probably seventy-five percent of the freight came (on the boats). Then there was the opening up of Alberta and Saskatchewan and they could ship things up the river cheaper and haul into Canada cheaper than they can bring it across the prairies in Canada. So we became the chief supplier. The two big Fort Benton companies, TC Power and IG Baker, both had stores and warehouses and ran freight and so forth into Canada. You know during that period of time, that is when they called us Chicago of the Plains because we were the transportation. Everything was coming here and being dispersed across Montana. At the same time the railroads were moving closer and killed the steam boat trade. We had the open range cattle movement out of the mountains in the late 70s, [and] this whole area became open range cattle and the rail heads were still close enough that they could drive in (citizen of Fort Benton).

Watford City owes its creation to speculative men in 1913 who located themselves in that specific spot in anticipation of the coming Great Northern Railroad. Town lots were sold in 1914 and construction of buildings happened shortly thereafter. Watford was named after Watford, Ontario by Dr. Vaughan G. Morris and the “City” was later added to the name to distinguish itself from another town in North Dakota (Kosmix Corporation). The following excerpt addresses the context for early settlement in Watford City:

Ranching probably [came] first, trappers and that type, in the late 1800s and then cattle from Texas came up. The Long X cattle trail from Texas, after the Civil War, boys came home from the war to Texas, heard about all the grass up here.



So they brought all of these long horn cattle from Texas up into North Dakota and Montana. And then settling started actually quite late in this area in comparison to Kansas, Oklahoma. We were being settled probably 1904 to 1913...which was actually quite late. But then for them to...build anything it was shipping it in on the rail, had to take a ferry across the river to bring it here and then haul it on their wagon to who knows where. There were no trees, so a lot of lumber was shipped in from Chicago...[there were ] some trees on the river bottoms...some trees they said they brought up from the Badlands...and then the sod, you know the start up was sod (citizen of Watford City).

While similarities and differences between these areas can be identified, a direct comparison is not the intent of this work. Instead, Fort Benton and Watford City should be viewed as being places that are representative of other, similar, places within the larger framework of rural communities.

### **3.3 Research Design**

#### ***3.3.1 Data Gathering***

For understanding the vitality of rural communities, one needs to understand:

- What are the economic strengths of the towns?
- How is their population changing over time?
- What amenities, both natural and built does a community possess?
- How involved are people in community matters (social capital)?
- What makes these communities vital and vibrant?
- What is the future of these communities?

To help answer these questions about Fort Benton's and Watford City's community vitality, this study utilized a mixed method approach which employed both quantitative and qualitative sources. Quantitative data were gathered from both the U.S. Bureau of Census and Regional Economic Information System (REIS) databanks to investigate a town's employment and population dynamics. This information is used to

address the issues of economic and population change across time. The 2008 economic data from REIS is used to assess employment numbers per sector. The 2010 Census population data are used to assess the population structure of the towns' encompassing county as well as the most recent recorded population numbers of the towns.

As equally important to quantitative data are the qualitative data that consist of interviews conducted with community leaders in the summers of 2008 and 2010. Interviews greatly strengthen the analysis by providing significant insight to the towns that might not be represented in the quantitative data. Interviewees during both visits included mayors, economic development professionals, business owners, historians, city council members, principals, and involved citizens. In 2008, von Reichert and Ryan Arthun (a research assistant at The University of Montana) visited these towns to investigate return migration. The interviews they conducted included questions about the community that were applicable to this vitality study. Six interviews were conducted in Fort Benton with Dr. von Reichert's project and ten in Watford City. Permission was asked of the 16 participants of both Fort Benton and Watford City who took part in the 2008 return migration project to use relevant interview segments for the present study on rural vitality. In order to examine rural community vitality in 2010, I also travelled to Fort Benton, Montana and Watford City, North Dakota to conduct interviews. I spent total of two days in Watford City and four days in Fort Benton to connect with key informants. Interviews in 2010 consisted of four key interviews in Watford City with additional comments made, and three key interviews in Fort Benton, with other various conversations noted in recorded reflections. These interviews supplemented with my

recorded field notes rendered 16 transcripts for Fort Benton and 24 transcripts for Watford City.

These interviews are key pieces in contributing to the understanding of the dimensions of rural vitality in that they provide insight that is equally important as the available quantitative data. Interviews help shine light on economic, demographic, amenity and social capital components when quantitative data may be incomplete or lacking. This is important for analysis where specific variables are used to assess the strengths of community vitality.

The questions used to guide the 2010 semi-structured interviews were:

- How long have you lived in this town and describe the changes that you have seen over time in Watford City (or) Fort Benton?
- What, in your judgment, makes Watford City (or) Fort Benton vibrant?
- Are there efforts being put forth to enhance Watford City's (or) Fort Benton's vitality and what are those efforts?
- Are there additional efforts that should be made?
- What are your views on the current amenities (medical, education, retail, entertainment) and natural amenities (outdoor recreation) and how important is the access of these amenities to you and the community?
- What do you see the future of Watford City (or) Fort Benton being and do you plan to have a role in that future?

The questions used in the 2008 return migration project were similar, but somewhat different as the research focused on return migration. Those questions were:

- What are the strengths and assets of the community?

- What are the challenges the community is experiencing, and how do they relate to return migration?
- What is the vision of the community and how is that vision being shaped?

A pilot test of my questions was not conducted, but the interview questions were submitted to my thesis committee members and then to The University of Montana's Institutional Review Board for approval. These questions served as starting points for the conversations and were not solely limited to the six main points. In many instances the participant expanded the dialogue into topics beyond the scope of the questions. On-site field observations such as thoughts and impressions were also collected and noted when exploring the other quantitative and qualitative data.

### ***3.3.2 Ethical Considerations***

Given the scope of this study, ethical issues needed to be considered. The first step was for me to complete an ethics course through the Institutional Review Board which explained how to approach and interact with human subjects as well as handle the information that they provided. The other course I completed was through the Collaborative Institutional Training Initiative on Responsible Conduct of Research that addressed social and behavioral responsible conduct of research. The consideration of ethical issues was required to ensure the privacy and confidentiality of the participants. Among the most important issues that were considered in my interviews were consent and confidentiality. Consent was obtained by having the participant read an overview of the project which included all important details of the study, as well as asking for permission to audio record the conversation for quality control. It was also noted that they had the right to not answer any question and withdraw from the interview at

anytime. The confidentiality of the participants is also reinforced by informing them that their names or personal information will not be disclosed at any time and that digitally recorded and transcribed interviews would be kept secure and not publically shared. In addition, only the information relevant to understanding rural community vitality is being used.

### ***3.3.3 Data Processing***

With regard to the mixed methods approach, this study allows for the quantitative and qualitative data to cross-reference each other which, aids in the assessment of rural community vitality. In terms of quantitative data, the raw economic data collected are primarily at county level as a result of availability. These data were obtained and then imported into Microsoft Excel where the data could in turn be represented in tables and graphs. This is particularly helpful when analyzing a county's economic structure by employment numbers which signify strengths/weaknesses and changes over time, as well as the population parameters including change in total local and county population, number of people per age cohort over time, births, deaths, and net migration. The representation of numeric data in tables and graphs makes interpretation easier through visual representations.

The counterpart to the quantitative data discussed above is qualitative data consisting of transcripts of recorded interviews and reflections. The digitally recorded interviews and reflections were transcribed using Express Scribe, a free software program that allows for the importation of audio files for one to listen and type the audio into text format. The conversations were then coded using NVivo, a software that is designed to assist in organizing text data and identifying themes. This coding process occurred in

late February and early March of 2011. NVivo software allows free nodes that provide a flexible coding structure in which key themes related to the specific research questions emerge and a coding structure can be created. These themes are based on the interview questions that were asked as well as on additional insights informants provided. Once the quantitative and qualitative data were obtained and put into the proper format, community analysis could ensue.

## Chapter Four - Results

Figures 4 and 5 below reflect the themes that emerged from interviews in Fort Benton (Figure 4) and Watford City (Figure 5). While some of these themes were unexpected and arose as a result of the conversations that occurred interviews, others were expected based on the prompted questions. The percentages for the themes were calculated by taking the number of coded references for the specific theme then dividing them by the total number of references for all themes and then were multiplied by 100. As the following pie graphs depict, there is considerable overlap in themes discussed in the conversations and the dimensions emphasized by Cook et al., (2009).

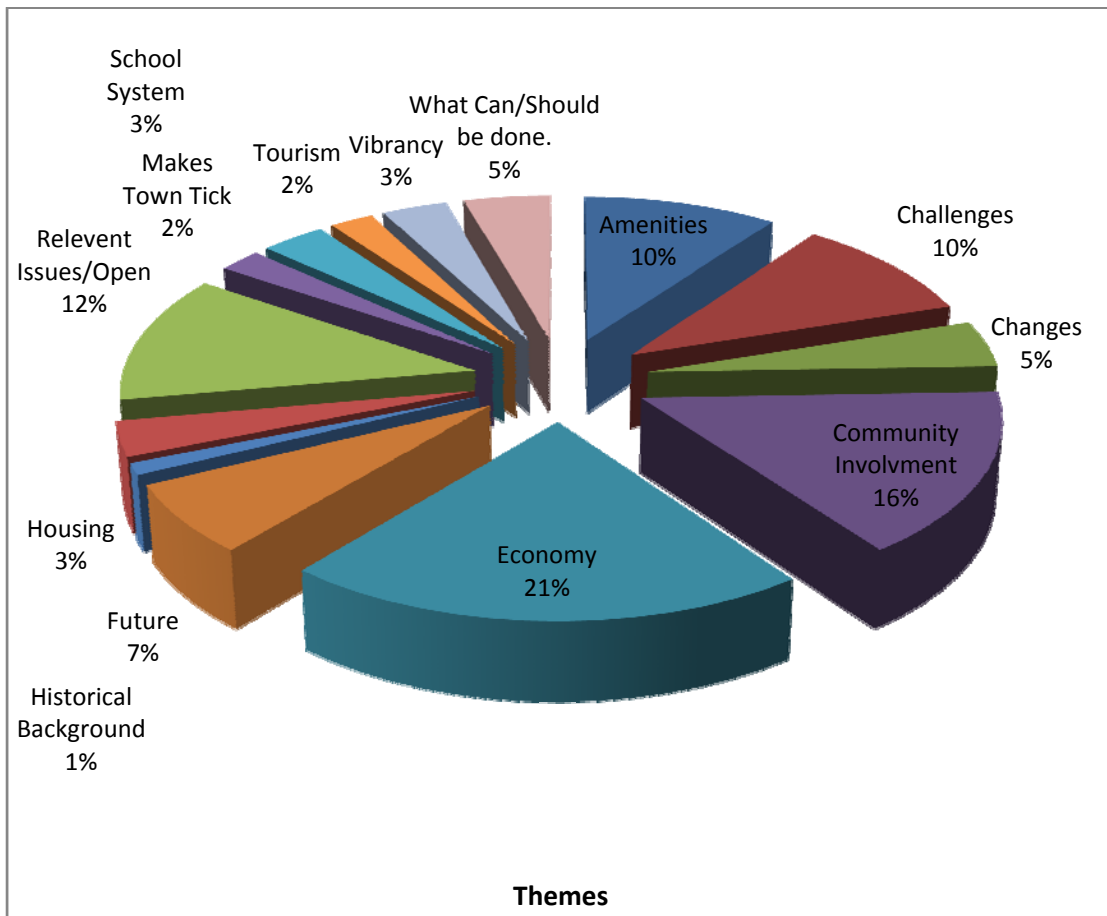


Figure 4. Occurrence of themes in Fort Benton transcripts. See Table A.2.

In the Fort Benton interviews, the economy theme was most frequently discussed, followed by community involvement, town issues, community challenges, amenities, and the future. These dimensions are very important to the residents of Fort Benton; which can be seen in the following sections.

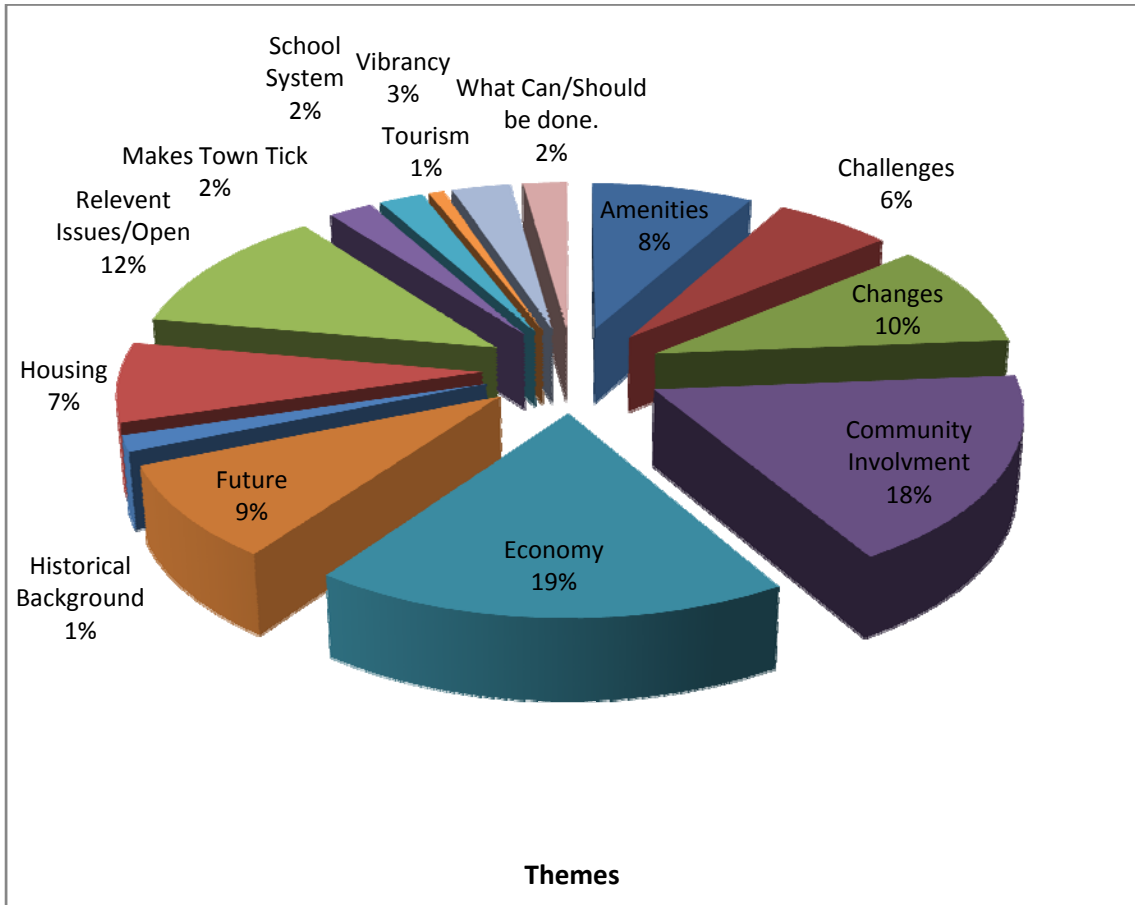


Figure 5. Occurrence of themes in Watford City transcripts. See Table A.2.

Despite Watford City and Fort Benton having different matters to deal with, it is remarkable how much resemblance there is in the occurrence of themes from interviews in both communities. There are only small differences between the two pie graphs which strengthen the notion that while rural communities may have their own situations to contend with, the dominant themes in rural areas are similar. Similar to Fort Benton, in Watford City, the dominant theme across all interviews was the economy, followed by



community involvement, town issues, community changes, the future, and amenities available. The themes that were expected for both towns as a result of the questions asked were: amenities, challenges, changes, community involvement, future, vibrancy, and what can/should be done. However, the themes of economy, housing, school system, and tourism were unexpected and were recognized as reoccurring themes for both towns.

The importance of these themes in conjunction with the dimension structure provided by Cook et al., (2009), prompts the best way to tell the story of rural community vitality in these towns. By arranging the result topics in the same fashion as the literature review, it makes it easier to understand how the research conducted pertains to the notion of vitality. Metaphorically speaking, the literature provides a skeletal frame in which the results (quantitative and qualitative data) add the muscle and tissue. To explore the data further, various quotes that emerged from the themes are implemented in the appropriate following sections. The quotes were not incorporated based on convenience rather were meaningful insights that arose during the conversations with community leaders. With economy being the most dominant theme in the transcripts from both towns, it is only appropriate that it is the first dimension that is discussed.

#### **4.1 Fort Benton and Chouteau County**

Even though this investigation pertains to the town of Fort Benton, information for Chouteau County, where Fort Benton is located, is also provided in order to help explain what is happening in the region. The conditions in county and town are shaped by the other making for mutual interdependence. An understanding of Fort Benton requires an understanding of Chouteau County as the area surrounding it. Logic

recommends that Chouteau County is taken into account in a study involving Fort Benton. Additionally, some public data are more readily available at the county level.

#### 4.1.1 Economy

The dominant economic activity in Chouteau County is agriculture, as shown in Figure 6. Local government, retail, health care, accommodations, and other services are noteworthy as well. Even though this economic profile is at the county level, it also serves to represent activities in Fort Benton.

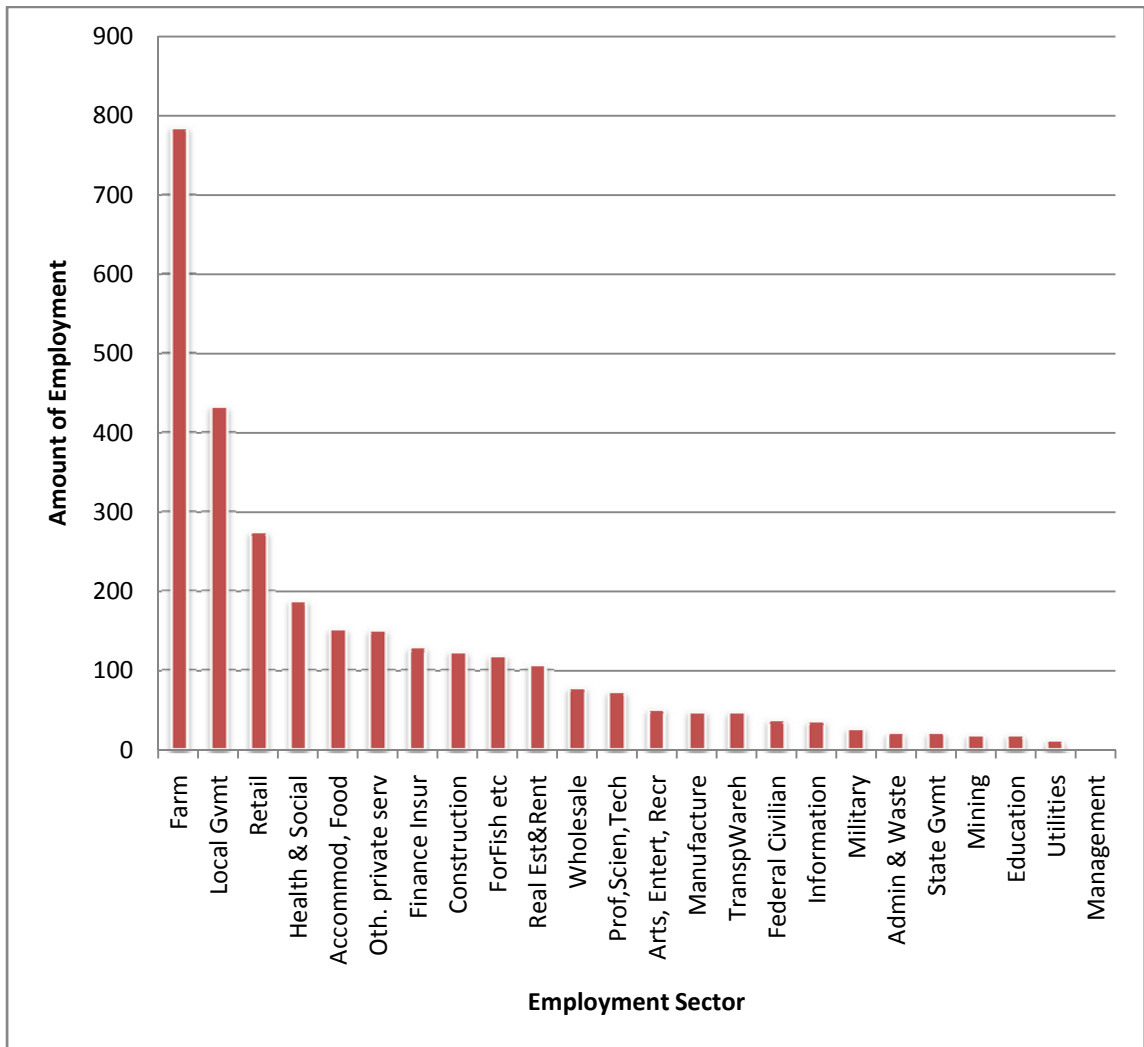


Figure 6. Chouteau County employment per sector 2008. See Table A.3.

Simply looking at Chouteau County's landscape makes it quite apparent that agriculture is a driving factor in the local economy. In an interview with one of the town's residents, Chouteau County's role as a major wheat producing county in the United States was noted:

I haven't read lately, as late as of 1990, we were one percent. So, one of every hundred bushels produced in the United States was produced in this county. That is a lot of wheat (citizen of Fort Benton).

