Post Offices as a Measure of Nebraska's Settlement Frontier

By

Andrew G. Allen
B.S., University of Nebraska-Lincoln, 2006

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Chairperson James R. Shortridge

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Terry A. Slocum

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Stephen Egbert

Date Defended: April 6, 2011

The Thesis Committee for Andrew G. Allen

certifies that this is the approved version of the following thesis:

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Chairperson James R. Shortridge

Date approved: April 6, 2011

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Abstract

Andrew G. Allen
Department of Geography, 2011
University of Kansas

Knowing how, when, and where people moved into an area helps to understand past and present culture. Post office establishment dates can serve as a proxy of settlement if one considers a township settled once a post office is established within or adjacent to its boundaries. The resultant patterns, when mapped, reveal the relative importance of availability, productivity and accessibility of land to the settlement process. A plethora of land policies and laws were implemented to distribute land. With few exceptions, the widespread availability of land had little impact on the settlement patterns. Nebraska's image, which changed according to shifting climatic conditions, affected the speed of settlement. Transportation networks, particularly rivers and then railroads, were important considerations for settlers, too, as these affected access to market. A better understanding of the settlement patterns in Nebraska is achieved when considering these conditions and local history.

Acknowledgements

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My research was aided by numerous individuals at archives and libraries. The staff of the National Archive and Records Management office in Kansas City helped me in finding records and operating microfilm machines. Also the staffs at the Mid-Continent Library and the Nebraska State Historical Society (NSHS) helped with locating historical documents and maps. Linda Hein and Dale Bacon at the NSHS were particularly helpful with maps and pamphlets.

Table of Contents

List of Maps and Figures

Maps

Figures

Chapter One
Introduction

According to the Doctrine of First Effective Settlement, an area acquires much of its identity and character from its initial permanent settlers (Zelinsky 1973). Therefore, history is important to understanding a region's culture and can give important insights into how people viewed the land in which they lived. In particular, an examination of the changing frontier can aid in understanding initial judgments of soil quality, market access, and other important elements of place. The frontier has been viewed "as a place of extraordinary social and economic development" (Otterstrom 2002, 59). It has also been a much debated topic since Frederick Jackson Turner declared the frontier closed in 1893 (Turner 1920, 1). Although Turner's statement was presumably definitive, significant areas of the country still had a population density below the census's definition. Moreover, the extent of that low population region actually has expanded since his time. In the 1990s, for example, Kansas was said to have "a larger frontier today than it did in 1890" (Lang et al. 1995, 301). My interest in this subject is how the frontier has changed over time in Nebraska and how this change can be represented.

A proper understanding of the frontier is necessary to understand this thesis. The original definition used in America came from an 1870 federal census report entitled "Progress of