Stemming from agricultural activities is Fort Benton's grain processing facility that produces and exports organic flour and grain. Montana Flour and Grains, an important player in Fort Benton's manufacturing sector, is very proud of the fact that its organic grain is sold worldwide, as mentioned on its webpage (Enterprises 2011.) Income from agricultural based activities is essential to the community, but so are the other sectors that comprise the economy.

Local government, retail, and accommodation sectors are also of importance, with retail and accommodation commonly associated with the tourism industry. Tourism turned out to be a reoccurring theme in the interviews as one Fort Benton resident recognizes that "another big component of Fort Benton, besides the agriculture where most of the employment is tourism related," (citizen of Fort Benton). The tourism dimension will be discussed in greater length later on in this chapter.

Another way to identify relatively important sectors in Chouteau County is to compare employment shares of Chouteau County with those of the United States by using location quotients. Location quotients show a local sector's employment in relation to the United States sector. A location quotient with a value less than one suggests that local employment (Chouteau County) is less than what would be expected in comparison

to the larger reference region (United States). A value equal to one means that local employment is what would be expected and a value greater than one suggests that local employment is greater than what is expected in comparison to the reference region.

As seen in Figure 7 below, the farming sector, with a location quotient of eighteen, is highly over-represented in Chouteau County. The forestry-fisheries sector is also relatively large. Employment in local government is greater than average as well.

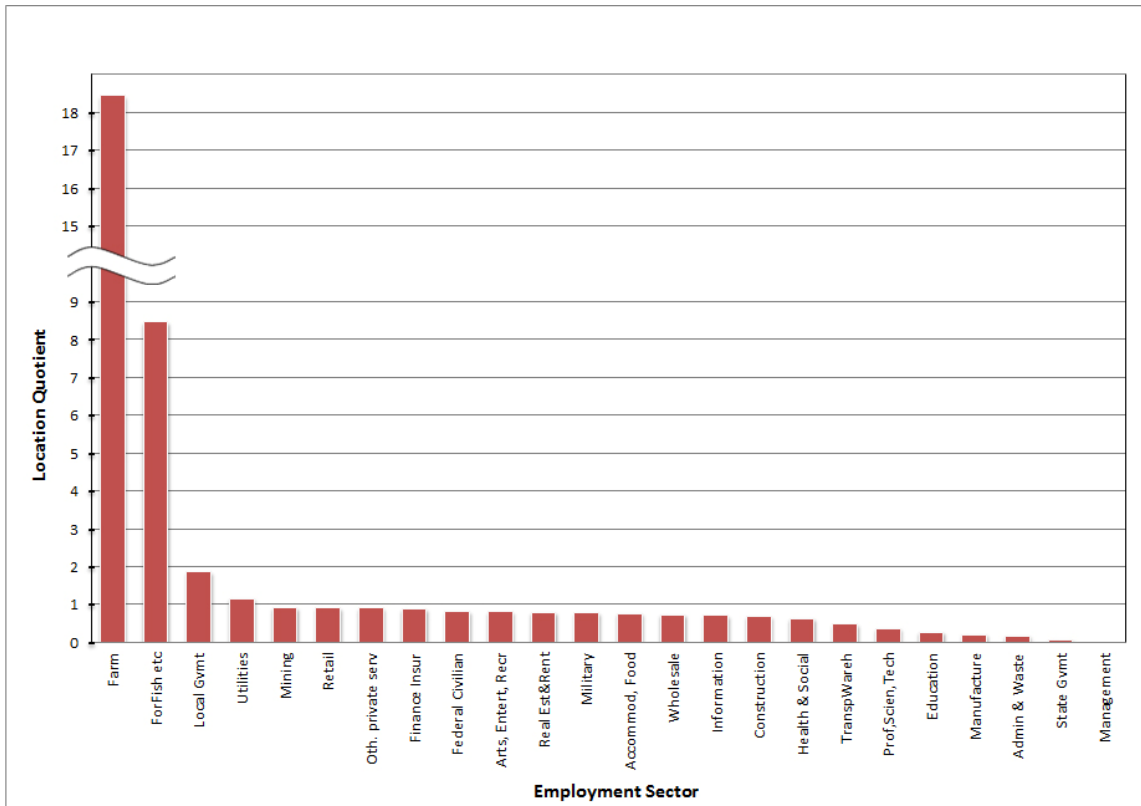


Figure 7. Chouteau County location quotients of sectors in 2008. See Table A.4.  
 Note: This graph appears different from other graphs in the text as a result of the y-axis being edited to show the importance of the sectors with location quotients near a value of one.

A location quotient value of greater than one suggests that output from that sector is likely exported to other areas. The significance of the farming sector to Chouteau County’s economy is made apparent in this figure. Forestry and fisheries, while over-represented, do not employ as many people as the farming and local government sectors. The local government jobs in Fort Benton range from various county administrative

positions, to library staff, to the county highway maintenance crews, to the school which all play a significant part in the economy. The local government sector is typically relatively large in rural communities because it takes a certain (and minimum) number of employees to provide local government services. Small towns cannot benefit from economies of scales in local government, and that results in high employment shares. Other sectors have relatively low location quotient values but still have importance to the rural community in that every job matters.

Another way to recognize the sectors which are contributing the most to the rural economy is to examine the value of the products or income produced per sector. For this study, income was not directly analyzed, but it is acknowledged. Of more relevance is employment per sector, hence employment, not income data were presented.

#### **4.1.1.1 Economic Change**

The change over time that is occurring in a rural communities' employment structure is crucial for an area's future vitality. By using data from the REIS, employment change from 2001 to 2008 for Chouteau County was calculated for the different sectors. In the case of Chouteau County, change is happening in most sectors (see Figure 8 below). Very important are changes in sectors which employ the most people (see Figure 6 above).

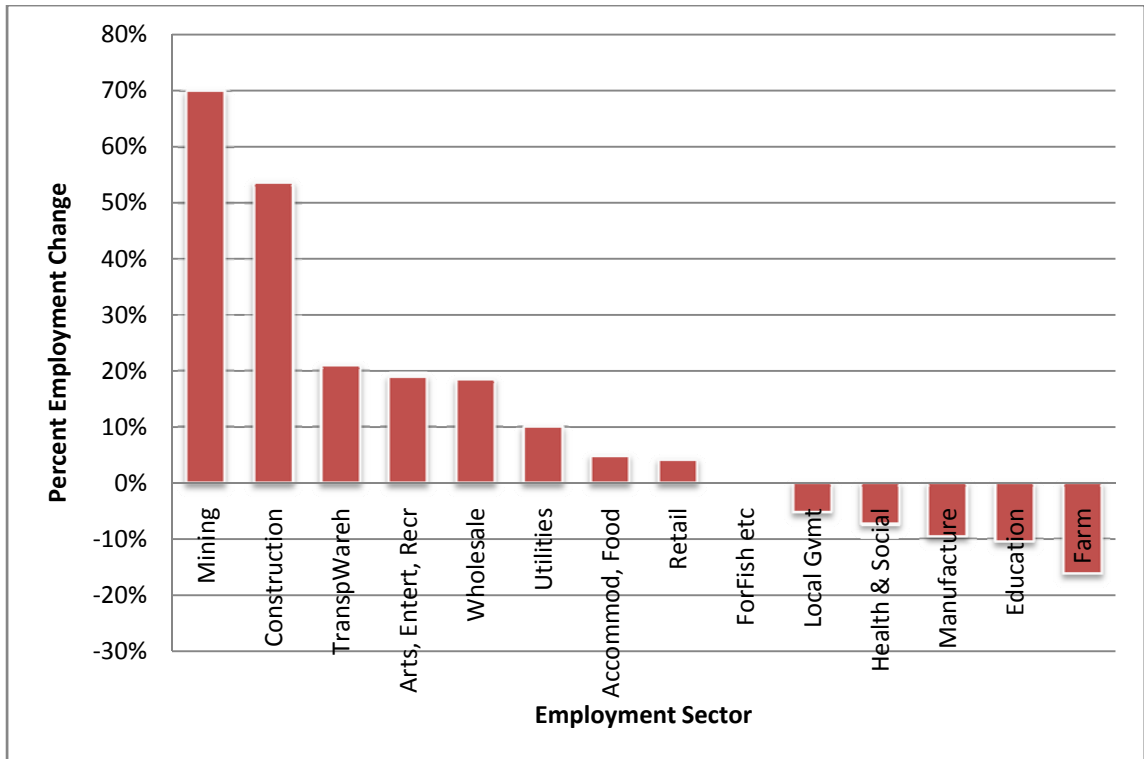


Figure 8. Percent of employment change 2001-2008 by sector for Chouteau County. See Table A.3.

From 2001 to 2008 mining and construction-based activities (building or remodeling of business, residential, water/sewer, and transport infrastructure) saw the largest growth in employment, whereas farming, education, manufacturing (food processing and machine creation), health, and local government sectors experienced declines. An explanation for why the growth rates for mining are high is that this sector's employment numbers were very low in 2001 with addition of only a few jobs between 2001 and 2008. Recognizing that farming had a roughly 20 percent loss in employment in seven years is detrimental to Chouteau County and Fort Benton in that farming is such an important source of employment for the community. The increase in retail, accommodation, and arts suggests that the county is directing its attention to attracting people through tourism. The increase in construction alludes to the building of homes

and of road maintenance. A community member in Fort Benton explains new housing in town as:

we are getting some people that have moved in, they are financially able. Some of them are young people that are either farmers or ranchers here, but want to live in town. Some of it is speculative; some of these lots, there have been some speculative construction thinking that maybe if it is there it will bring people in. A lot of it is retirement, you know mom and dad want to step off the farm, they want to move to town, move into Fort Benton, they buy one of those lots; they put in a home (citizen of Fort Benton).

The decrease in manufacturing and education could be the result the declining population that no longer needs certain goods or services or the operations are not able to remain active financially. A smaller population usually means a lower demand on services which could explain why the health sector decreased as well.

Local government is another sector that showed noteworthy decrease in employment. This is likely a result of the decreasing government jobs including the school where student enrollment is dropping and financial cutbacks are occurring. The overall importance of schools and how it is changing is addressed later in this chapter.

Fort Benton's economic change is not only driven by the economy, but also by the population loss the town is experiencing as well as limited housing. People of Fort Benton are cognizant of how employment, population, and housing are interdependent:

we will agree to bring the building in and we will set the business up. Where are they going to live? We have no houses available, I mean those are all things and one is going to build on the other. You know we are not going to get houses until we get people and we are not going to get people until we have an industry; unless we have homes. You don't know which part of the puzzle to go get first (citizen of Fort Benton).

Basically, people are not moving in because the job opportunities are unavailable.

However, businesses are not being created because of the small population and a correspondingly small labor force as well as housing concerns. How a community

responds to the changes in their economy and population determines their vitality for the future.

#### **4.1.1.2 Economic Development Efforts**

Most rural areas begin development efforts when they are experiencing gain or loss in their economic and demographic profiles. Economic development is a concept that rural communities' turn to when they are enduring such change. In the case of Fort Benton, they have connections with an outside economic development group known as the Bear Paw Development Corporation of Northern Montana (BPDC). This economic development group "a private, non-profit organization created for the purpose of administering programs to help improve regional economic conditions in Hill, Blaine, Liberty, Chouteau and Phillips Counties and the Fort Belknap and Rocky Boy's Indian Reservations," (Bear Paw Development Corporation). Having a group such as this is an asset for any community in that they can offer development strategies that will help keep a rural community vital. In Fort Benton, residents believe that:

without our involvement in Bear Paw, which is going on close to 20 years now, there would be a lot of things that [would not get done]. This is one of them (in reference to city hall improvements); they were successful in getting us [an] energy grant through the department of environmental quality, 158,000 dollars, and we are just wrapping up a water main replacement. Bear Paw Development has played a huge role in not only keeping Fort Benton's infrastructure current, [but also] in improving it (citizen of Fort Benton).

This supports the notion that successful development is achieved through focusing attention to a town's infrastructure, businesses, and through the delivery of services (Cavaye 2001). In terms of economic development, Fort Benton's Chamber of Commerce is recognized as being an active agent for the local economy. It was said that the chamber has been responsible for much of the promotion of local tourism. The



Chamber also makes efforts for local businesses to support one another which in turn will help the economy as a whole, as the following illustrates:

one thing that the Chamber of Commerce has done [is] to promote all of the businesses, is this charm bracelet [initiative]. You go to this one place and you get the chain and then you get the one charm and then you go around to each different business and each business has its own charm that you can buy (citizen of Fort Benton).

In terms of economic improvements, the idea of taxation has been on the minds of many people in the community. Residents have heard and taken interest about how other rural communities have been engaging in the concept of a local tax. They have even gone as far as to attend meetings where taxation is being discussed. One tax that gained their attention was:

there is an [economist] at Montana State University. He has a great [idea], it is a diversified tax, it is a little bit of sales, it is a little bit of a flat tax, and it is a little bit of a property tax. But he spread the wealth out on where it is all going to go, he can fund education, he can fund social services...I think somebody needs to get on board with that. I think these legislatures need to start bringing somebody like that in and working very closely with him and looking at it, it is an option, let's roll the dice a little bit, what the heck do we have to lose? (citizen of Fort Benton).

In terms of "spreading the wealth" that would allow tax money to be collected and designated for whatever uses that would best suit the town. The money could be allocated towards Main Street revitalization or other improvements that could gain the attention of outside interests.

Many remarks have been aimed at the tourism industry and how it could be improved in order to capitalize on the income potential for the economy. Others in the community point out that their local economy needs businesses that are non-agricultural related and not seasonal like tourism. There have been other conversations about trying to tap the wind energy and biofuel potential that Fort Benton has. Perhaps support for

entrepreneurial activities among current community members could add some business to the local economy.

#### **4.1.1.3 Tourism**

Tourism is a topic that was frequently brought up in conversations with community leaders in Fort Benton. Aside from agriculture, it is known among some residents as an important component to the community.

We do have a draw and we do have people; we have a couple things. Two years ago, Fort Benton was named the *Montana Tourism Community of the Year* and this year our summer celebration was named the *Tourism Event of the Year* (citizen of Fort Benton).

Given Fort Benton's historical importance mentioned earlier, it is appropriately a place that people are attracted to. Having the Historic Fort still in town is a major attraction. In addition, there is the Interpretive Center that is a building where people can learn about the history of Fort Benton and the Missouri River. There is also a museum in town that provides much information about Fort Benton's history and geology.

Once a year, Fort Benton hosts a *Summer Celebration* where people from all over come into the town to partake in the many happenings. *Summer Celebration* is the time that there is a parade, art shows, museum tours, street dances, fireworks, class reunions, luncheons, potlucks, ice cream socials, fishing derbies, and walk/run events (Summer Celebration 2011). During those three days in the summer, Fort Benton is a happening place. Having events such as these not only helps bring in tourists, but also relies on community members to work together, which strengthens Fort Benton's social capital.

A challenge for most rural towns at higher latitudes is that the summer tourism only exists for three months out of the year. This makes it difficult to economically capitalize on what your town has to offer. Once the first snow of the year arrives, it is

unlikely that the town will experience any tourism until after the spring thaw and people begin to travel again. This instance was explained further as:

tourism isn't bringing [many] people in and if it does bring people in, it brings seasonal people. It brings them in, they might buy a summer home here. I think as a matter of fact, there are a handful of homes in town here where people from out of state buy and they come out in June and July and in August they go home (citizen of Fort Benton).

This then leaves the community to rely on its other economic sectors for income.

While some residents see tourism as a driving force, others view it as not being as strong as it could be. Locals remark that tourism in Fort Benton is limited to daytime activity because the town lacks the lodging capacity to keep people overnight.

Additionally, the wide range of attractions may not be known to visitors.

A lot of the people seem to be here for a day, or possibly overnight, but it just part of a bigger trip. We have a lot of things to draw and yet I think most people, unless they combine it with the river trip, are only here for a day. People talk about, maybe we don't have enough housing facilities maybe we need...another motel or something to handle that. I think that for much of the year they would have vacancy issues. I don't know that we have the draw to bring people year round. A lot of our traffic is from spring to fall (citizen of Fort Benton).

In addition, tourism in Fort Benton does not create many extra jobs as the industry utilizes current employment infrastructure such as the Grand Union Hotel, bars, stores, and other businesses that are already open year round.

Some believe that there is untapped potential in Fort Benton's tourism and that other avenues should be explored.

One of the big focuses was on recreational tourism; ag related tourism. What can you do on your farm or ranch? Whether it's horseback rides or whether you take them on a help move cows, or help brand or something. At that time, that was several years ago, that a lot of the tourists actually wanted the experience, not just to see something, they wanted to participate; feel like part of it (citizen of Fort Benton).

Expanding tourism into the agricultural sector would render the potential for more profits for the local economy, but it would be important to recognize the positives and the negatives of doing so before actively engaging the community.

#### **4.1.1.4 Cost of Living**

Cost of living here refers to the aspects of price and access to goods, services, health care, transportation, utilities and housing. By being a rural region, it is expected that Fort Benton has slightly higher costs than in urban areas because of the transportation factor of importing goods. This in turn usually increases the price of everything in the local economy because business owners also having to pay more for their products in addition to the salaries of their workers. Transportation can be expensive if trips are made into nearby Great Falls for a larger selection of goods and services. On-site observations rendered that Fort Benton has most of the supplies or groceries that a small community would need for everyday life. The prices of utilities were never mentioned as being overly high but it was noted that alternative energy sources have been considered.

There [are] two or three [wind farms] proposed in Chouteau County. There is one out here in Frenchman's Ridge, you know all of a sudden wind isn't so popular because it has become more expensive (citizen of Fort Benton).

The price of housing also was not brought up in discussion, likely because of the market being dependent on both the supply and demand of houses. For Fort Benton, the price of a rental is probably a little bit lower considering low supply in conjunction with little demand at this point in time. Fort Benton's housing issues will be discussed later on in this chapter.

All in all, the slightly higher cost of living is the price many rural residents pay in order to enjoy rural qualities, such as the experience of open space or the feeling of safety, as many people describe rural living.

I would have to say the wide open spaces. The peacefulness of the town, I never lock my doors here. I don't lock my car. It's not that way in very many places anymore. It's just a wonderful place to live and I just love this town (citizen of Fort Benton).

People in small towns such as Fort Benton, take pleasure in the rural lifestyle by being able to know their neighbors, leave their house doors unlocked, leave the keys in their car, and let their children ride their bikes around the neighborhood without being concerned. It is this higher vitality that rural towns such as Fort Benton have that offsets the higher monetary cost of living.

#### **4.1.2 Population**

A counterpart to a town's economy is its population (see Figure 9). From the year 2000 to 2006 Fort Benton has steadily lost population going from 1596 people to 1424. Between 2006 and 2009 numbers remained fairly constant seeing a very small loss towards 2009. The 2010 U.S. Bureau of the Census data unveiled a small gain with the total population being 1464.

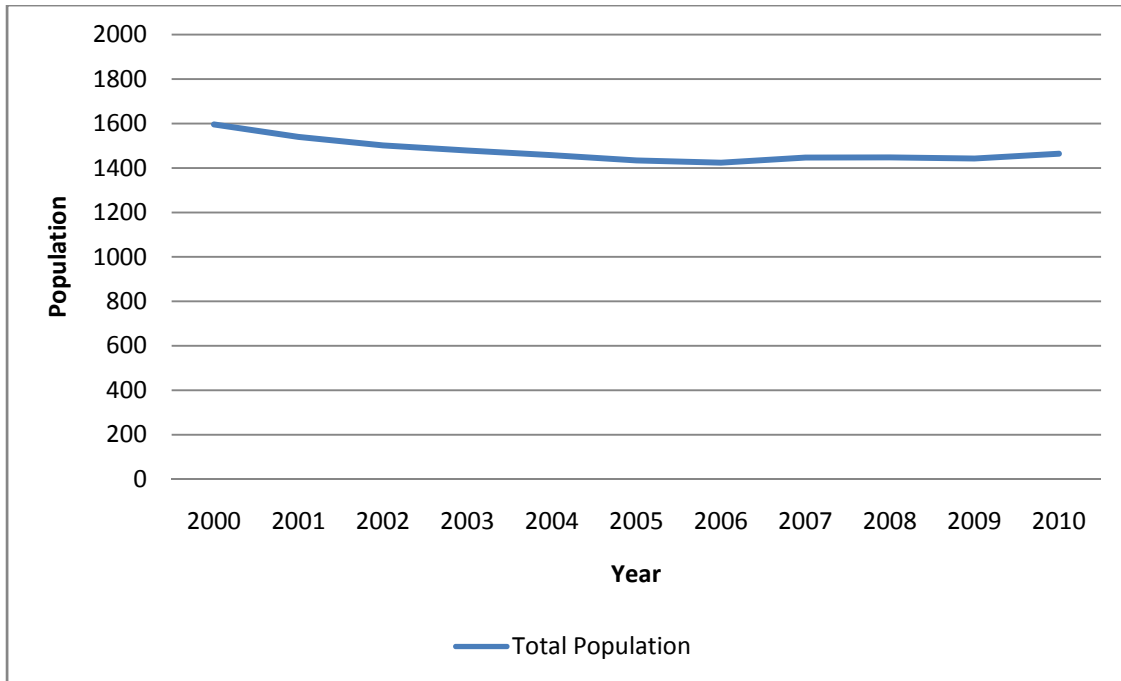


Figure 9. Fort Benton population 2000 to 2010. See Table A.5.

Figure 10 below, shows (for 5-year cohorts) the age distribution of Chouteau County in 1990, in 2000, and in 2010 (U.S. Bureau of the Census). The chart visualizes how cohorts progressed in age over time, but also how cohort sizes changed. Overall, there is a shift away from younger age groups towards older age groups. The number of teenagers, for instance is considerably lower in 2010 than in 2000. The concerns about declining school enrollment, which were expressed in several interviews, are therefore readily reflected in the data. The drastic drop in cohort size between late teens and early twenties is very typical for rural areas and results from substantial outmigration of rural youth after high school graduation. When compared to 1990, Chouteau County in 2010 had fewer people between 25 and 45. This means age groups that form the younger labor force (in their 20s) and the labor force with experience (in their 30s to mid-40s) diminished. Several interviewees spoke of the limited size of the labor pool in the area, and the data bears this out. In contrast to younger age groups, more people were over 50

years of age in 2010 than in 1990, which is a largely result of aging in place: 35 to 39 year olds in 1990, for instance, are 55 to 59 year olds in 2010. For the elderly, especially over 70, cohort sizes tend to shrink because of mortality. There also can be outmigration of elderly, for instance, to more urban areas for services, especially for health care. To untangle the exact relationships between mortality and outmigration of the elderly, a complex cohort component model had to be applied. However, as the number of people 75 years of age and older actually increased between 1990 and 2010, outmigration of elderly from Chouteau County is likely limited.

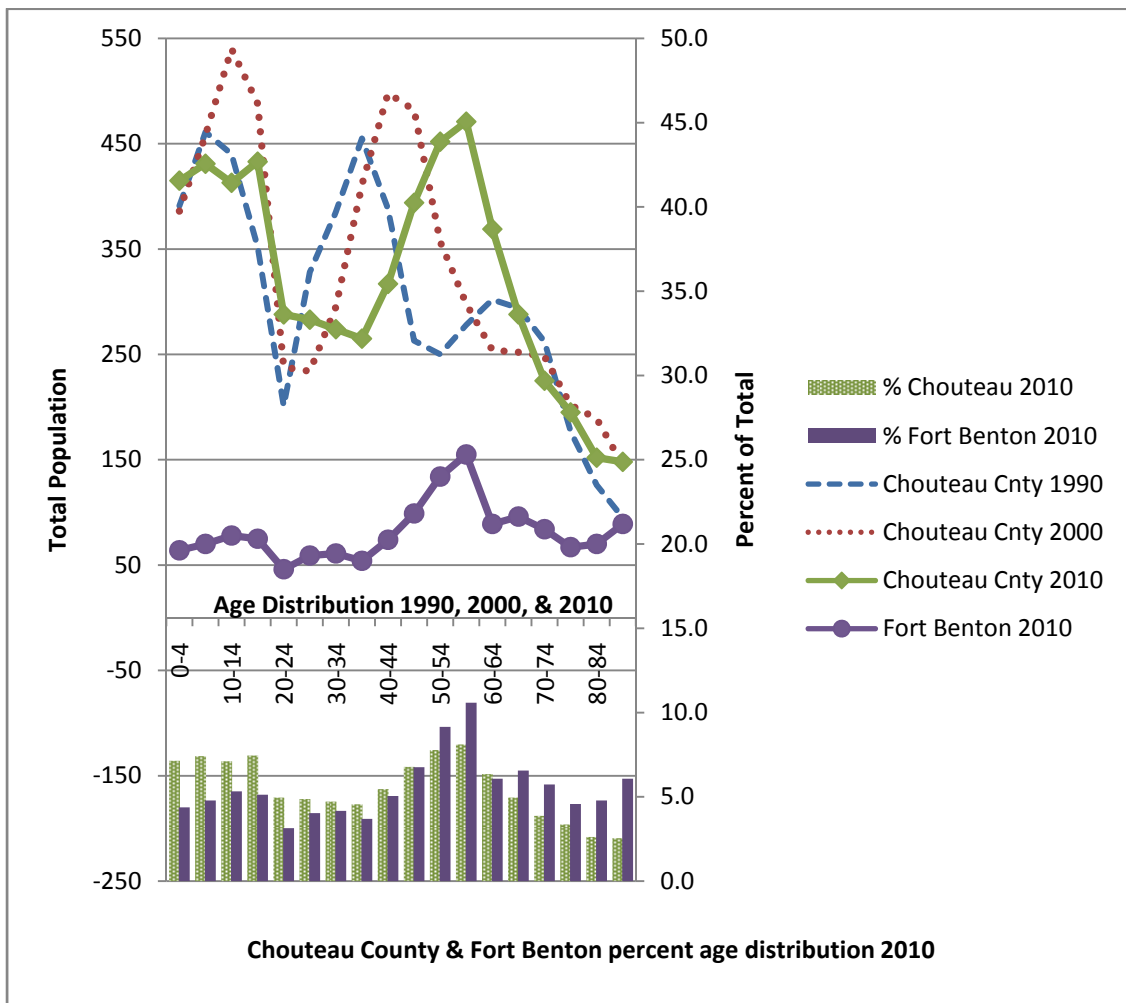


Figure 10. Age structure of Chouteau County for the years 1990, 2000, 2010 and of Fort Benton for 2010. See Table A.6.

Figure 10 also shows the age distribution of Fort Benton, and cohort shares for Chouteau County and Fort Benton (shown as bars using a secondary axis). The data reveal that, in principle, the age structure of Fort Benton follows that of Chouteau County: relatively few people under forty, and relatively large populations over fifty years of age. For Fort Benton, however, that contrast is even greater than for Chouteau County. In Chouteau County, for instance, over a third of the population is under 25 years of age (34 percent), while in Fort Benton, less than a quarter is under 25 (23 percent). For 50 years of age and older, the values are 40 percent and 54 percent, respectively. Fort Benton community members also recognize the fact that they have a steadily aging population, “it is an aging population, I am not saying a full blown retirement community, but there are a lot of retired people living here,” (citizen of Fort Benton). The noticeable rise in the number and percent of elderly is consistent with what was mentioned in interviews: that some elderly from surrounding rural areas move to Fort Benton at a higher age.

#### **4.1.2.2 Change over Time**

As the following figure shows, Chouteau County’s population has been fluctuating over the past forty years with the population decreasing then growing to some extent before decreasing again. The decrease continued until the year 2000 when there was a dramatic increase, then steady growth. This shows Chouteau County experienced slight growth in population between 2000 and 2010 despite that in Figure 9, Fort Benton’s population numbers had decreased. This means that the other areas in Chouteau County experienced a gain in their population while Fort Benton’s population decreased.



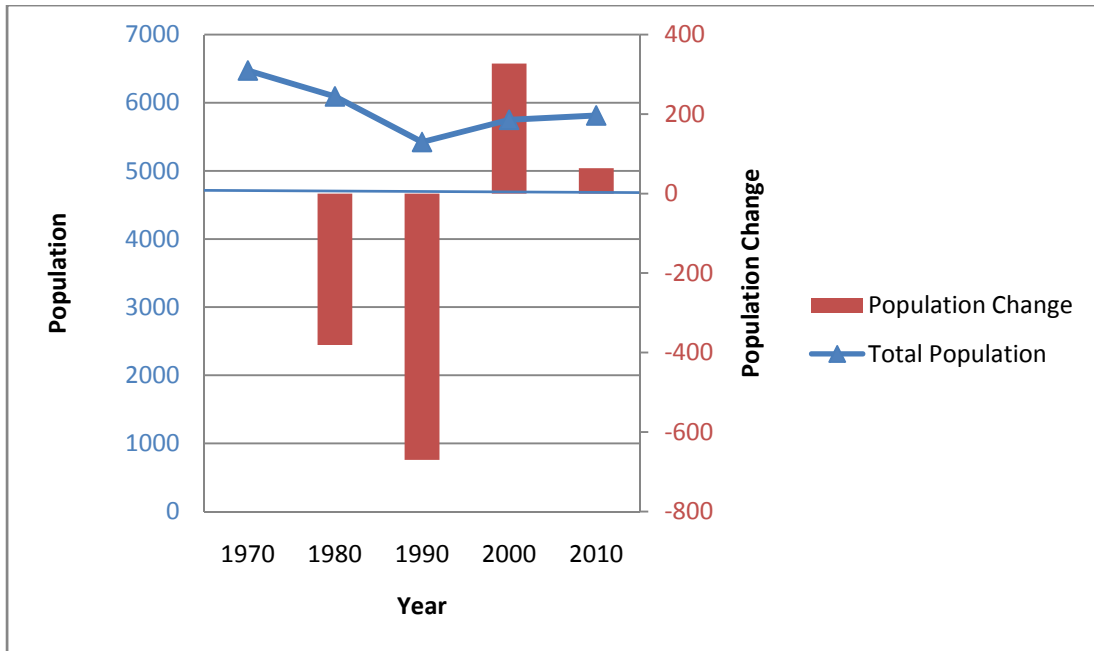


Figure 11. Chouteau County population dynamics 1970 to 2010. See Table A.7.

The loss of people at the county level can be explained by either deaths or by outmigration. Chouteau County’s cumulative death rates between 2000 and 2010 are higher than the cumulative birth rates (see Figure 12). If people are passing away faster than people are being born, the total population is going to decrease naturally as reflected in the negative rate of natural change. The data shows that Chouteau County is experiencing this coupled with a mediocre rate of net migration meaning that a few people are moving. The rate of cumulative change is the combination of both the rate of natural change and the rate of net migration. People in Fort Benton have been readily witnessing this change:

population has gone down and...the percentage of decrease is slow recently. Just saying the demographics is incontrovertible; you can argue whether it is going to be 20 years or 40 years, but your plan can’t continue with [little to] no immigrants with low birth rates (citizen of Fort Benton).

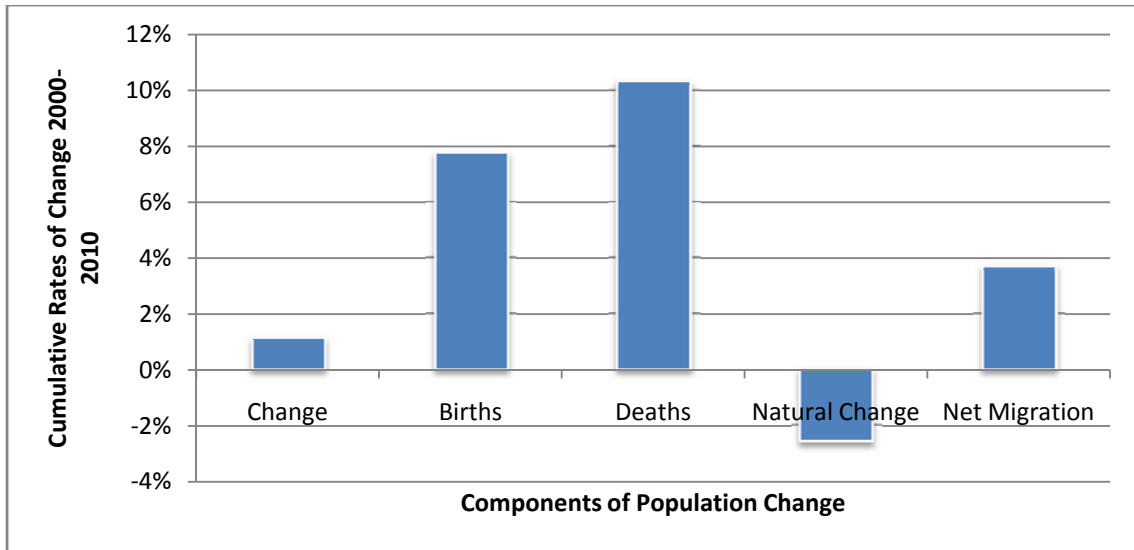


Figure 12. Chouteau County population components 2000 to 2010. See Table A.8.

### 4.1.3 Amenities

Even though people do not consider Fort Benton to be a bedroom community for Great Falls, many people do, however, travel to Great Falls to reap the benefits of urban amenities.

Think the best thing we really have going for us is our close proximity to Great Falls. You know the third largest city in Montana, basically it offers people good medical [and] shopping; everything else in a large city is 35 minutes away (citizen of Fort Benton).

Amenities are becoming increasingly important to people all around the world as technological advancements allow for a more comfortable living. Rural towns such as Fort Benton are no exception. Having an acceptable amount of amenities is a driving factor in whether or not people want to locate themselves in a specific region. No matter if the amenities are built (infrastructure & services) or natural, they have a significant impact on the community.

### **4.1.3.1 Built Amenities: Infrastructure and Services**

#### ***4.1.3.1.1 Housing***

A topic that is usually on the forefront of economic development is housing. In Fort Benton limited available housing is important as it leaves many people wondering where they could house incoming migrants. At this point in time the housing demand is not large because of limited employment opportunities that attract people to the town. It seems that the only instance where people move to Fort Benton is if they are filling a teaching position at the school. Even in that situation minimal housing is available unless someone moves away leaving a vacancy. In general conversation the question was asked if Fort Benton has become a bedroom community for Great Falls, where people live in the rural and drive to the urban for employment. Responses were usually:

I think there is some, but not as much as what people think. You know I can name three or four people that I can think of off the top of my head that may be employed. There are some people involved in some of the ag business in Great Falls that commute back and forth; there are even a couple people that teach in Great Falls schools. So I mean probably when you counted it up, there might be ten or twelve people in town, that go to Great Falls, but I wouldn't say it is a major thing. And maybe there is a few more than that, there are some construction guys that I know that go up there and you know maybe by the time you really got down to the nitty gritty, there might be pushing 20, but for the most part I think most of the people here somehow make their living here (citizen of Fort Benton).

This was very surprising considering the close proximity of Great Falls to the community, which would allow for increased employment opportunities while living in a rural area.

One thing certain in Fort Benton is that their housing is capped out. Geographically, there are constraints as Fort Benton has the river on one side, in addition to a rugged terrain that would naturally limit growth. However, there are some new

housing developments which are occurring on the north end of town, but were stated to be privately owned. Farmers who used to live out in the country are now building houses in town to be closer to the services available.

There are really no building lots in town; there is kind of a housing crunch right now. But in a bigger picture, this town is capped. We have expansion in our facilities, we have the sewer expansion that is already there sitting idle. It wouldn't take any investment on the community to make a larger building site happen. There are just no building lots in town (citizen of Fort Benton).

There has been discussion about developing condominiums or apartment buildings which would allow for a variety of housing options. Again though, with no building lots, and without the attraction of business or the push for Fort Benton to be a bedroom community, people are not going to move into the town, hence making housing development unnecessary. As stated before, housing is all part of the cycle of what a town needs to attract businesses and people that would in turn increase community vitality.

#### ***4.1.3.1.2 Schools***

Whenever the topic of population dynamics came up in Fort Benton interviews, school enrollment was also referenced. For the past few years Fort Benton has been experiencing an increasing loss in enrollment, mainly due to the fact of seniors graduating and the elementary school having smaller class sizes:

I think they will always have 50-60 kids in the high school, but we are going to get there. That is the thing, considering ten years ago we had 180, I heard somewhere where Chouteau County and Prairie County were the two fastest counties where the school districts were losing population. Pretty much all we have to rely on is agriculture and Prairie, where Terry is, and we are going to fall off fast; we are going to drop our enrollment again by half in ten years. Pretty easily...ten years would put this year's second graders, seniors, so that would be 20 and 18 and 30. We might not be quite down to that, 50, but we will be at that, 60 to 70 (citizen of Fort Benton).

Fort Benton's school was at one point a Class A school before dropping down to B and most recently to C as enrollment numbers dwindled. Without people migrating into the town, enrollment is restricted to the existing population and however many children that are being born that will eventually reach schooling age. In a conversation about enrollment numbers and teaching positions available, it was asked that if in the interviewing process for hiring a new teacher, the school board would prefer hiring a person with a family, "if you have a family and you are looking at a teaching job, all you have to do is let them know you have a family and most places will take you just for that reason; numbers," (citizen of Fort Benton). If so, this would allow for enrollment numbers to increase, as well as adding more people to the community. On the other hand, the question is what employment opportunities Fort Benton would offer to a spouse. This is a question many people face when looking to relocate in a rural area and this can affect their overall decision to move.

Since fall 2006 enrollment numbers have decreased from 115 students in the high school to 89 in fall 2010 (Montana High School Association 2011). As the total number of students decreases, so does the amount of money a school receives for programs and employment. In a conversation about receiving less funding it was said that:

[the] goal was to keep all academics, all of the teaching and all of the sports the same for as long as we can. If we have to cut, we are going to cut in other places. We will cut maintenance, we will cut, you know, administrative costs, so hopefully we can hang on doing that (citizen of Fort Benton).

The school was mentioned as one of the main employers in a conversation about the town's economy. However, qualitative resources reveal that the school struggles to keep positions filled. As is the case with many rural schools in the State of Montana, it is hard to attract recent graduates as many of them find better opportunities in nearby states. Not

only do teachers have lower salaries in rural areas, but also have to contend with issues of housing, amenities available and social networking. Fort Benton similarly struggles with where to house their teachers when they move in. As a result, community members have looked to other rural communities to see how they are dealing with similar issues. For instance:

you know some of those places, like Fairview, took some of their oil money and they built homes for their teachers. So when you go to Fairview to go apply for a job, they will provide you with teacher housing. Hey, great idea, wish [we] had the money to do that; put two or three little apartment complexes up (citizen of Fort Benton).

It was also acknowledged that while it is important to have a great education, it is also important to have good extracurricular activities. Aside from education, high school sports are of tremendous significance for rural communities. Whether Fort Benton residents are filling up the stands at a home football or basketball game, one thing is certain that the community comes together to support their team.

You know their employment opportunities for kids are tough. [It] used to be these farms and ranches have hired two and three in a shot, but that has changed a lot, and so a lot of kids, these sports are the only things that they have to get work ethic, that is their job. You know [the school has] really good support and we dropped from class B to class C; last year was our first year. The first night that we played Big Sandy in a contest, in the 60s it used to be a huge rivalry. First night we did it all of these senior citizens were showing up and I know what they were doing, they were coming back to see if the rivalry had lasted or not, you know if it was still here. We didn't get near the participation from Big Sandy down here, but when we went up there, their gym was packed and it was kind of the same thing. A lot of the old crowd was coming back just to see if there was still that rivalry (citizen of Fort Benton).

Sporting events give community members a place to interact with one another in an informal fashion while partaking in the local entertainment. This in turn increases social capital and renders the community's ability to come together to resolve issues. For

instance, the town needed lights for their football field but lacked the funding. As a result of this:

finally three businesses just took it upon themselves and they are going through, it is all donated dollars, but they are going to re-light [the] whole field (citizen of Fort Benton).

Much of the maintenance and upkeep of the sports programs rely on the efforts of volunteer community members who recognize the importance of athletics not only for the students, but also for the community as a whole.

#### ***4.1.3.1.3 Health Care***

The availability of medical care often times will determine how many live in a rural community. Fort Benton is fortunate enough to not only have the Missouri River Medical Center that can provide immediate medical attention, but has trained personnel (fire rescue and emergency medical technicians) that can respond to emergencies or transport patients to nearby medical facilities in Great Falls if need be. As stated on their webpage, Missouri River Medical Center's mission is to:

promote and enhance the quality of life in Chouteau County through a wide range of healthcare services including Emergency and Primary Care, Ancillary Services, Acute, Long Term and Restorative Care, Home Health and Community Programs (Missouri River Medical Center).

It was mentioned that the hospital needs to have some renovations in order to keep up with the rising medical standards, which was currently on the agenda of city council.

There is also a pharmacy where people can pick up their prescriptions rather than having to drive elsewhere. All in all, the health care services in Fort Benton are adequate enough to meet the needs of the current population as well as provide a minimal amount of employment opportunities for qualified people.

At one point, Fort Benton also had a retirement village (Sunrise Bluffs Estates), where elderly people could live and have basic services provided for them such as meals and laundry, as well as having their health monitored by staff. Through discussion about this facility it was said that its rooms have become available for rent for people of various ages, not exclusively for the elderly anymore:

the retirement homes just aren't here as much and to make any money with the Sunrise Bluffs Estates, which was kind of more of a retirement place. [The] new owners [have] moved to just calling them apartments. You could be 30 and rent an apartment in there; just anything to try and get money to come into the place to really sustain itself (citizen of Fort Benton).

The reason for making the apartments available to anyone is possibly because the elderly population could be living elsewhere in the town and the retirement village needs to economically sustain itself.

#### ***4.1.3.1.4 Businesses***

In terms of business infrastructure, Fort Benton has a variety of businesses present. Aside from the pharmacy mentioned above, a few of the prominent businesses include: the Organic Flour and Grain Mill, the Grand Union Hotel, an insurance company, two banks, a grocery store, a hardware store, an auto parts store, a barber shop, a car dealership, the Riverpress newspaper, Riverview greenhouse, an espresso & spa, floor covering, a milkshake shop, many bars, gas stations and more not listed. The diversity of these businesses provides access to everyday services that a community would require. Typical of rural businesses though, most are closed on Sundays or have limited hours of operation, with the exception of bars, restaurants, and motels that are in operation seven days a week. These businesses do attract people from the nearby towns of Geraldine and Highwood, which help contribute to the local economy:



and our grocery store, I think is the only store in either place. Our hardware store, I don't think either town has a hardware store, so in the morning you will see a lot of those people coming down for whatever they need. Fort Benton is still kind of the hub there (citizen of Fort Benton).

If people are seeking entertainment in this rural community, many turn to the golf course and to the bowling alley. There is also a community swimming pool; however as is with the golf course, these amenities are seasonal in that they are only operational during the warmer months of the year. The bowling alley, bars, and restaurants offer a social atmosphere where people can connect with each other, play games, or watch a ball game on the television. In the case that people would like to go to a movie theatre, an upscale restaurant, or shopping mall, many residents will venture to Great Falls to satisfy their entertainment needs, "I happen to love opera and classical music...and so Great Falls...has all of these things," (citizen of Fort Benton). Other important infrastructure that Fort Benton offers includes: the Courthouse, City Hall, the Elementary and High School, Library, Museum, Upper Missouri River Breaks Interpretive Center, Chamber of Commerce, and the Medical Center.

#### **4.1.3.2 Natural Amenities**

Fort Benton offers noteworthy natural amenities due to its setting on the Missouri River, not far from the White Cliffs area, lauded in the journals of the Lewis and Clark expedition. The natural amenities that Fort Benton has are not only appealing to current residents, but also to visitors. The largest feature that gains people's attention is the Missouri River. At one time Fort Benton was the furthest inland point that steamboats could travel. Nowadays the town's attraction is its historical significance and physical landscape as well as the fishing and boating opportunities the Missouri River provides. Additionally, various hiking trails are available, permitting scenic landscape exploration.

Another natural amenity that often attracts people is hunting. Even though it was not mentioned in many conversations, the Missouri River Breaks around Fort Benton are known for quality hunting trips. One has to be careful in these areas as to pay particular attention to what land is state owned, which generally allows hunting, or what is privately owned land, which requires permission from landowners. Climate is a factor that many people take into consideration before locating themselves in a region. At times it can deter potential in-migration in that many people are not going to want to stay in an area that has harsh winters which make living difficult.

#### **4.1.4 Social Capital**

Fort Benton's social capital is just as important as are the other components of rural community vitality. Social capital allows for a slightly different measure that pertains mainly to the qualitative data. There is not a quantitative number in which to measure social capital; rather it is explored by the question on how engaged are the people of the town. For Fort Benton, the ability of the community members and business owners to work together to carry out the yearly *Summer Celebration* is an example of considerable community involvement which is synonymous to social capital. Whenever school programs need extra funding, the community steps in and has fundraisers that assist in filling the gap. As is the case with many rural areas, the people of Fort Benton have pride for their town which many attribute to the area's historical background. This pride can be witnessed at a local sporting event or even at the *Summer Celebration* where there are historical presentations.

In spite of this level of community pride, it can also hinder economic development as some people may not agree to various suggestions for improvement

because they are content with Fort Benton's current way of life and do not want it to change. Residents should consider though that if no actions are taken in a town that consistently loses population, that the town could one day no longer be attractive and wither away (Shaffer, Deller et al. 2006). A current issue that Fort Benton is addressing is the aging community with the youngest city council member being 40 years old. The engagement of youth in this town is fundamental for determining future potential (Sharpa, Agnitsch et al. 2002). Younger members need to become involved and learn from current members how they can contribute to the community. It is just as important that the older members allow the younger people to progress into those roles and keep them engaged in current issues as noted by an active citizen of Fort Benton. At times many of the older generations are concerned about the leadership qualifications of the younger generations and can be hesitant to relinquish responsibility unto them.

Typical of a small town, social capital in Fort Benton is strong. Many community members come together to support community causes as events. At the same time, several interviews alluded to community members not always agreeing on all issues. There are going to be issues where some community members agree whereas others do not. Often the general consensus on an issue will determine the action carried out; "if a community wants to change, it will; if it does not, it will not," (citizen of Fort Benton).

#### 4.1.5 Fort Benton Vitality, Challenges, and Future

Everything addressed earlier considered, it would appear that Fort Benton's vitality may have reached an apex given the current economic and demographic trends.

When discussing vitality in the community a member believes:

I think we have gone backwards in quality of life, our agriculture. I am telling you what, these wheat prices better rebound fast because we got some farmers out here that are packing some huge debts. When the price skyrocketed to twenty bucks a bushel so did [their] cost. So a lot of these guys are sitting on wheat that they need eight to ten bucks a bushel just to break even on it and the price is back down to four bucks. It is going to kill them; we are going to see families leaving (citizen of Fort Benton).

This statement stresses the importance of agriculture to the community and suggests that the fate of their agriculture is the same for their rural vitality. In order to increase vitality, the community will need to address methods on how to boost the local economy and population as indicated by the literature. One interviewee stated that "at this time the quality of life in Fort Benton is satisfactory and acceptable by all means." This opinion could vary from community member to community member as everyone has a different standard of living as described in a review of the literature.

Challenges identified by community members include: unavailability of jobs, the loss of population through outmigration of youth to seek better opportunities and amenities elsewhere, the slow-moving economic development, and the difficulty of attracting new people.

I think we have taken a few steps backwards, primarily because of population loss, and probably more concerning is the fact that we don't have any good paying jobs to attract young people; the families back (citizen of Fort Benton).

Another challenge that was addressed pertained to how the local government of Fort Benton coordinated itself with Chouteau County government. The following excerpt portrays the relationship as follows:

I mean they dance to a little different tune than we dance to and there have been problems between law enforcement agencies and that started it. But I think you know, each entity has its own identity and it has its own responsibilities. I always get the feeling at the county, because they are the county, think they are a higher form of government, which they are not. You know we just don't stay in the loop (citizen of Fort Benton).

These are all important issues which Fort Benton contends with on a daily basis. If only one topic was addressed at a time, the community would still benefit. If these issues go unresolved, Fort Benton's vitality may be decreasing.

Fort Benton's plan for the future is to attract jobs in any way possible, stabilize the decreasing school enrollment, and perhaps promote the town more as a bedroom community to Great Falls, which would have potential to increase the local tax base despite the ever-increasing cost of fuel.

I think our population decline is probably behind us, but I think that whatever future Fort Benton has; a large part is going to be what goes on in Great Falls. Commuting for jobs and if you look at Denver, or big places like that, they don't go by miles, they go by minutes. You can hop in your car and be at work in 45 minutes; that is not all bad (citizen of Fort Benton).

There is current discussion of consolidating the neighboring schools of Geraldine and Highwood with Fort Benton which would aid in the decreasing enrollment numbers. A community member commented that "other issues then arise when having to bus the students from their hometown."

In the event that Fort Benton is able to address its problems, the community's vitality may grow, but considering that the challenges much work needs to be done. Fort Benton has considerable potential in its resources and by overcoming some of the

challenges the town might be able to attract more people who would be able to live and work in the community.

## **4.2 Watford City and McKenzie County**

When studying Watford City it is also important to take the surrounding county, McKenzie, into consideration. Watford City is the county seat of McKenzie County and much of the county happenings occur in Watford City. As is the case with many rural towns, public economic data are more readily available at the county level than the community level. Given these constraints, county level data are used for approximation for community analysis. County level data still allows for accurate community analysis. The qualitative results are based on interviews that were conducted in Watford City. As shown in Figure 5, at the beginning of this chapter, the main themes brought up in the interviews pertained to the economy, population, amenities and social capital.

### **4.2.1 Economy**

One of the most discussed topics in Watford City is its economy. The largest economic issue that the town is dealing with is the recent oil boom. Represented in Figure 13 below, oil is part of the mining sector. While it is only ranked third in total number of employment, it remains a major contributor to the local economy. Other sectors that are major employers in the county are local government, farming, construction, health, transportation, and retail.

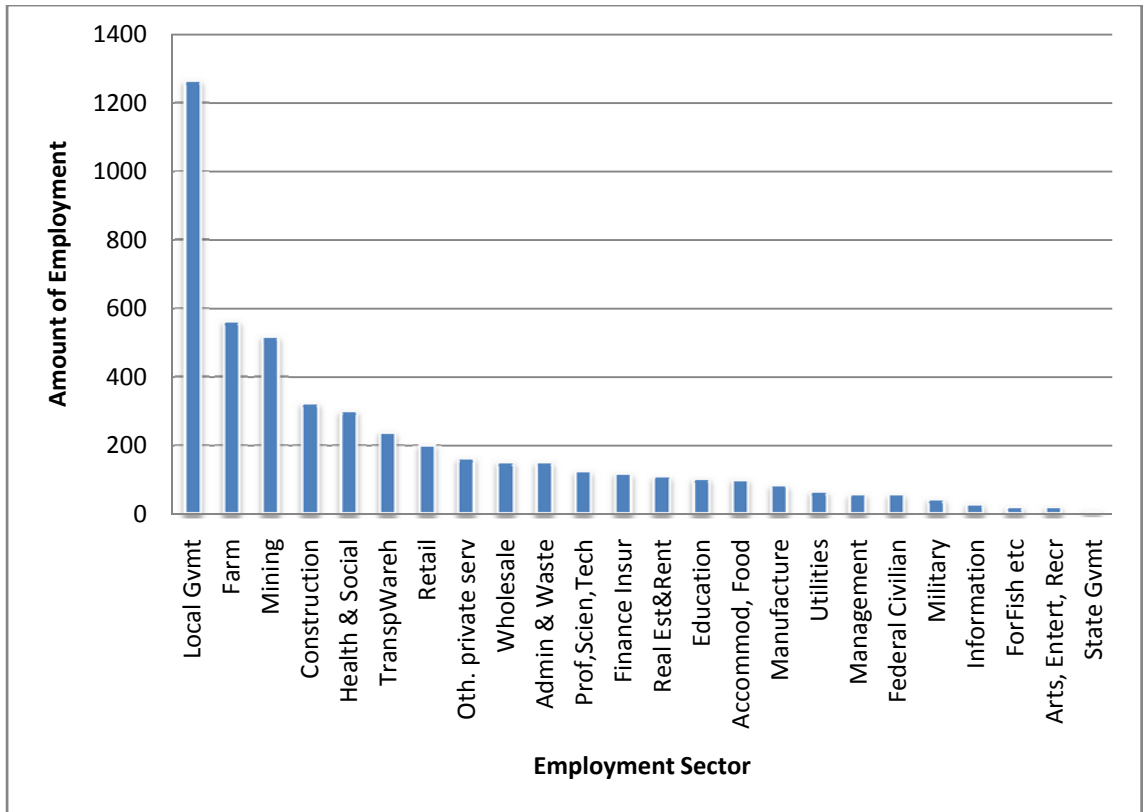


Figure 13. McKenzie County employment per sector 2008. See Table A.9.

Considering the numerous times oil was referenced in interviews with community leaders, it is the best sector to start with when talking about McKenzie County’s economy. The oil extraction industry not only contributes to the economy through its revenue generation, but also through attracting people to the community who will then spend their money locally.

With the oil; the oil field is the shot in the arm. I would hope people wouldn’t gouge it, [but] you get that too. You know, you have to hire more employees; grocery stores need a wider range of products on their shelves (citizen of Watford City).

The presence of oil has not only been important for mining and the economy recently, but in the past as well:

the thing with the oil, the first oil well in McKenzie County was in 1953. Oil surge at that point-in-time went away for a while then came back big in the 80s (citizen of Watford City).

As the oil industry flourished in the 1980s, it attracted many people who sought higher incomes. Not long after the initial rise in population at that time, it began to fall. The oil industry peaked and then decreased which resulted in many people moving away from McKenzie County and Watford City to seek economic opportunities elsewhere. The population surge, followed by decline, impacted the local economy by putting a strain on the available resources. New housing was built which was then abandoned and left the community to contend with the vacancy. However, Watford City residents did not let this hinder their economic potential and continued to work together to make their community the best it could be. As of 2008, the mining industry employs roughly 500 people with many more likely added since these data were gathered.

Second to the mining topic in the conversations in Watford City was farming and ranching. According to the quantitative data, farming is the sector that has the second highest amount of employment. When asked what the largest cultivated product of farming, wheat was commonly mentioned as well as a few other crops:

wheat is probably the predominate crop here. You know the west part of North Dakota puts out more durum wheat than anywhere in all of the United States. I found that out and I was like, are you kidding me? Really? So you know that their yields are pretty good; spring wheat, durum, not so much corn probably, but your pulse crops, they have picked up pretty regular. You have your dry land peas, yellow and green...lentils (citizen of Watford City).

Hay was also mentioned as a big part of the farming sector as it is useful for cattle-ranching that is also prominent in the community. The farming sector in 2008 employed around 600 or so people in the county which is common for rural areas where agriculture is usually dominant. Income from this sector is crucial for economic revenue, but other sectors play just as important roles.



REIS data reveals that local government employs the most people in McKenzie County at a little over 1,200 jobs or roughly 43 percent of the county's total employment. The reason this is so high is that, as commonly associated with rural communities, much of the employment in Watford City falls under the local government heading that includes: county clerks, county maintenance workers, and county police officers. Administrative jobs at the county level and school employees are also classified under the local government sector. For Watford City, this sector was also noted in the qualitative data as community members discussed having to hire teachers and police officers to satisfy the needs of the growing population. As people migrate into the community to capitalize on the economic potential, it puts a strain on services that Watford City offers. The best way for the town to respond is to employ more people in the local government sector to meet the increase in demand.

Lastly the sectors of construction (building or remodeling of business, residential, water/sewer, and transport infrastructure), health (physician offices and nursing care facilities), transportation (freight trucking and pipeline transportation of crude oil), and retail (auto dealers, hardware and grocery stores, gas stations etc.) also employ a significant number of people.

In its entirety, McKenzie County's economy is rather diversified with employment potential in a variety of fields. When comparing McKenzie County employment shares to those of the United States, location quotients show how much above average a local sector's employment is in relation to the United States sector. Using the same location quotient logic as explained earlier, it becomes apparent which sectors in the county have the relatively high employment. The figure shows that the

mining sector is strongly over-represented in McKenzie County, followed by the farming, utilities, local government, and transportation sectors.

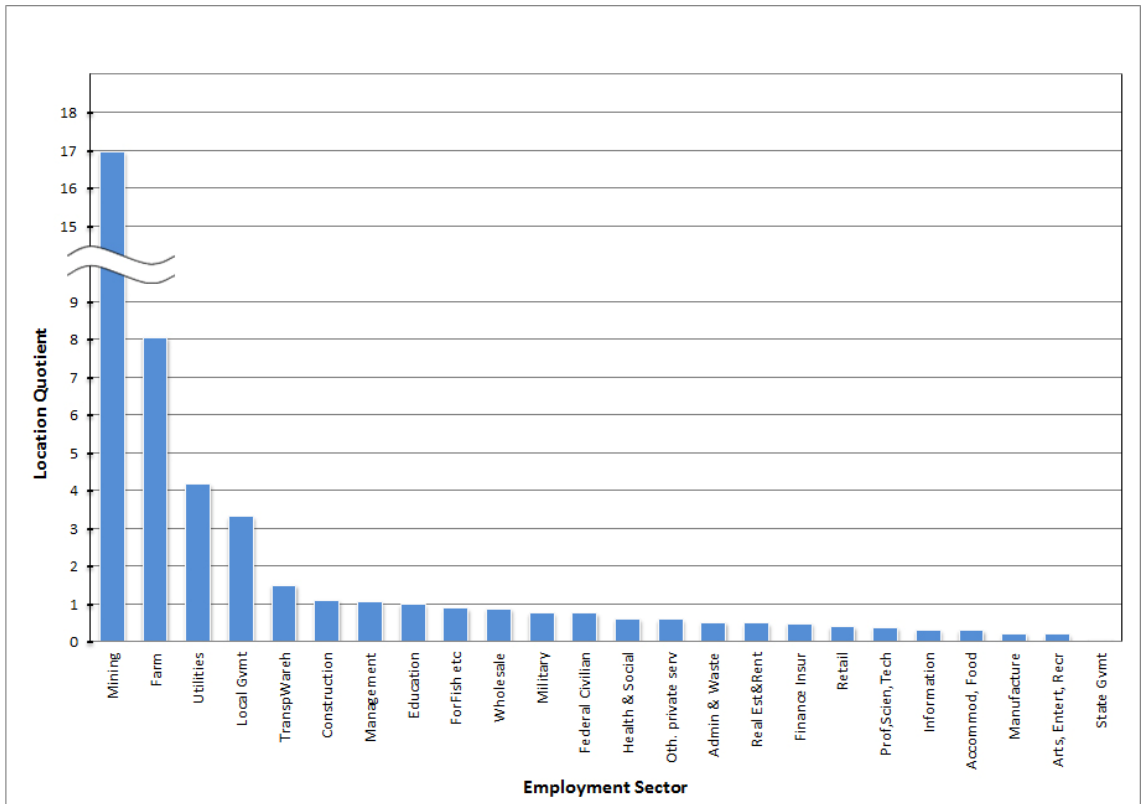


Figure 14. McKenzie County location quotients of sectors in 2008. See Table A.10.  
 Note: This graph appears different from other graphs in the text as a result of the y-axis being edited to show the importance of the sectors with location quotients near a value of one.

The top three sectors that have the most employment as discussed above coincide with being the sectors that have the largest location quotient values. In addition, the utilities sector (electric power generation, transmission and distribution and natural gas distribution), has the third highest location quotient value suggesting that it is exporting most of its product.

#### 4.2.1.1 Economic Change

Rural community vitality is partially dependent upon the employment structure for an area as well as how that structure changes across time. By using data that were available from the REIS, employment change from 2001 to 2008 for McKenzie County

could be calculated for the different sectors. Even though most sectors experienced change, the figure below displays the sectors that had the most change. Of those, six of the employment sectors in McKenzie County experienced growth of some level while two had employment loss.

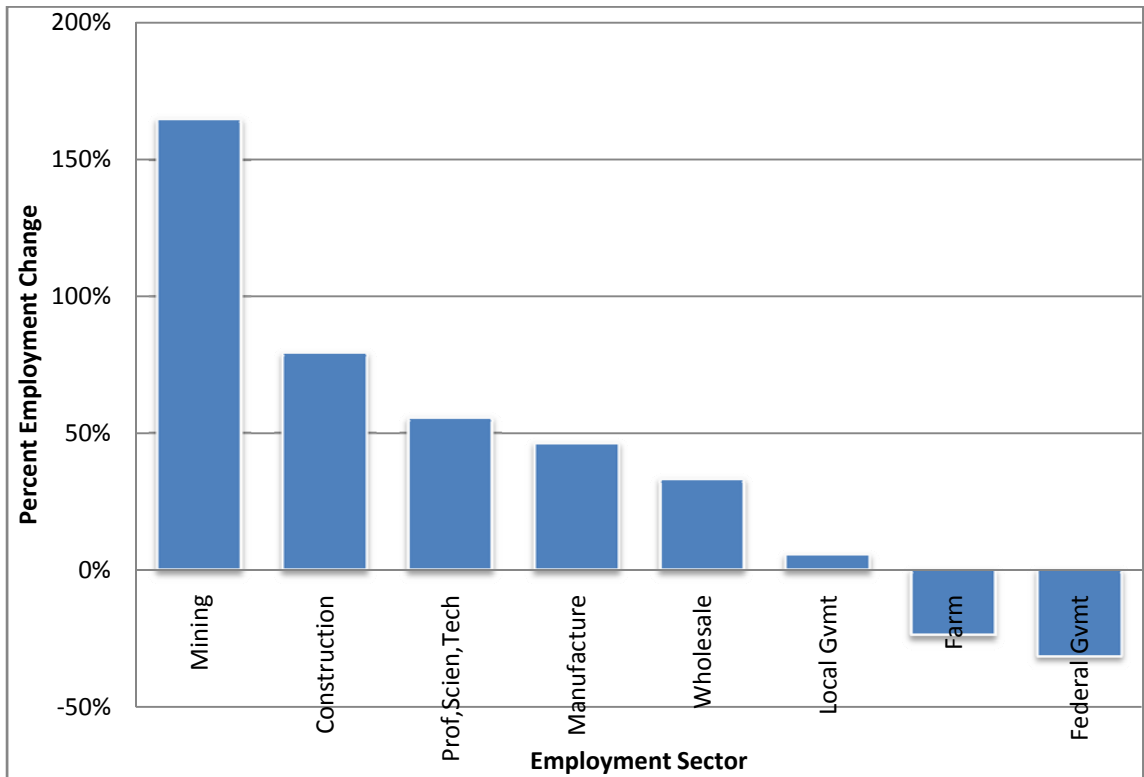


Figure 15. Percent employment change 2001-2008 by sector for McKenzie County. See Table A.9.

Changes in the economy, namely in mining, has made McKenzie County an alluring place for individuals and families who are searching for better economic opportunities. Mining, construction (building or remodeling of business, residential, water/sewer, and transportation infrastructure), professional, science and technology (lawyers, technicians, photographers, etc.), manufacturing (concrete & motor vehicles), wholesale (durable goods, machinery/equipment wholesalers), and local government based activities saw steady employment, whereas federal government and farming sectors had the largest decline.

The recent demand for oil has helped boost McKenzie County's economy by adding little over 150 percent more employees to the mining sector between 2001 and 2008. For most recent data, growth rates are likely even higher. The influx of people to a community for jobs creates a demand for other services which will in turn allow more sectors to hire employees. This is the case as construction, profession, science, technology, manufacturing, and more all increased. It is noteworthy that the farming, the second largest sector in McKenzie County, decreased.

In recent years, the oil industry has begun to repeat the growth that was seen in the early 1980s. However, this time the county is preparing to handle an outflow people if history repeats itself and the oil industry tapers out. McKenzie County and Watford City officials are very cautious in their housing and business development strategies.

You won't find many communities that have had what has happened [here], going from rags to riches to rags to riches. So what we have tried to do is to take our money and guys like our commissioners, they have said, "we have this money now, let's build our infrastructure up...during these off years." We are not going to have a whole lot of debt out there so. Nobody wants to take on big debt in these good years and that affects everybody. I think it is wise, otherwise, if not you would go bond whatever you wanted to do, but you have got to pay for it on the down years (citizen of Watford City).

Economic analysts and people who are involved in the oil extraction industry feel that this oil boom will last longer than the previous one. This has affected long term planning for the community and their overall vision for the future, as citizen in Watford City stated. Much of the increase in employment in McKenzie County can be attributed to the effective economic development which local government agencies have been implementing in addition to growth in the economic sectors.

#### **4.2.1.2 Economic Development Efforts**

Economic development is very important to the people of Watford City. This can be seen by visiting Watford City's homepage where a link leads to a site designated solely to explaining economic development efforts in Watford City and McKenzie County (McKenzie County). In addition to McKenzie County having a Job Development Authority, Watford City has an Economic Development Corporation. These two entities work together to provide the best possible economic development strategies for the city and for the county. Many residents are satisfied with the strategies of development that these entities use, "we have a really active economic development group that has tried a lot of different things; some worked and some haven't," (citizen of Watford City). People understand that not every development project is going to be successful but acknowledge that it is a process where much learning takes place.

The first and foremost issue these organizations deal with is the demand for housing as a result of people migrating in while seeking employment in the oil industry. Whether housing is temporary or more permanent, people need places to live when they move into a community. Concerns that are associated with housing are discussed later in this chapter.

Other issues include infrastructure in terms of: water and sewer, business management (making sure the goods/service needs of the community are met), and transportation (resulting from increased traffic):

we are doing an engineering study right now to see what our water and sewer can handle and we just passed a municipal vote. Ninety-two percent voted yes to get Missouri River water piped here instead of our ground water. Water should not be a concern in the next couple years as that comes online. But sewer, every little town has a problem with their lagoons if they take on too many people too fast. So we got a study being undertaken for that, we have two cells on the golf course

hill that were used during the last oil boom; probably have to be relined and put back into use and then we have to build more (citizen of Watford City).

When a town's population grows, so does the need for adequate infrastructure (Loveridge 2000). This is not only crucial for maintaining the health of the community, but also for its prosperity. If water and sewage needs are met, then other infrastructure can also be created such housing and business developments.

A large component of business development is to support existing businesses while adding new ones at the same time. Downtown revitalization with main street improvements was high on the agenda for the Watford City economic development board. This boosts morale of local clientele while aiding the community in attracting outside businesses and entrepreneurs. In addition, as the economic development webpage states, "(the city has) a number of tools available to reduce the cost of capital necessary to start up, expand or relocate your primary sector business to the community," (McKenzie County). Two such tools include the local Roughrider fund and the statewide Renaissance grant. The Roughrider fund is money that is collected through the city's one percent local sales tax that in turn can help cover start up costs of new businesses.

The one percent city sales tax that we levee when things were quiet, to do basically economic development; the infrastructure type of things. You know that has gone from 70,000 a year to 200,000 dollars a year. That gives you an idea of the kind of growth, so they will probably be over 250,000 you know, the taxable sales come in here have more than doubled in a year. You are talking huge numbers because there are not that many people (citizen of Watford City).

The Renaissance grant is a tax break in which new businesses do not have to pay property tax for five years. This has encouraged many aspiring business owners to locate their operation in Watford City, while at the same time promoting return migration. Other improvements include the various housing projects that are currently happening, the

completion of the Long X visitors' center, First International Bank and Trust headquarters, Water Park, and the golf course Clubhouse & Lounge (McKenzie County).

Having a dynamic economy with a larger population puts a strain on existing transportation infrastructure. While there is not much transportation of goods as there typically is in manufacturing based communities, oil rigs are constantly travelling on the roadways in addition to tourists and locals taking day trips to urban areas. This can congest road infrastructure that was built to satisfy the needs of an agricultural based community as noted in on-site observations. Current road improvements are taking place on US Highway 85 from Theodore Roosevelt National Park, south of Watford City, to as far north as Williston, North Dakota (McKenzie County). This will help alleviate the problems that increased volume of traffic brings, such as accidents and lengthy travel time. After the improvements are completed, motorists can share the road more safely. In addition, the road improvements will make travel more convenient for tourists who are visiting the nearby national park to travel to Watford City.

The community has been successful in organizing their development committee as they work hard to elect officials who want to see the area and economic development succeed. A community leader noted "that is the success of this community; you got to go out, bring those people in, get them involved."

In addition they work closely with the community to make sure that they are focusing on the areas that the community wants them to.

We had a comprehensive plan. We got everybody together and we wrote down what are the major things we need to do to make our community thrive. There were all different areas like health care and senior citizen care, improve local businesses, add a theatre, improve our recreation, and people really got behind it. They were putting different committees behind it and we did ten years worth of

stuff in about two years. What we thought would take ten years took about two years (citizen of Watford City).

This shows how proactive the community is and how their involvement energizes the community. As a community member stated, “you have to start with the assumption that your community is worth saving... [and] saying [that] things are going to get better,” (citizen of Watford City). Watford City and McKenzie County residents have worked hard to achieve the high level of vitality that they now have and are utilizing various economic development efforts to remain at that level.

#### **4.2.1.3 Tourism**

Tourism is a dimension that is of value to Watford City’s local economy, “our tourism; I promote it as a piece of our economy, but it’s not a huge part of our economy,” (citizen of Watford City). People are drawn to Watford City for the same reasons as they are drawn to most rural communities, to escape the rat-race of everyday life and take a break so that when they return to their regular lifestyle they can feel rejuvenated as explained by a local resident. The largest pull factor for Watford City’s tourism is the town’s location between Lake Sakakawea and Theodore Roosevelt National Park. As the transportation infrastructure is being upgraded, more people are expected to travel through Watford City during the summer months (McKenzie County).

One way the community is able to make people stop and tour the town is by making it look attractive. Projects to improve the appearance of their storefronts and the construction of an attractive visitors’ center all aid in gaining the attention of passersby:

the plan was ‘how can we stop [people]?’ ...We have got 100,000 visitors a year to the north Theodore Roosevelt Park. We have got Fort Union and Fort Buford which are big tourism draws and this is prior to Lewis and Clark Centennial. How are we going to stop them? We have a town that highway 85 stopped in the south end and you couldn’t see the town. First International Bank, that second



floor, came out of that plan. Raise your visibility so when people come to the lower, they can actually see that the town is up ahead of them. But the design team actually did visual drawings of what this community could look like. So that recreational plan, we built those in those areas based on that plan (citizen of Watford City).

Once in town, tourists can appreciate many of the amenities that Watford City has to offer. In addition, many people praised the role of the First International Bank and Trust in helping the town revitalize itself through the distribution of funds to various projects. A Watford City citizen proclaimed that you can tell the type of bank a rural community has by simply driving down the Main Street and noting the quality of the buildings.

Events such as *Homefest* and *Ribfest* (a community barbequing event) & *Car Show* grab people's attention and aid in drawing them to the community. *Homefest* is described as an event that is:

held the last weekend of June and was created as a focal point for school and family reunions. You don't have to be from Watford City to have the time of your life enjoying our western hospitality. The event features the Trish Gravos Memorial Golf Scramble, street dances, and other good clean fun that is available to the entire family (McKenzie County 2011).

Activities during these *'fests* include: walk/run competitions, parades, rodeos, reunions, hikes, 4x4 trails, and much more (McKenzie County). These events have become increasingly popular as of late, with people experiencing economic hardships which cause them to stay local. A local explains that rather than travelling out of state, people from North Dakota or McKenzie County are more likely to remain in state or in county for tourism.

During the non-summer months people are attracted to Watford City for a variety of reasons which include hunting and other outdoor recreation. As of late it has become difficult to attract hunters because of the lack of lodging due to the oil boom:

the community has always been quite a hunting area. People come here from all over the United States to hunt here without a whole lot of effort on us as far as advertising or getting those people here. They have a little bit tougher time now because of the motel issues, you know the hunters that come here (citizen of Watford City).

Everything considered, the town of Watford City is welcoming to the tourism industry and, with the exception of lodging, has the infrastructure to support it.

#### **4.2.1.4 Cost of Living**

Considering the rural location of Watford City and the larger geographic distances to an urban area, the price of goods, services, health care, utilities, and housing is slightly higher (Zimmerman 2008). In general discussions with community members they recognized that some of the prices were higher than urban areas because of the cost of transportation. They also acknowledged that the local economy is diverse enough that one has access to essential everyday needs without have to travel great distances.

Of course everyone says shopping. For me that isn't a huge thing, but I guess when I look at everything, you can say bigger opportunities, but yet it's nice because Watford City is very progressive and they do have stuff (citizen of Watford City).

The closest urban areas to Watford City are roughly an hour away and so it is easier to access goods and services locally. Once again, people noted that the cost of living in rural Watford City is acceptable given the higher vitality they feel they experience in return.

The array of goods and services, in conjunction with available employment opportunities, allow Watford City to remain self-reliant. Similarly, as mentioned in other rural communities, Watford City residents appreciate the rural lifestyle of being close to their neighbors and trusting each other. However, this is starting to slowly change as increasingly newcomers are moving into the community because of the oil industry. This

causes some feelings of unease when it comes to leaving your doors unlocked and letting children roam free around town as pointed out by a citizen of Watford City. As population numbers rise, people begin to feel less secure in the environment that they once completely trusted.

#### **4.2.2 Population**

In order to make an accurate assessment of a rural community's vitality, one must also investigate that community's population structure. From the year 2000 to 2009 Watford City had a slight loss in population before leveling out and starting to grow again as shown in Figure 16. Between 2009 and 2010 the population grew quickly. The major issue that Watford City is contending with is the increase in population as a result of people moving in seeking jobs in the mining sector. As of 2010, the population of Watford City is 1744. The total population in Watford City could be larger than this number considering that people who are living in temporary housing might not report Watford City as their current residence.

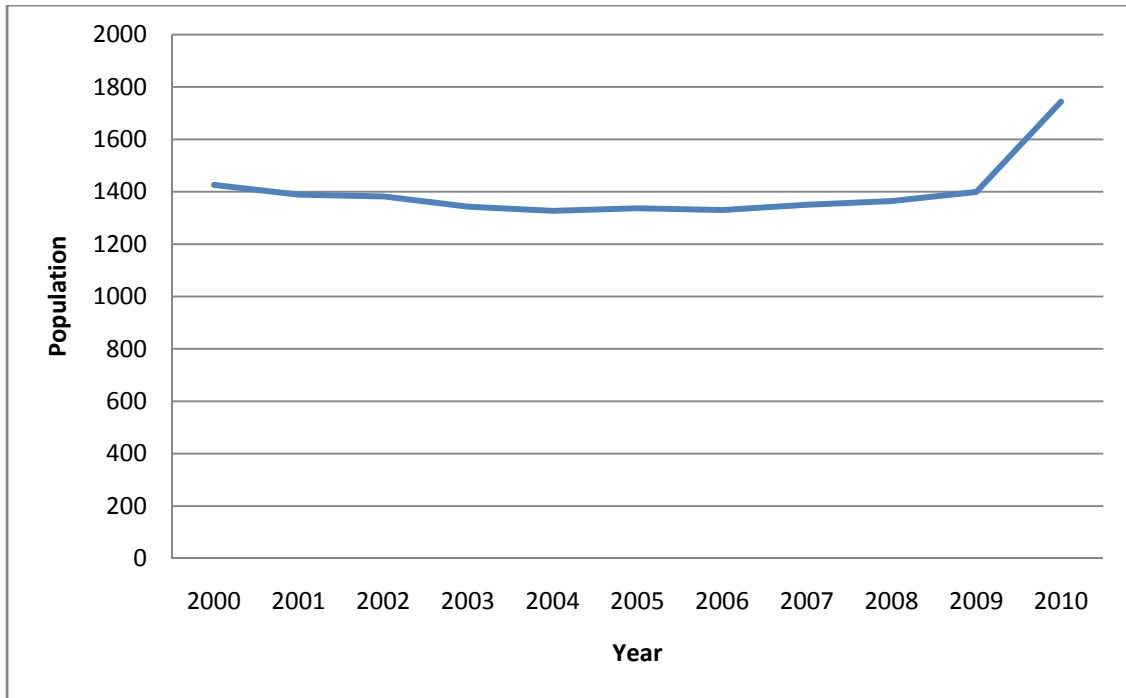


Figure 16. Watford City population 2000 to 2010. See Table A.5

Figure 17 shows (for 5-year cohorts) the age distribution of McKenzie County in 1990, in 2000, and in 2010 (U.S. Bureau of the Census). The chart visualizes how cohorts progressed in age over time, but also how cohort sizes changed. Overall, there is a shift away from younger age groups towards older age groups. The number of teenagers, for instance is considerably lower in 2010 than in 2000. School enrollment for the 2010-2011 year was expressed in interviews to be increasing, but is not presented in the data here, as it is more representative of the 2009-2010 school year. The increase in cohort size between late teens and early twenties is indicative of a rural area where rural youth are not moving after high school graduation and are seeking jobs in their community. In addition, return migration helps explain the increase in the mid-twenty cohort. When compared to 1990, McKenzie County in 2010 had fewer people between 25 and 45. This means age groups that form the younger labor force (in their 20s) and the labor force with experience (in their 30s to mid-40s) have diminished. This could be

beginning to change in a more recent sense as the mining industry has begun to grow, and people in those age groups are attracted to the economic potential. In contrast to younger age groups, more people were over 50 years of age in 2010 than in 1990, which is a largely result of aging in place: 35 to 39 year olds in 1990, for instance, are 55 to 59 year olds in 2010. For the elderly, especially over 70, cohort sizes tend to shrink because of mortality. There also can be outmigration of elderly as they seek health care in more urban areas. For the elderly, to better understand the exact relationships between mortality and outmigration, a complex cohort component model had to be applied. However, as the number of people 80 years of age and older actually increased between 1990 and 2010, outmigration of elderly from McKenzie County is likely limited.

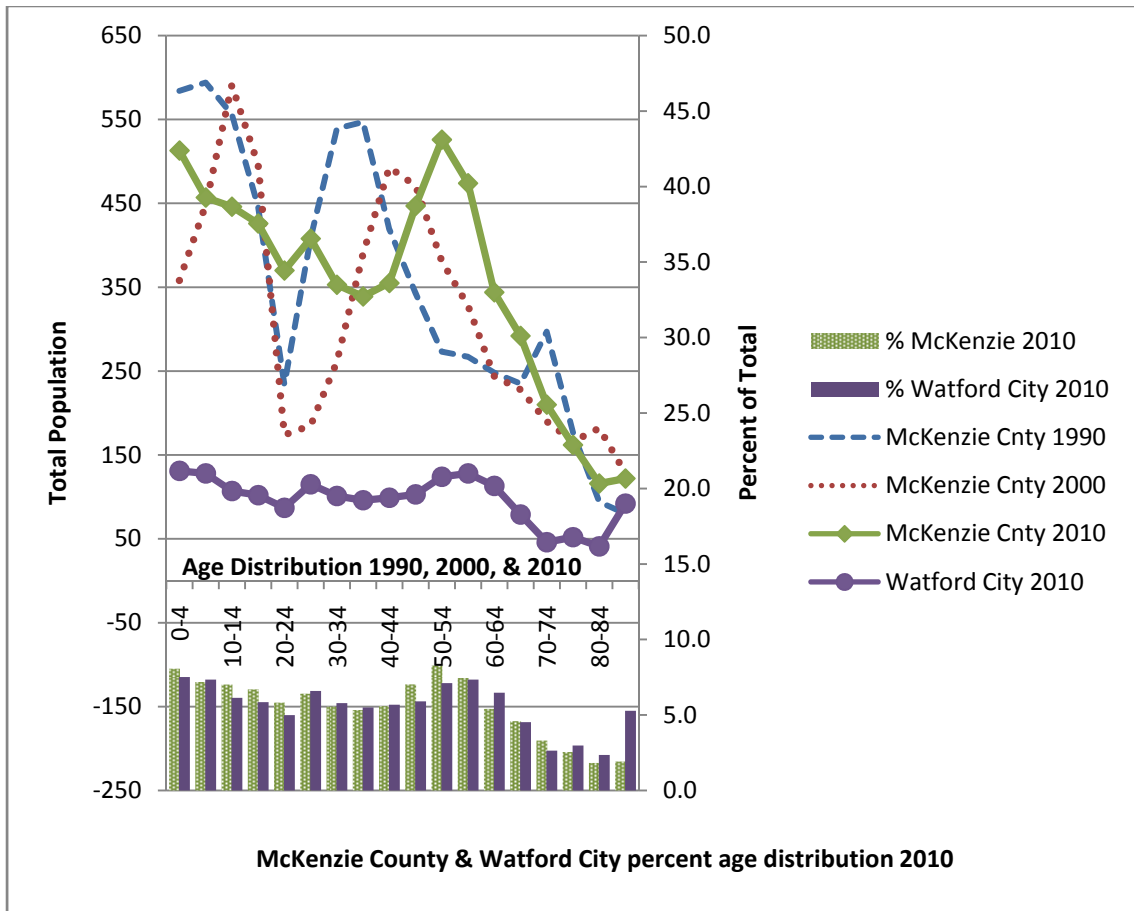


Figure 17. Age structure of McKenzie County for the years 1990, 2000, 2010 and Watford City for 2010. See Table A.11

Figure 17 also shows the age distribution of Watford City and cohort shares for McKenzie County and Watford City (shown as bars using a secondary axis). The data reveal that, in principle, the age structure of Watford City follows that of McKenzie County; relatively more youth between newborn and four years of age in addition to more people between 25 and 29. There is more steady population until the late forties and relatively large populations over fifty years of age. For Watford City, the comparison is even greater with McKenzie County. In McKenzie County, for instance, over a third of the population is under 25 years of age (35 percent), while similarly in Watford City, it is just under a third (32 percent). For 50 years of age and older, the values are 35 percent and 39 percent, respectively. The noticeable rise in the number of elderly is consistent with what was mentioned in interviews: that some elderly are selling their homes in the surrounding rural areas and are moving to Watford City at a higher age. Despite the increase in the older cohorts, the schooling age cohort is low and that might remain the case until the housing issue is resolved as the qualitative sources reveal:

we don't have families wanting to move here who have to live in a camper or whatever. It is the husband coming back [during] the week. I have been strong on the housing part...as a school we need the housing because we are not going to get kids without it. We will get workers here and everything else will go great, but they are not going to move their family, so you know that is what we need (citizen of Watford City).

#### **4.2.2.1 Change over Time**

Throughout the interviews when community members were asked about the population dynamics of their community, many referenced the surge in the early 1980s, then the dramatic loss that occurred a few years later until the early to mid 1990s when the population began to stabilize and see only small change until the recent increase in both oil and people:

we already went through one of these oil booms, oil receded, [people left which] left us a lot of empty buildings, high unemployment rate, and the cultural market was down. Went through a drought, things were pretty tough and that has been 16 years ago. Fast-forward to today and we can't handle the [population] growth that we have (citizen of Watford City).

This fact of population loss and growth proved to be true not only in Watford City's population, Figure 16, but also in McKenzie County's population, Figure 18.

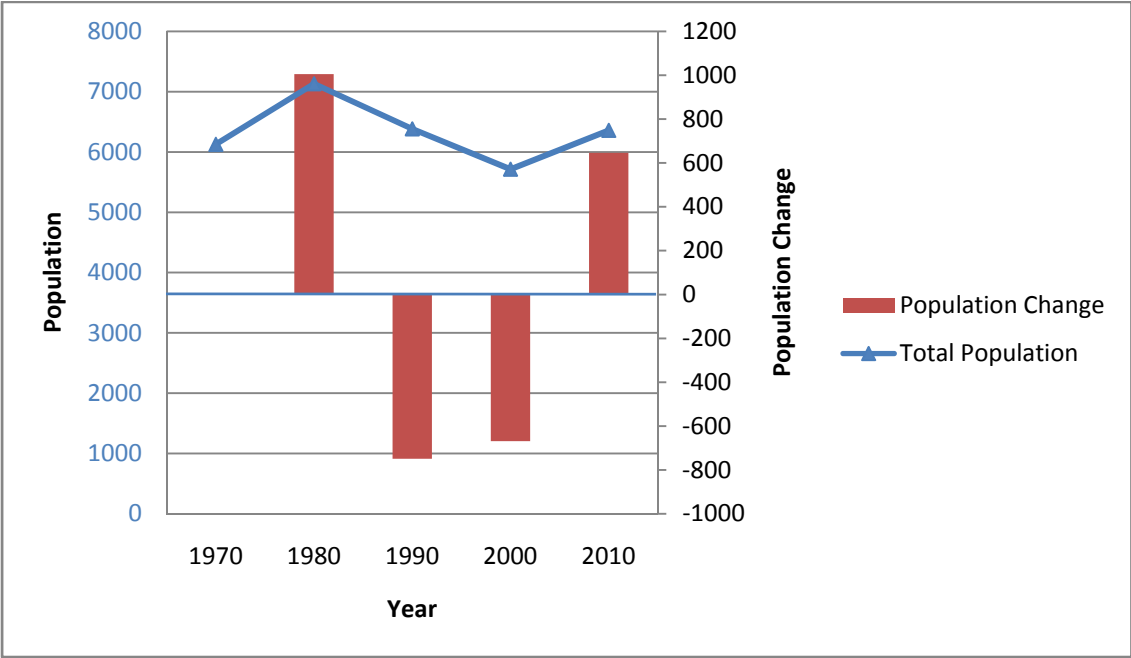


Figure 18. McKenzie County population dynamics 1970 to 2010. See Table A.12.

Out-migration is usually responsible for the drastic decrease in population, while in-migration is responsible for the increase in population. At times *return migration* (people who have moved away from the community for either education or employment opportunities and then moved back in subsequent years later) can also explain a rise in the population. School consolidation can further grow a local population as people move from one town to another, but this would not be represented in county population numbers since its inner county migration. Granted births, death, and natural change are also acting agents on a changing population, but cannot be representative of the dramatic

changes as seen above. Data for McKenzie County shows that the birth rate is relatively high with a slightly lower death rate (see Figure 19 below). This means that the county is naturally increasing in population. A high rate of net migration means further indicates that people are moving in to the community.

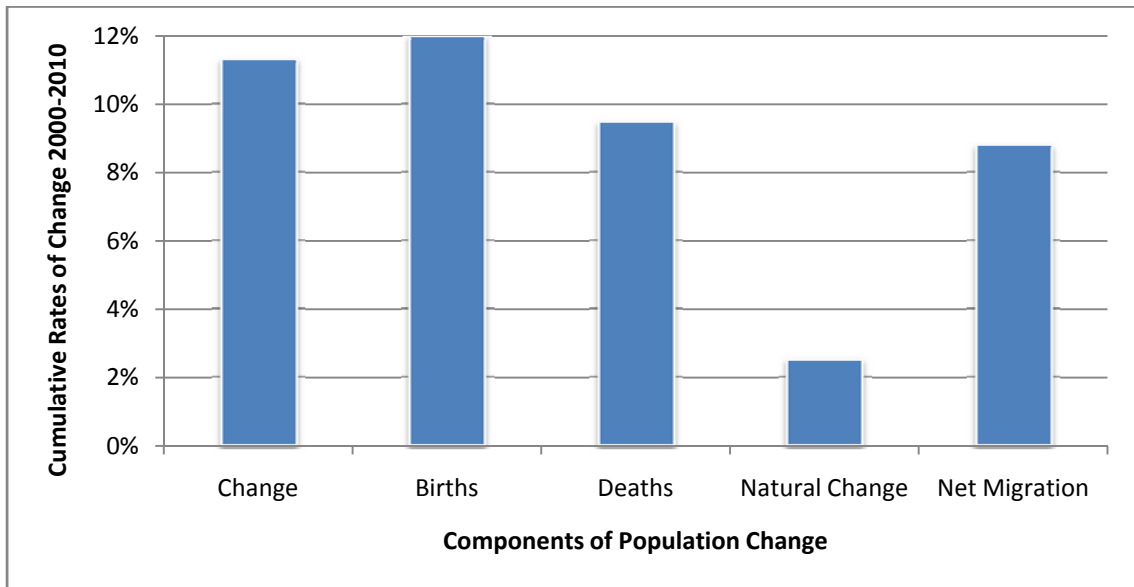


Figure 19. McKenzie County population components 2000 to 2010. See Table A.8.

Many people in the town recognize that their population is indeed growing and expect it to continue to grow in the near future:

you know you've got so many rumors, you have got our last Census was 1,500. We are kind of expecting it might come in closer to 2,000 but maybe not because we didn't really pull in any more land. But say we have 2,000 people now; we will easily go up to 2,500...if the adjoining land owners would sell and you just let it go and their developers building houses; it is hard to know (citizen of Watford City).

Community members feel that the oil industry will eventually begin to slow again anywhere from ten to twenty years, which they state will decrease the population slightly before stabilizing again (Foreman 2010).



### **4.2.3 Amenities**

Whether people are searching for built amenities (infrastructure & services) or natural amenities, one thing is definite; Watford City has them both. The availability of these amenities is due in part to the ability of community members to work together to create a vision for their community and through economic development to see their vision through to fruition. Although natural amenities are just that, natural, Watford City is located in a prime location to benefit from what the landscape has to offer.

#### **4.2.3.1 Built Amenities: Infrastructure and Services**

##### ***4.2.3.1.1 Housing***

One of the matters that economic development usually associates with is housing. As reported in a newspaper article headlined as “Housing continues to be a top priority,” McKenzie County, more specifically, Watford City is in need of housing (Foreman 2011). While population numbers have risen in the past few years, many believe that this is just the tip of the iceberg. Given the fact that the oil industry is expected to be around for another ten to twenty years, the local population is also expected to grow. This will create an increased demand for permanent and temporary housing. Current housing needs are being met by travel trailers in mobile home parks, campgrounds, and other temporary housing:

the mining industry and construction industry;...those people are only going to be here two or three years. So the companies come in and build camps; they might be a temporary motel. They get the term ‘man camp’ now because it is something that people like to see, but the ones I have seen look like a motel (citizen of Watford City).

Although there are many investors who have several housing projects underway, construction is hindered until the city can upgrade its water and sewer infrastructure as previously mentioned.

Many believe that despite the current demand for housing, the market will eventually reach equilibrium as the housing supply will increase; some feel this could take as long as 20 years to happen. As people continue to migrate into the community, the housing demands will also grow accordingly. With low income housing becoming available, some elderly residents are capitalizing on the economy by selling their rural homes and moving to town where they can reap amenity benefits; i.e. being closer to the hospital, grocery store, and other services. This in turn frees up some housing for the incoming population but does not even come close to satisfying the demand.

When asked in an interview if the people who are moving in are building new homes, it was answered that most are staying at the motel or in their camper trailers. The question was then followed up by asking why people are not renovating current infrastructure, and it was recognized that, “they could have built. They could have purchased an older home and remodeled and (it) would have ended up costing as much as building a new house,” (citizen of Watford City). A problem with individual families building a new home is where to build it. Most of the available land is either owned or being bought by investors and developers who are looking to capitalize on the housing demand. It was stated that land and housing value have grown considerably in the past few years, another reason why the elderly are selling their homes. Rentals and short term complexes are often the desires of the people moving in, but the community would like to

see those people move into more permanent lodging. The reasoning behind this is to help maintain economic stability in the future while retaining a vital community.

#### ***4.2.3.1.2 Schools***

Being able to meet the educational needs of a community is one of the highest priorities rural towns have. Some towns struggle with providing adequate education to students when enrollment and school funding decreases. Watford City, on the other hand, has to deal with increasing enrollment and making sure they have enough teachers to meet the demand of the students. As the overall population continues to grow in Watford City, the number of students also increases (Foreman 2010). It was never stated if the school gained enough students to move up another class ranking but the school has acknowledged the increase:

last year we saw a slight increase of about 20 students and now we are projecting a 40 to 50 student increase this year. So we are starting to see an increase in students that we hadn't seen before (citizen of Watford City).

Watford City high school was expecting 285 students for the 2010-2011 school year compared to 265 students at the end of the 2009-2010 school year (Foreman 2010). In discussion, it was said that the average class size for Watford City is around 40, but that number has waxed and waned the past few years with the economic boom. The high school is known to have a revolving door where some students are moving in whereas some are moving out.

In rural communities, concerns are not solely about changing enrollment, but also about the turnover rate of their teaching staff:

kind of interesting through the last boom, a lot of them were hired in the early 80s. They spent their whole career here and now they are retiring. We have had a high turnover rate recently; simply because the rate of retirement has been high and that has caused us the issue of growing pains of now having to replace a lot of

people. Many of them [are] staying in the community which is great, but that means also that there isn't an influx of housing that is going to be released for the new people coming in; we have that turnover rate. Now we expect to have one for quite a few years here as that group continues to decide to retire; about four or five every year (citizen of Watford City).

Again, whenever the topic of schools is mentioned, local sports usually find their way into the discussion. Many people noted that heading out to a ball game on a Friday or Saturday night is the major entertainment venue. High school athletics is of major importance to Watford City and the surrounding area as it provides a place for the community to gather:

they have done well and they have lead their teams have went to state [state tournament] in basketball and football. It is the kind of the joke [that] the main street rolls up because it is the state football game in Fargo, North Dakota, everybody drives, six hours to get to the championship football game. So yeah, very well supported and very well participated in (citizen of Watford City).

This display of support is representative of a community that works well together and is proud of their town. When a school system is well organized, people have no hesitations to help out when they can. A resident of Watford City stated that the education system supports the housing development because without housing they are not going to obtain students nor have places for incoming teachers to live.

#### ***4.2.3.1.3 Health Care***

Health care infrastructure in Watford City is more than adequate and provides an array of services to the community (McKenzie County Healthcare Systems). To begin with, the McKenzie County Memorial hospital has a trained staff to handle most urgent needs, with the ability to transport for more serious health conditions. As part of McKenzie County's economic development plan, they have designated funding that goes to the hospital which allows it to keep up-to-date with state-of-the-art equipment. By

visiting McKenzie County's health care systems website, it is easy to gain information about the various health care providers (McKenzie County Healthcare Systems). The fire department and ambulance services in Watford City are just as exceptional as the hospital, with many people recognizing that their emergency teams have one of the shortest response rates in the nation as proclaimed by many citizens of Watford City. This is crucial considering that as a population increases the community potentially will have an increase in demand for emergency services.

Aside from the emergency services and hospital, the town also has two pharmacies where people can purchase their medication, a clinic for basic health care needs, a retirement home, an assisted living complex, a health spa, and a wellness center. These facilities allow the community to live an active and healthy lifestyle. Another part of the economic development plan is maintain these health care services and funds have been directed to the construction of a new wellness center that will complement the existing center.

#### ***4.2.3.1.4 Businesses***

When it pertains to business infrastructure, Watford City is a very dynamic rural community that has a lot to offer. Besides the health care services, some of the more prominent local businesses include: the Long X trading post/visitors' center, a Water Park, numerous gas stations, the First International Bank and Trust, the McKenzie County Farmer newspaper, bars, several motels, the Showhall Café, the Badlands Hardware Store, insurance companies, Erin's Photography, a NAPA auto parts store, an auto dealership, a couple grocery stores, a co-op lumber supply store, , a golf course, a large capacity movie theatre, and more not listed here. From the variety of goods and

services that are provided, people do not have to travel great distances for everyday necessities and entertainment. Residents in nearby towns of Arnegard and Alexander commute to Watford City to take advantage of the town's infrastructural amenities as well. An interview pointed out that the rise in internet shopping allows access to goods typically found in more urban areas, while residing in a more rural environment.

Noticing that there are a couple of stores that offer similar products, it is surprising that one store does not outsell the other. This is due in part to friendly competition and that the community spreads its wealth across all businesses in town. At times new businesses can struggle in rural communities when they have competitors who have been located in the community longer and have a loyal consumer base. A citizen remarked that the people of Watford City aspire for new businesses which is apparent through the economic development assistance (Roughrider fund) they offer for business start-ups or renovations.

Other important infrastructure that Watford City offers includes: the Courthouse, City Hall, the Elementary and High School, Library, Children's Park, Chamber of Commerce, and Museum. In one of the conversations it was mentioned that it is important for rural communities to keep their hospitals operational and to have strong banks so that the business sector can remain vital.

#### **4.2.3.2 Natural Amenities**

The natural amenities that Watford City offers contribute to increasing the community's vitality. The major attractants include local features of: the nature park, (comprised of 6 acres of land featuring native plantings and a 3.8 acre pond adjacent to the city-wide bike path), various hiking trails, Lake Sakakawea, and Theodore Roosevelt

National Park. The confluence of the Missouri and Yellowstone Rivers, as well as Fort Union and Fort Buford were recognized as features that were not local, but relatively close by.

I think that is also part of the draw to the area is some of the natural resources that we have. You know as far as the Park and availability of going hiking or going out in the boat (citizen of Watford City).

A pitfall is the local climate during the non-summer months when the effects of winter set in and can make it difficult to enjoy the natural amenities. In addition, the remote location often times proves to be a challenge for some people:

it is great here but there is a certain population obviously that would never move here because they are city people or whatever they might be. But if you are a rural person that enjoys a little bit of space and room, I think there is some diversity [here] to offer. Do you like to hunt; do you like to fish? I think that is what is unique to us and that is a draw for us (citizen of Watford City).

Many community residents appreciate the exquisite landscape and the recreational opportunities it provides. For some, it is one of the largest components keeping them in the community. During the fall and winter months, many hunters are drawn to the prime hunting grounds that McKenzie County offers. A problem that locals explain is hunters trying to secure lodging. Whether natural amenities attract or retain people, one thing is certain; they affect the local economy.

#### **4.2.4 Social Capital**

The success of a rural community is measured not only by its economic, demographic, and amenity dimensions, but also through a community's ability to collaborate with each other and be active, in other words to produce social capital (Cook, Crull et al. 2009). Once again, the social capital dimension offers a more subjective measure of community vitality, as compared to the more objective dimensions of the

economy and population. The overall success of economic development in Watford City foretells of the strong work ethic that community members have, as well as their involvement. A remark was made that when the community decided to build the children's park, it was not too long before people just started showing up to the park with various tools to help see the project through. In addition, residents note that any time the school is in need of help, community members gladly offer service for various positions. The fire department, for instance, is a volunteer organization for which people sacrifices personal time in order to keep the community safe.

Community pride can be witnessed by simply driving down Main Street, attending a high school sporting event, or by taking part in the *Homefest* and *Ribfest* during the summer months. Watford City residents are very proud of their community and show it by having a clean, attractive, and economically successful Main Street that has recently undergone considerable renovation. Residents note that business competition is friendly and sees their individual success as the community's success. In terms of sports, they state that whenever there is a ball game, the stands are commonly filled with locals who are more than glad to proclaim their support of their home team. A citizen of the town remarked that the closeness of the community was one of largest benefits of living in a rural town.

When asked in general conversation why people are so engaged in the community, the common response among residents was, "because people in Watford City have a great social network, they are able to collaborate successfully, and are proud of their accomplishments." This is not saying that there are no naysayers in community,



because every town has its arguments, but overall people can reach a consensus on many issues:

I am sure you could find a faction that disagrees. But generally speaking, at least have them be informed and get 15 minutes with them, usually they go “yeah, you are right.” Seriously, I mean a lot of times people don’t want to think that deep and just want to bitch about something (citizen of Watford City).

Even newcomers to the community are welcome to become a part of the social networks as fliers are handed out that encourage them to take part in public activities.

Just to make sure that they are aware of the social parts of it [the community] and that they can be connected, because if you are not connected in some way, it is way easier to move than if you have some kind of social connection with people. Now you have a community...versus just some place you are living for a while (citizen of Watford City).

Additionally, a Watford City citizen noted that the community is very proactive in that they are always looking for the next project and what needs to be done; they are a “sooner” rather than “later” population.

Youth engagement is highly regarded by many active people on the various boards. Getting younger people involved in planning and decision-making processes is helpful in grooming future leaders. The City Council is known for enticing younger generations to become educated on how the local government operates and encourages them to run for positions once current members retire, “yeah, they (the young generations) are good leaders; they are good leaders in all of those areas (community matters),” (citizen of Watford City). This sense of enthusiasm for younger generations to take on larger roles in the community is then passed down to that generation which in turn will eventually be passed down to the next.

Community members and leaders are also very humble in acknowledging their individual role in making Watford City as successful as it is today. While there are a few

people who are responsible for “keeping the ball rolling” so to speak; everyone credits the community as a whole for the success. Without this powerful social capital, the town would not be in the condition it is today.

#### **4.2.5 Watford City Vitality, Challenges, and Future**

There is no doubt that the strength of Watford City’s rural vitality is fairly high. With the growing economy and population, coupled with successful economic development it would appear that this rural community is going to remain vital for quite a while. As the community becomes wealthier, starts to meet the current infrastructural demands, and retains its high level of social capital, the vitality will only continue to increase. Most of this recent success can be attributed to the community learning from the economic crash that happened in the 1980s and how they directed their efforts to improving the vitality in Watford City as explained by a community leader. That same desire to recover from the hardship they experienced is seen today as community members remain just as active. Some people feel that the overall vitality has decreased as both the population and the price of housing has skyrocketed. However, while this might seem true to some, the city is not ignoring what is happening and is taking the appropriate measures to handle the issues the best they can. This is what will allow the vitality to maintain its strength and grow.

Challenges identified by community members of Watford City include: the lack of housing, transportation infrastructure (being located a major distance from transportation hubs), the demand for employment opportunities as a result of an increasing population, community image, and increasing crime rates.

Even though these are all current challenges, the community is actively addressing them. The demand for housing has been discussed in exhaust earlier, as well as how the community is dealing with their transportation concerns through highway improvements. Employment on the other hand, is becoming of concern as the population continues to grow. As most of the incoming people are seeking jobs in the oil industry, they often bring spouses with them who also have to search for a job. In a conversation about this very topic it was stated,

a challenge for the community that we [have], I have had people that, you know, the husband moves here to work, the wife moves [too]; [either] a) the housing isn't good, b) the wife isn't sure, she doesn't know anybody. That first year is critical because some of those people will move off [if] the wife is not happy (citizen of Watford City).

While there are employment opportunities in the energy sector, there is not enough outside of oil mining to handle a drastic influx of people.

Other concerns with the increasing population are the community's overall image and increasing crime rates (Foreman 2010). A temporary solution to the housing dilemma is camper trailers and trailer parks. Community members are worried that this will make the town look dirtier while attracting people of a different lifestyle than what they want in their town. This is where effective planning comes in and can set regulations on temporary housing. In regards to the increasing crime rates, there are instances where people are moving to Watford City to secure employment in the oil industry, but are unable to be hired based on a background check. Rather than moving on and searching employment elsewhere, they will continue to reside in the city creating disturbances that require the attention of the authorities as remarked by a citizen of Watford City. The facts prove that as a population increases so do the demands on the

legal system which includes the police department. Watford City has responded to this increase by employing two more patrolmen and monitoring situations more closely (Foreman 2010).

Watford City's plan for the future as recognized by many community members includes maintaining the current level of economic development as well as the engagement of the people.

[The people would like to see] improvements on health care, whether it's a hospital, clinic, nursing home; we have excellent facilities for all of those things. Improvements as far as our recreational, like swimming pool, we want to see our swimming pool upgraded. We want to see our golf course upgraded; those types of things. We want to see tourism developed more; visitors center such as we have here type of thing you know so infrastructure, upgrade our street systems, our power systems (citizen of Watford City).

Currently, the community is planning to continue to improve its health care services through the Hospital, Nursing Home, and Wellness Center, as well as improve its recreational facilities that include the Water Park, Golf Course and Long X Visitors' Center. Improving infrastructure, building houses, and the road construction projects are issues currently being dealt with and have hopes of being completed in the near future (McKenzie County). The oil industry, as well as the population, is expected to continue growing for many years to come. A member of the community believes that at some point the oil industry will reach its peak and begin to become less important which will in turn lessen the population before it eventually stabilizes.

When asking about Watford City's future vitality, a community leader revealed that:

I think the prospects are very good. I think that the oil development is more of a long term play. I would really like to see Watford City going forward; when you look at the Theodore Roosevelt...Expressway Project, if...[highway] 85...be a four lane or otherwise, the idea of Watford City also become more diverse. I

think if we take advantage of the situation we have now and selling the community [it will get] people here and so forth. I look at it from the next generations to come, you know, 10-20 years from now, is Watford City going to be able to survive another departure of the oil industry and have we been diverse enough to survive? But I think the future is bright for Watford City and we are just hoping to make good decisions now; my hope is that we take advantage of the opportunity (citizen of Watford City).

The town's people recognize that as mining sector employment diminishes in the future, other economic sectors will be able to rise up and take over. They are also forecasting that the social capital will remain as strong as it is today and that people will continue on the "Watford City way, by remaining proactive and not resting," as proclaimed by a Watford City citizen. This statement alone renders the notion that Watford City will be able to maintain its rural community vitality.

## **Chapter Five - Conclusion**

The intent of this study was to gain a better understanding of rural community vitality. This was done through an in-depth investigation of two rural communities, Fort Benton, Montana and Watford City, North Dakota. The need for information about rural community vitality made this study significant in that it can offer insight as to how different dimensions relate to the vitality of rural communities. The dimensions explored were economy, population, amenities, and social capital.

Much research has been done on rural communities with regards to their economies, demographics, amenities, and social capital, but only a few works have addressed these issues jointly. The framework provided by Cook, et al., (2009) in conjunction with the data collected, allowed for a detailed investigation of the dimensions of rural community vitality. This study was unique in that it explored the dimensions jointly to make an overall assessment of vitality.

Rural community vitality was first explored by focusing on the local economy including economic structure, economic change, economic development efforts, the cost of living, and tourism. Secondly, vitality was assessed in terms of population dynamics and change over time. Thirdly, amenities were analyzed, both built amenities (housing, schools, health care, businesses) and natural amenities. Lastly, a look at social capital reflected community involvement and ability, which boosted the understanding of community vitality. An important notion that arose from this research is that the dimensions listed above suggest correlations. In the event where one dimension is affected, the rest will be affected as well. This is an important concept for understanding the vitality of rural communities.

This study yields several important implications for understanding community vitality. First of all, understanding the local economy and how it is changing over time is crucial for rural communities as noted by Woods (2010). In Fort Benton, there has been a decrease in employment in its largest employing sector, farming. Many people in the town feel that the fate of agriculture will ultimately be the fate of their community. As a result of this, other economic avenues are being explored. With agriculture, for instance, there might new opportunities for growth such as the increasing popularity of Kamut, which is an ancient highly nutritious grain that has gained popularity recently. It is organically raised and processed in the Fort Benton area. The town also has historical built assets and a natural setting which make it attractive as a tourist destination; however, the seasonality of tourism has limited its importance. Nonetheless the position or potential of Fort Benton for attracting outsiders is considerable.

A limiting factor is that the town does not offer an abundant level of goods and services that people may be in need of. The relatively close proximity to Great Falls is an asset to Fort Benton, especially when compared to more isolated rural communities but that also limits opportunities for the local service sector. Commuting to Great Falls for employment opportunities was discussed as a few residents are currently travelling for work, but the increasing price of gas sets a limit to long distance commutes. Nonetheless, Fort Benton's access to a metropolitan area is a benefit.

Watford City, on the other hand, is recently dealing with rapid employment growth as result of oil mining activities. While this sparks additional employment opportunities in other sectors, it creates a strain on the town's resources. At the same time, when other economic sectors were expanding, farm employment, however,

continues to decline in McKenzie County (as it did in Chouteau County). Tourism in Watford City was recognized as having an economic presence but was not proclaimed as one of the leading players of the economy. In another sense, Watford City has well established economic development efforts in place. In the past, these efforts have revolved around stabilizing employment, but it now faces a much different situation given the rapid employment growth. Learning how to deal with the changes in rural employment, as well as how to be prepared for future changes with effective development efforts, has a very important role in a community's ability to secure vitality.

This investigation clearly revealed the relationship between population change and community vitality. Throughout the investigation it became apparent that population change is commonly associated with community vitality. In Fort Benton community leaders frequently alluded to the need for boosting the population in order to stay vital. The town is currently becoming an aging community as both qualitative and quantitative sources revealed. People feel that if nothing is done to attract newcomers, then Fort Benton may eventually experience the same fate as other rural communities that had to consolidate their schools and resources in order to maintain a sense of community.

Watford City is seeing a growth of population in many of the age cohorts. There is a good deal of return migration where people are moving back to the community in their 20s and 30s, coupled with the fact that some young adults are not leaving Watford City in order to capitalize on the employment opportunities. However, as seen at the county level, both Chouteau County and McKenzie County are experiencing similar population trends of losing youth, while becoming older with an increase of people in their fifties and older. This is rather noteworthy that both counties are economically



different but similar in their population dynamics. How this plays a role in a community remaining vital for the future is crucial to understand. As a population slowly becomes older and does not regenerate itself through in-migration or births, then there is a declining pool of available people to manage and lead the community once the elders are no longer able.

In regards to a changing population, changing school enrollment was the other topic which was commonly referenced in the qualitative data sources. Enrollment has a strong correlation with the influx and outflow of the total population. As people migrate in to a community, enrollment numbers typically increase, whereas they decline as people migrate out. Having adequate infrastructure is crucial for population retention and school enrollment. Qualitative sources revealed that the topics of *housing* and *schools* are meaningful to rural communities, hence why they were discussed in great length in this investigation.

The quality and availability of built amenities in these rural communities was often associated with social capital and economic development efforts in conjunction with the economy as a whole. One of the major infrastructural issues in both towns is having available housing for the population that is looking to migrate into the community. Limitations on the housing infrastructure include having readily available lots to place houses, having adequate utilities such as water and sewer present, and the financial power to pay for it all. Being able to have an adequate supply of housing coincides with successful development in other areas of the community as well.

Having infrastructural amenities available is crucial to all aspects of community vitality including the economy as recognized by McGranahan and Beale (2002). Both

Fort Benton and Watford City have an array of built amenities that affect the towns' vitality. The presence of schools, health care, and other various businesses make the towns attractive places to live in. The higher quality of the available built amenities typically results in making rural living easier. Besides built amenities, there are natural amenities. Natural amenities are commonly site-specific in that some rural communities are going to have features that others do not. Fort Benton has different natural amenities than Watford City. Natural amenities allow current residents to enjoy their community's natural beauty and also attract visitors – and thereby amenities add to the vitality of a rural community.

Social capital offered a slightly different look at the community through qualitative sources, rather than from the economic and population numeric data. The research rendered the notion that the more engaged the people of the community are, the more vital the town will be in the future (Cavaye, 2001). This was apparent in Fort Benton and Watford City as many community leaders reported that the success and future for their town is reliant upon the engagement of the people and how they handle the change they are subjected to. When a community works well together, economic development efforts are more easily advanced. A poor local economy can hinder development efforts even if a community is proactive because of not having financial abilities. However, if social capital is strong, the community might eventually forge plans that could aid the economy. Both of these communities have a strong sense of rural pride in that they want to see their town remain vital in the future. When asking community leaders what they thought the future had in store for their town, they remarked that there are challenges to overcome, but they are hopeful for a bright future.

Social capital was a dimension that was not expected to be as significant as it turned out to be. When the research began, it was a struggle where to place the notion of social capital. It was debated as to whether it should be regarded as a part of the economy, more specifically as a part of economic development. As the research progresses, it became apparent that this dimension had a more encompassing role to rural community vitality. For one, it provided insight on how community members interacted with each other where the quantitative data did not allow for that analysis. Despite the significance of this dimension, the importance of the other dimensions should not be discredited in that it is the connectivity of the dimensions together that is critical for community vitality.

These findings support the notion that rural vitality is town specific in the sense that each town has its' respective strength that makes community vitality vary from place to place. Nonetheless, understanding the dimensions used to assess vitality are critical. For instance, one dimension might be stronger than another which could render a community being vital despite not being as strong in another dimension.

So, "why do some towns wither away when some continue to prosper?" Rural communities, like those of Fort Benton and Watford City, have their respective strengths and weaknesses in the dimensions of economy, population, amenities, and social capital; all of which contribute to a town's vitality. Other rural communities might not have as much strength in these four dimensions, which would make them less vital and render them a higher risk of withering away. It would be simplistic and inappropriate to have an approach where a rural community's vitality is assessed only on the basis of one dimension. Rural communities are dynamic in that one might have success in a particular

dimension whereas another may not. Either way, it is not an individual dimension by itself that makes for a community's vitality; rather, rural community vitality is determined by the combination of those dimensions and the relationships between them that create and shape vitality.

The most important implication of this research is that it recognized that communities who had relatively stable economies, coupled with a stable or growing populations, adequate amenities, and high levels of social capital were likely to be more vital. This research informs that rural community vitality should not be determined solely by quantitative or qualitative data, but by the two together. The most important component of a rural community is the people and their concerns for their town. If they want their town to be vital, it is likely that they are going to be proactive to make it be so. This is where the importance of social capital comes in, which coupled with the other dimensions allows for an assessment of vitality.

Future analysis of rural communities, using the same dimensions for analysis as used in this thesis, would be beneficial in expanding the knowledge of rural community vitality. For this investigation, the analysis was limited to two rural communities of similar population structure in the Northwest of the United States. While these communities provided much insight to the dynamics of rural vitality, results could vary for rural communities in different locations. A replication of this study, including more towns in other rural regions in the United States, may add to an understanding of rural vitality and the linkages between vitality and the dimensions used—and perhaps additional dimensions.

The importance of this study is that it provides a framework for people to assess rural community vitality; whether they are rural researchers or community members who are interested in rural community matters. As economies continue to evolve and populations continue to grow, people must take into consideration how rural communities are affected. Assessing a community's success and promise for the future should not only be on the minds of economic development professionals, but also on the minds of the entire community. Indeed, small towns are increasingly concerned about staying both rural and vital. Are rural communities a dying breed? Will communities who are economically successful develop into urban areas, while those that are not wither away? In a world that is consistently undergoing change, rural community vitality depends upon communities being aware of their environment and the encroaching effects of surrounding areas. However, as the qualitative data alluded, community vitality depends on the residents of the town and how they respond to the changes they encounter. Again, as a citizen noted, "if a community wants to change, it will; if it does not, it will not."

## References

- Albrecht, D.E. "Recreational and Tourism Development vs. The Decline of Agriculture in Southern Utah." In *Small Town and Rural Economic Development: A Case Studies Approach*, ed. P.V. Schaeffer, Loveridge, S., 107-114. Westport, Conn.: Praeger Publishers, 2000.
- Bealer, R.C. , F.K. Willits, and W.P. Kuvlesky. "The Meaning of 'Rurality' in American Society: Some Implications of Alternative Definitions." *Rural Sociology* 30, no. 3 (1965): 255-266.
- Bear Paw Development Corporation. <http://www.bearpaw.org/> (accessed 4/27/2011).
- Bureau of Economic Analysis. "Regional Economic Information System." <http://www.bea.gov/regional> (accessed 2011).
- Besser, Terry L., Nicholas Recker, and Kerry Agnitsch. "The Impact of Economic Shocks on Quality of Life and Social Capital in Small Towns." *Rural Sociology* 73, no. 4 (2008): 580-604.
- Besser, Terry L., Nicholas Recker, and Matthew Parker. "The Impact of New Employers from the Outside, the Growth of Local Capitalism, and New Amenities on the Social and Economic Welfare of Small Towns." *Economic Development Quarterly* 23, no. 4 (2009): 306-316.
- Blakely, Edward J., and Ted K. Bradshaw. "Concepts and Theories of Local Economic Development." In *Planning Local Economic Development*, 53-73: Sage, 2002.
- Cavaye, Jim. "Rural Community Development - New Challenges and Enduring Dilemmas." *Journal of Regional Analysis & Policy* 31, no. 2 (2001): 109-124.
- Cawley, M. "Adding Value Locally through Integrated Rural Tourism: Lessons from Ireland." In *The Next Rural Economies: Constructing Rural Place in Global Economies*, ed. Greg Halseth, Sean Markey and David Bruce, 89-101. Wallingford, UK ; Cambridge, MA: CABI, 2010.
- Chouteau County Montana. <http://www.co.chouteau.mt.us/> (accessed 4/29/2011).
- Conroy, M.E. "The Challenges of Economic Geography in Defining, Creating, and Defending Sustainable Communities." In *Global and local challenges to theory, practice and teaching in economic geography*, ed. A. Glasmeier, R. Leichenko and K. Fuellhart. Washington, D.C., 1997.

- Cook, Christine C., Sue R. Crull, Marilyn Bruin, J., Becky L. Yust, Mack C., Shelley, Sharon Laux, Jean Memken, Shirley Niemeyer, and B. J. White. "Evidence of a Housing Decision Chain in Rural Community Vitality." *Rural Sociology* 74, no. 1 (2009): 113-137.
- Crouch, D. "Tourism, Consumption and Rurality." In *Handbook of Rural Studies*, ed. P. J. Cloke, Marsden, T., & Mooney, P. H., 356-364. London: Sage, 2006.
- Cutchin, M. P. "Physician Retention in Rural Communities: The Perspective of Experiential Place Integration." *Health and Place* 3 (1997): 25-41.
- Deweese, Sarah, Linda Lobao, and Louis E. Swanson. "Local Economic Development in an Age of Devolution: The Question of Rural Localities." *Rural Sociology* 68, no. 2 (2003): 182-206.
- Drabenstott, Mark., and Jason Henderson. "A New Rural Economy: A New Role for Public Policy." *Center for the Study of Rural America* 1, no. 4 (2006): 1-6.
- Enterprises, Taylor, "Montana Flour and Grains." <http://www.montanafLOUR.com/> (accessed 4/27/2011).
- Farlex Inc., "The Free Dictionary." <http://www.thefreedictionary.com/quality+of+life> (accessed 4/20/2011).
- Flora, CB., J.L. Flora, and S. Fey. "Social Capital and Community." In *Rural Communities: Legacy and Change*, 49-73. Boulder, Colo.: Westview Press, 2003.
- Florida, Richard. *The Rise of the Creative Class: And How It's Transforming Work, Leisure, Community, and Everyday Life*. New York: Basic Books, 2002.
- Foreman, Tina. "From Building Permits to Crime, City Sees Activity Skyrocketing." *McKenzie County Farmer*, 8/25/2010 2010.
- \_\_\_\_\_. "Study Says Watford to Grow to 2,655 People." *McKenzie County Farmer*, December 22, 2010.
- \_\_\_\_\_. "Watford Sees Jump in School Enrollment." *McKenzie County Farmer*, August 18, 2010.
- \_\_\_\_\_. "Housing Continues to Be a Top Priority." *McKenzie County Farmer*, April 6, 2011.
- Fort Benton Restoration Committee. <http://www.fortbenton.com/fbrestore/history.htm> (accessed 4/29/2011).

- Fuguitt, Glenn V., Calvin L. Beale, and Stephen J. Tordella. "Recent Trends in Older Population Change and Migration for Nonmetro Areas, 1970-2000." *Rural America* 17, no. 3 (2002): 11-19.
- Gober, Patricia, Kevin McHugh, and Denis Leclerc. "Job-Rich but Housing-Poor: The Dilemma of a Western Amenity Town." *The Professional Geographer* 45, no. 1 (1993): 12-20.
- Halseth, G., Sean Markey, B. Reimer, and D. Manson. "Introduction: The Next Rural Economies." In *The Next Rural Economies: Constructing Rural Place in Global Economies*, ed. Greg Halseth, Sean Markey and David Bruce, 1-16. Wallingford, UK ; Cambridge, MA: CABI, 2010.
- Harrington, Lisa M.B. "The Us Great Plains, Change, and Place Development." In *The Next Rural Economies: Constructing Rural Place in Global Economies*, ed. Sean Markey and David Bruce Greg Halseth, 32-44. Wallingford, UK ; Cambridge, MA: CABI, 2010.
- Kansas Inc. *County Economic Vitality & Distress Report: Report Update*. Topeka, Kan.: Kansas Inc., 1996. Government Publication.
- Kim, K.K., D.W. Marcouiller, and S.C. Deller. "Natural Amenities and Rural Development: Understanding Spatial and Distributional Attributes." *Growth and Change* 36, no. 2 (2005): 273-297.
- Klosterman, Richard E. . "Cohort-Component Technique: An Introduction." In *Community Analysis and Planning Techniques*, ed. Richard. E. Klosterman, 51-64. Savage, Maryland: Rowman & Littlefield, 1990.
- Kosmix Corporation. [http://www.kosmix.com/topic/Watford\\_City,\\_North\\_Dakota](http://www.kosmix.com/topic/Watford_City,_North_Dakota) (accessed 4/29/2011).
- Loveridge, S. "Introduction: Maintaining and Enhancing the Community Economic Base." In *Small Town and Rural Economic Development: A Case Studies Approach*, ed. P.V. Schaeffer, Loveridge, S. , 57-59. Westport, Conn: Praeger, 2000.
- Marquart-Pyatt, Sandra T., and Peggy Petrzelka. "Trust, the Democratic Process, and Involvement in a Rural Community." *Rural Sociology* 73, no. 2 (2008): 250-274.
- McGranahan, David A. "Natural Amenities Drive Rural Population Change." *Agricultural Economic Report* 781 (1999).
- McGranahan, David, and Calvin L. Beale. "Understanding Rural Population Loss." *Rural America* 17, no. 4 (2002): 2-11.



- McKenzie County. <http://www.4eyes.net/> (accessed 4/27/2011).
- McKenzie County Healthcare Systems. <http://www.mckenziehealth.com/> (accessed 4/27/2010).
- Merriam-Webster, "Merriam-Webster Online Dictionary." <http://www.merriam-webster.com> (accessed).
- Missouri River Medical Center. <http://mrmcfb.org/> (accessed 4/27/2011).
- Montana High School Association, "Montana High School Enrollment Numbers." <http://www.mhsa.org/Enrollment/2010-11FallEnrollmentAlphabetically.pdf> (accessed 4/27/2011).
- O'Brien, David J., Andrew Raedeke, and Edward W. Hassinger. "The Social Networks of Leaders in More or Less Viable Communities Six Years Later: A Research Note." *Rural Sociology* 63, no. 1 (1998): 109-127.
- Power, Thomas M., and Richard N Barrett. *Post-Cowboy Economics. Pay and Prosperity in the New American West*. Washington, D.C.: Island Press, 2001.
- Reeder, Richard J., and Dennis M. Brown. *Recreation, Tourism, and Rural Well-Being*. U.S. Department of Agriculture Economic Research Service, 2005.
- Reeves, Edward B., and Robert A. Bylund. "Are Rural Schools Inferior to Urban Schools? A Multilevel Analysis of School Accountability Trends in Kentucky." *Rural Sociology* 70, no. 3 (2005): 360-386.
- Salamon, Sonya. "From Hometown to Nontown: Rural Community Effects of Suburbanization." *Rural Sociology* 68, no. 1 (2003): 1-24.
- Shaffer, Ron, Steve Deller, and Dave Marcouiller. "Rethinking Community Economic Development." *Economic Development Quarterly* 20, no. 1 (2006): 59-74.
- Sharpa, J.S., K. Agnitsch, V. Ryanb, and J. Flora. "Social Infrastructure and Community Economic Development Strategies: The Case of Self-Development and Industrial Recruitment in Rural Iowa." *Journal of Rural Studies* 18 (2002): 405-417.
- Sibley, D. *Geographies of Exclusion: Society and Difference in the West*. New York: Routledge, 1995.
- Storey, D. "Partnerships, People, and Place: Lauding the Local in Rural Development." In *The Next Rural Economies: Constructing Rural Place in Global Economies*, ed. Sean Markey and David Bruce Greg Halseth, 155-165. Wallingford, UK ; Cambridge, MA: CABI, 2010.
- Summer Celebration. <http://www.fortbenton.com/sumcel/> (accessed 5/3/2011).

- U.S. Bureau of the Census. <http://www.census.gov> (accessed 2010 & 2011).
- U.S. Climate Data. <http://www.usclimatedata.com> (accessed 4/12/2011).
- Veenhoven, R. *How Satisfying Is Rural Life? Fact and Value*. Bonn, Germany: Society for agricultural policy research in rural society, 1994.
- Vias, Alexander C. "Jobs Follow People in the Rural Rocky Mountain West." *Rural Development Perspectives* 14, no. 2 (1999): 14-23.
- von Reichert, Christiane, and Gundars Rudzitis. "Rent and Wage Effects on the Choice of Amenity Destinations of Labor Force and Nonlabor Force Migrants: A Note." *Journal of Regional Science* 34, no. 3 (1994): 445-455.
- Whisler, R.L. , B.S. Waldorf, G.F. Mulligan, and D.A. Plane. "Quality of Life and the Migration of the College-Educated: A Life-Course Approach." *Growth and Change* 39, no. 1 (2008): 58-94.
- Woods, M. "The Political Economies of Place in the Emergent Global Countryside: Stories from Rural Wales." In *The Next Rural Economies: Constructing Rural Place in Global Economies*, ed. Greg Halseth, Sean Markey and David Bruce, 166-178. Wallingford, UK ; Cambridge, MA: CABI, 2010.
- Yust, B.L., B.J. White, S. Laux, M.J. Bruin, S.R. Crull, and C.C. Cook. "Housing Needs in Rural Communities." In *annual conference and exposition of the American Association of Family and Consumer Sciences*. Minneapolis, MN, 2005.
- Ziebarth, Ann, Kathleen Prochaska-Cue, and Bonnie Shrewsbury. "Growth and Locational Impacts for Housing in Small Communities." *Rural Sociology* 62, no. 1 (1997): 111-125.
- Zimmerman, Julie N. "Does It or Doesn't It? Geographic Differences and the Costs of Living." *Rural Sociology* 73, no. 3 (2008): 463-486.

## Appendix

**Table A.1. Fort Benton and Watford City Climate Data**

| Town         | Average Conditions        | Jan  | Feb  | March | April | May  | June | July | Aug  | Sep  | Oct  | Nov  | Dec  |
|--------------|---------------------------|------|------|-------|-------|------|------|------|------|------|------|------|------|
| Fort Benton  | High Temp. (in °F)        | 35   | 41   | 51    | 63    | 72   | 79   | 87   | 86   | 75   | 64   | 47   | 37   |
|              | Low Temp. (in °F)         | 10   | 15   | 23    | 32    | 41   | 49   | 53   | 52   | 42   | 32   | 21   | 13   |
|              | Precipitation (in inches) | 0.55 | 0.39 | 0.87  | 1.22  | 2.28 | 2.44 | 1.34 | 1.54 | 1.22 | 0.79 | 0.55 | 0.51 |
| Watford City | High Temp. (in °F)        | 19   | 28   | 39    | 55    | 68   | 77   | 84   | 83   | 71   | 57   | 37   | 25   |
|              | Low Temp. (in °F)         | -3   | 6    | 16    | 28    | 40   | 49   | 54   | 52   | 40   | 29   | 15   | 3    |
|              | Precipitation (in inches) | 0.43 | 0.39 | 0.55  | 1.02  | 2.13 | 3.03 | 2.13 | 1.54 | 1.3  | 0.79 | 0.67 | 0.39 |

Source: United States Climate Data: <http://www.usclimatedata.com/>

**Table A.2. Occurrence of Themes in Transcripts**

| Fort Benton (16 transcripts)<br>Themes | Occurrence of<br>Themes | Percent | Watford City (24 transcripts)<br>Themes | Occurrence of<br>Themes | Percent |
|--|-------------------------|---------|---|-------------------------|---------|
| Amenities                              | 9                       | 10.0    | Amenities                               | 11                      | 8.1     |
| Challenges                             | 9                       | 10.0    | Challenges                              | 8                       | 5.9     |
| Changes                                | 4                       | 4.4     | Changes                                 | 13                      | 9.6     |
| Community Involvement                  | 14                      | 15.6    | Community Involvement                   | 24                      | 17.8    |
| Economy                                | 19                      | 21.1    | Economy                                 | 25                      | 18.5    |
| Future                                 | 6                       | 6.7     | Future                                  | 12                      | 8.9     |
| Historical Background                  | 1                       | 1.1     | Historical Background                   | 2                       | 1.5     |
| Housing                                | 3                       | 3.3     | Housing                                 | 10                      | 7.4     |
| Relevant Issues/Open                   | 11                      | 12.2    | Relevant Issues/Open                    | 16                      | 11.9    |
| Makes Town Tick                        | 2                       | 2.2     | Makes Town Tick                         | 3                       | 2.2     |
| School System                          | 3                       | 3.3     | School System                           | 3                       | 2.2     |
| Tourism                                | 2                       | 2.2     | Tourism                                 | 1                       | 0.7     |
| Vibrancy                               | 3                       | 3.3     | Vibrancy                                | 4                       | 3.0     |
| What Can/Should be done.               | 4                       | 4.4     | What Can/Should be done.                | 3                       | 2.2     |
| Total                                  | 90                      | 100.0   | Total # of References:                  | 135                     | 100.0   |

**Table A.3. United States and Chouteau County 2001 and 2008 Employment, Employment Change, Total and by Sector**

| Sector             | United States   |                 | Chouteau County |                 | Percent Change 2001-2008 |
|--------------------|-----------------|-----------------|-----------------|-----------------|--------------------------|
|                    | 2001 Employment | 2008 Employment | 2001 Employment | 2008 Employment |                          |
| Total              | 165,510,200     | 181,755,100     | 3,033           | 2,928           | -3%                      |
| Farm               | 3,060,000       | 2,642,000       | 937             | 785             | -16%                     |
| ForFish etc        | 801,499         | 858,500         | 117             | 117             | 0%                       |
| Mining             | 806,400         | 1,155,900       | 10              | 17              | 70%                      |
| Utilities          | 615,800         | 590,700         | 10              | 11              | 10%                      |
| Construction       | 9,817,700       | 11,151,000      | 80              | 123             | 54%                      |
| Manufacture        | 16,913,600      | 14,090,900      | 52              | 47              | -10%                     |
| Wholesale          | 6,231,400       | 6,570,500       | 65              | 77              | 18%                      |
| Retail             | 18,256,800      | 18,862,200      | 263             | 274             | 4%                       |
| TranspWareh        | 5,478,000       | 6,019,500       | 38              | 46              | 21%                      |
| Information        | 4,047,800       | 3,529,800       | <del>26</del>   | <del>35</del>   | 35%                      |
| Finance Insur      | 7,805,600       | 9,023,400       | 141             | <del>128</del>  | -9%                      |
| Real Est&Rent      | 5,547,401       | 8,369,700       | 88              | <del>406</del>  | 20%                      |
| Prof,Scien,Tech    | 10,272,800      | 12,347,100      | 75              | <del>72</del>   | -4%                      |
| Management         | 1,786,300       | 1,993,300       | 0               | 0               | 0%                       |
| Admin & Waste      | 9,604,500       | 10,999,200      | <del>44</del>   | <del>20</del>   | 82%                      |
| Education          | 3,019,300       | 3,877,000       | 19              | 17              | -11%                     |
| Health & Social    | 15,247,400      | 18,593,400      | 202             | 187             | -7%                      |
| Arts, Entert, Recr | 3,165,100       | 3,860,200       | 42              | 50              | 19%                      |
| Accommod, Food     | 10,807,200      | 12,314,700      | 144             | 151             | 5%                       |
| Oth. private serv  | 9,074,600       | 10,329,100      | 161             | <del>150</del>  | -7%                      |
| Federal Civilian   | 2,729,000       | 2,817,000       | 40              | 37              | -8%                      |
| Military           | 2,071,000       | 2,079,000       | 31              | 26              | -16%                     |
| State Gvmt         | 5,031,000       | 5,259,000       | 25              | <del>20</del>   | -20%                     |
| Local Gvmt         | 13,320,000      | 14,422,000      | 456             | 432             | -5%                      |

Notes: Stuck-out numbers symbolize values that are not disclosed and were estimated. Employment change numbers are rates; for percents, multiply by 100. REIS data for the United States and for Chouteau County was accessed 9/22/2010.

Source: Bureau of Economic Analysis. Regional Economic Information System.

**Table A.4. United States and Chouteau County 2008 Employment, Employment Shares, Location Quotient, Total and by Sector**

| Sector             | United States   |                        | Chouteau County |                        |                        |
|--------------------|-----------------|------------------------|-----------------|------------------------|------------------------|
|                    | 2008 Employment | 2008 Employment Shares | 2008 Employment | 2008 Employment Shares | 2008 Location Quotient |
| Total              | 181,755,100     | 100.0%                 | 2,928           | 100.0%                 |                        |
| Farm               | 2,642,000       | 1.5%                   | 785             | 26.8%                  | 18.4                   |
| ForFish etc        | 858,500         | 0.5%                   | 117             | 4.0%                   | 8.5                    |
| Mining             | 1,155,900       | 0.6%                   | 17              | 0.6%                   | 0.9                    |
| Utilities          | 590,700         | 0.3%                   | 11              | 0.4%                   | 1.2                    |
| Construction       | 11,151,000      | 6.1%                   | 123             | 4.2%                   | 0.7                    |
| Manufacture        | 14,090,900      | 7.8%                   | 47              | 1.6%                   | 0.2                    |
| Wholesale          | 6,570,500       | 3.6%                   | 77              | 2.6%                   | 0.7                    |
| Retail             | 18,862,200      | 10.4%                  | 274             | 9.4%                   | 0.9                    |
| TranspWareh        | 6,019,500       | 3.3%                   | 46              | 1.6%                   | 0.5                    |
| Information        | 3,529,800       | 1.9%                   | <del>35</del>   | 1.2%                   | 0.6                    |
| Finance Insur      | 9,023,400       | 5.0%                   | <del>128</del>  | 4.4%                   | 0.9                    |
| Real Est&Rent      | 8,369,700       | 4.6%                   | <del>106</del>  | 3.6%                   | 0.8                    |
| Prof,Scien,Tech    | 12,347,100      | 6.8%                   | <del>72</del>   | 2.5%                   | 0.4                    |
| Management         | 1,993,300       | 1.1%                   | 0               | 0.0%                   | 0.0                    |
| Admin & Waste      | 10,999,200      | 6.1%                   | <del>20</del>   | 0.7%                   | 0.1                    |
| Education          | 3,877,000       | 2.1%                   | 17              | 0.6%                   | 0.3                    |
| Health & Social    | 18,593,400      | 10.2%                  | 187             | 6.4%                   | 0.6                    |
| Arts, Entert, Recr | 3,860,200       | 2.1%                   | 50              | 1.7%                   | 0.8                    |
| Accommod, Food     | 12,314,700      | 6.8%                   | 151             | 5.2%                   | 0.8                    |
| Oth. private serv  | 10,329,100      | 5.7%                   | <del>150</del>  | 5.1%                   | 0.9                    |
| Federal Civilian   | 2,817,000       | 1.5%                   | 37              | 1.3%                   | 0.8                    |
| Military           | 2,079,000       | 1.1%                   | 26              | 0.9%                   | 0.8                    |
| State Gvmt         | 5,259,000       | 2.9%                   | <del>20</del>   | 0.7%                   | 0.2                    |
| Local Gvmt         | 14,422,000      | 7.9%                   | 432             | 14.8%                  | 1.9                    |

Notes: Struck-out numbers symbolize values that are not disclosed and were estimated. REIS data for the US and for Chouteau County was accessed 9/22/2010.

Source: Bureau of Economic Analysis. Regional Economic Information System.

**Table A.5. Watford City and Fort Benton Population 2000 to 2010**

| Year | Watford City, North Dakota<br>Population | Fort Benton, Montana<br>Population |
|------|--|------------------------------------|
| 2000 | 1,426                                    | 1,596                              |
| 2001 | 1,389                                    | 1,540                              |
| 2002 | 1,382                                    | 1,502                              |
| 2003 | 1,343                                    | 1,479                              |
| 2004 | 1,327                                    | 1,458                              |
| 2005 | 1,337                                    | 1,434                              |
| 2006 | 1,330                                    | 1,424                              |
| 2007 | 1,350                                    | 1,447                              |
| 2008 | 1,364                                    | 1,448                              |
| 2009 | 1,399                                    | 1,443                              |
| 2010 | 1,744                                    | 1,464                              |

Notes: 2000 to 2009 population estimates, 2010 Census counts.

Source: U.S. Bureau of the Census.

**Table A.6. Chouteau County and Fort Benton Population, Total by Age Group**

| Age Group | Chouteau County |                 |                 |                      | Fort Benton     |                      |
|-----------|-----------------|-----------------|-----------------|----------------------|-----------------|----------------------|
|           | 1990 Population | 2000 Population | 2010 Population | Percent in Age Group | 2010 Population | Percent in Age Group |
| Total     | 5,448           | 5,975           | 5,813           | 100.0                | 1,464           | 100.0                |
| 0-4       | 391             | 386             | 415             | 7.2                  | 64              | 4.4                  |
| 5-9       | 461             | 458             | 431             | 8.5                  | 70              | 4.8                  |
| 10-14     | 440             | 540             | 413             | 8.1                  | 78              | 5.3                  |
| 15-19     | 352             | 488             | 433             | 6.5                  | 75              | 5.1                  |
| 20-24     | 201             | 238             | 288             | 3.7                  | 46              | 3.1                  |
| 25-29     | 328             | 234             | 283             | 6.0                  | 59              | 4.0                  |
| 30-34     | 385             | 295             | 274             | 7.1                  | 61              | 4.2                  |
| 35-39     | 455             | 411             | 265             | 8.4                  | 54              | 3.7                  |
| 40-44     | 388             | 498             | 317             | 7.1                  | 74              | 5.1                  |
| 45-49     | 263             | 482             | 394             | 4.8                  | 99              | 6.8                  |
| 50-54     | 250             | 357             | 452             | 4.6                  | 134             | 9.2                  |
| 55-59     | 278             | 298             | 471             | 5.1                  | 155             | 10.6                 |
| 60-64     | 302             | 254             | 369             | 5.5                  | 89              | 6.1                  |
| 65-69     | 294             | 252             | 288             | 5.4                  | 96              | 6.6                  |
| 70-74     | 262             | 248             | 225             | 4.8                  | 84              | 5.7                  |
| 75-79     | 177             | 202             | 195             | 3.2                  | 67              | 4.6                  |
| 80-84     | 126             | 189             | 152             | 2.3                  | 70              | 4.8                  |
| 85+       | 95              | 145             | 148             | 1.7                  | 89              | 6.1                  |

Source: U.S. Bureau of the Census.

**Table A.7. Chouteau County Population Change**

| Year | PopChouteau | 10 Year Change |
|------|-------------|----------------|
| 1970 | 6,473       |                |
| 1980 | 6,092       | -381           |
| 1990 | 5,422       | -670           |
| 2000 | 5,749       | 327            |
| 2010 | 5,813       | 64             |

Source: U.S. Bureau of the Census.

| County   | 2000 Census<br>Population | 2010 Census<br>Population | Cumulative Rates of Change |        |        |                |               |
|----------|---------------------------|---------------------------|----------------------------|--------|--------|----------------|---------------|
|          |                           |                           | Total Change               | Births | Deaths | Natural Change | Net Migration |
| Chouteau | 5,749                     | 5,813                     | 1.1%                       | 7.5%   | 10.0%  | -2.5%          | 3.6%          |
| McKenzie | 5,714                     | 6,360                     | 11.3%                      | 12.0%  | 9.5%   | 2.5%           | 8.8%          |

Source: U.S. Bureau of the Census. 2009-2010 components extrapolated from 2000-2009 components population estimates program.

**Table A.8. United States and McKenzie County 2001 and 2008 Employment, Employment Change, Total, and by Sector**

| Sector             | United States   |                 | McKenzie County |                 | Percent Change 2001-2008 |
|--------------------|-----------------|-----------------|-----------------|-----------------|--------------------------|
|                    | 2001 Employment | 2008 Employment | 2001 Employment | 2008 Employment |                          |
| Total              | 165,510,200     | 181,755,100     | 4,074           | 4,794           | 18%                      |
| Farm               | 3,060,000       | 2,642,000       | 739             | 561             | -24%                     |
| ForFish etc        | 801,499         | 858,500         | <del>13</del>   | <del>20</del>   | 54%                      |
| Mining             | 806,400         | 1,155,900       | <del>195</del>  | 517             | 165%                     |
| Utilities          | 615,800         | 590,700         | <del>53</del>   | <del>65</del>   | 23%                      |
| Construction       | 9,817,700       | 11,151,000      | 180             | 323             | 79%                      |
| Manufacture        | 16,913,600      | 14,090,900      | 56              | 82              | 46%                      |
| Wholesale          | 6,231,400       | 6,570,500       | 114             | 152             | 33%                      |
| Retail             | 18,256,800      | 18,862,200      | 211             | <del>200</del>  | -5%                      |
| TranspWareh        | 5,478,000       | 6,019,500       | <del>168</del>  | 238             | 42%                      |
| Information        | 4,047,800       | 3,529,800       | <del>18</del>   | 29              | 61%                      |
| Finance Insur      | 7,805,600       | 9,023,400       | <del>120</del>  | 116             | -3%                      |
| Real Est&Rent      | 5,547,401       | 8,369,700       | <del>80</del>   | 108             | 35%                      |
| Prof,Scien,Tech    | 10,272,800      | 12,347,100      | 79              | 123             | 56%                      |
| Management         | 1,786,300       | 1,993,300       | 0               | 56              |                          |
| Admin & Waste      | 9,604,500       | 10,999,200      | <del>58</del>   | <del>150</del>  | 159%                     |
| Education          | 3,019,300       | 3,877,000       | <del>101</del>  | <del>102</del>  | 1%                       |
| Health & Social    | 15,247,400      | 18,593,400      | <del>296</del>  | <del>300</del>  | 1%                       |
| Arts, Entert, Recr | 3,165,100       | 3,860,200       | <del>20</del>   | <del>20</del>   | 0%                       |
| Accommod, Food     | 10,807,200      | 12,314,700      | <del>90</del>   | <del>100</del>  | 11%                      |
| Oth. private serv  | 9,074,600       | 10,329,100      | <del>140</del>  | 162             | 16%                      |
| Federal Civilian   | 2,729,000       | 2,817,000       | 82              | 56              | -32%                     |
| Military           | 2,071,000       | 2,079,000       | 46              | 42              | -9%                      |
| State Gvmt         | 5,031,000       | 5,259,000       | 16              | 8               | -50%                     |
| Local Gvmt         | 13,320,000      | 14,422,000      | 1,199           | 1,264           | 5%                       |

Notes: Struck-out numbers symbolize values that are not disclosed and were estimated. REIS data for the US was accessed on 9/22/2010 and for McKenzie County was accessed 1/11/2011.

Source: Bureau of Economic Analysis. Regional Economic Information System.



**Table A.9. United States and McKenzie County 2008 Employment, Employment Shares, Location Quotient, Total, and by Sector**

| Sector             | United States   |                        | McKenzie County |                        | 2008 Location Quotient |
|--------------------|-----------------|------------------------|-----------------|------------------------|------------------------|
|                    | 2008 Employment | 2008 Employment Shares | 2008 Employment | 2008 Employment Shares |                        |
| Total              | 181,755,100     | 100.0%                 | 4,794           | 100.0%                 |                        |
| Farm               | 2,642,000       | 1.5%                   | 561             | 11.7%                  | 8.1                    |
| ForFish etc        | 858,500         | 0.5%                   | <del>29</del>   | 0.4%                   | 0.9                    |
| Mining             | 1,155,900       | 0.6%                   | 517             | 10.8%                  | 17.0                   |
| Utilities          | 590,700         | 0.3%                   | <del>65</del>   | 1.4%                   | 4.2                    |
| Construction       | 11,151,000      | 6.1%                   | 323             | 6.7%                   | 1.1                    |
| Manufacture        | 14,090,900      | 7.8%                   | 82              | 1.7%                   | 0.2                    |
| Wholesale          | 6,570,500       | 3.6%                   | 152             | 3.2%                   | 0.9                    |
| Retail             | 18,862,200      | 10.4%                  | <del>200</del>  | 4.2%                   | 0.4                    |
| TranspWareh        | 6,019,500       | 3.3%                   | 238             | 5.0%                   | 1.5                    |
| Information        | 3,529,800       | 1.9%                   | 29              | 0.6%                   | 0.3                    |
| Finance Insur      | 9,023,400       | 5.0%                   | 116             | 2.4%                   | 0.5                    |
| Real Est&Rent      | 8,369,700       | 4.6%                   | 108             | 2.3%                   | 0.5                    |
| Prof,Scien,Tech    | 12,347,100      | 6.8%                   | 123             | 2.6%                   | 0.4                    |
| Management         | 1,993,300       | 1.1%                   | <del>56</del>   | 1.2%                   | 1.1                    |
| Admin & Waste      | 10,999,200      | 6.1%                   | <del>150</del>  | 3.1%                   | 0.5                    |
| Education          | 3,877,000       | 2.1%                   | <del>402</del>  | 2.1%                   | 1.0                    |
| Health & Social    | 18,593,400      | 10.2%                  | <del>300</del>  | 6.3%                   | 0.6                    |
| Arts, Entert, Recr | 3,860,200       | 2.1%                   | <del>29</del>   | 0.4%                   | 0.2                    |
| Accommod, Food     | 12,314,700      | 6.8%                   | <del>400</del>  | 2.1%                   | 0.3                    |
| Oth. private serv  | 10,329,100      | 5.7%                   | 162             | 3.4%                   | 0.6                    |
| Federal Civilian   | 2,817,000       | 1.5%                   | 56              | 1.2%                   | 0.8                    |
| Military           | 2,079,000       | 1.1%                   | 42              | 0.9%                   | 0.8                    |
| State Gvmt         | 5,259,000       | 2.9%                   | <del>8</del>    | 0.2%                   | 0.1                    |
| Local Gvmt         | 14,422,000      | 7.9%                   | 1,264           | 26.4%                  | 3.3                    |

Notes: Struck-out numbers symbolize values that are not disclosed and were estimated. REIS data for the US was accessed on 9/22/2010 and for McKenzie County was accessed 1/11/2011.

Source: Bureau of Economic Analysis. Regional Economic Information System.

**Table A.10. McKenzie County and Watford City Population, Total, and by Age Group**

| Age Group | McKenzie County |                 |                 |                      | Watford City    |                      |
|-----------|-----------------|-----------------|-----------------|----------------------|-----------------|----------------------|
|           | 1990 Population | 2000 Population | 2010 Population | Percent in Age Group | 2010 Population | Percent in Age Group |
| Total     | 6,341           | 5,714           | 6,360           | 100.0                | 1,744           | 100.0                |
| 0-4       | 584             | 358             | 513             | 8.1                  | 131             | 7.5                  |
| 5-9       | 594             | 448             | 457             | 7.2                  | 128             | 7.3                  |
| 10-14     | 556             | 591             | 446             | 7.0                  | 107             | 6.1                  |
| 15-19     | 446             | 496             | 426             | 6.7                  | 102             | 5.8                  |
| 20-24     | 234             | 174             | 370             | 5.8                  | 87              | 5.0                  |
| 25-29     | 408             | 185             | 408             | 6.4                  | 115             | 6.6                  |
| 30-34     | 539             | 261             | 353             | 5.6                  | 101             | 5.8                  |
| 35-39     | 547             | 390             | 339             | 5.3                  | 96              | 5.5                  |
| 40-44     | 419             | 493             | 355             | 5.6                  | 99              | 5.7                  |
| 45-49     | 343             | 471             | 447             | 7.0                  | 103             | 5.9                  |
| 50-54     | 273             | 381             | 526             | 8.3                  | 124             | 7.1                  |
| 55-59     | 267             | 328             | 474             | 7.5                  | 128             | 7.3                  |
| 60-64     | 248             | 244             | 344             | 5.4                  | 113             | 6.5                  |
| 65-69     | 235             | 228             | 292             | 4.6                  | 79              | 4.5                  |
| 70-74     | 297             | 190             | 210             | 3.3                  | 46              | 2.6                  |
| 75-79     | 177             | 166             | 162             | 2.5                  | 52              | 3.0                  |
| 80-84     | 94              | 182             | 116             | 1.8                  | 41              | 2.4                  |
| 85+       | 80              | 128             | 122             | 1.9                  | 92              | 5.3                  |

Source: U.S. Bureau of the Census.

**Table A.11. McKenzie County Population Change**

| Year | PopMcKenzie | 10 Year Change |
|------|-------------|----------------|
| 1970 | 6,127       |                |
| 1980 | 7,132       | 1005           |
| 1990 | 6,383       | -749           |
| 2000 | 5,714       | -669           |
| 2010 | 6,360       | 646            |

Source: U.S. Bureau of the Census.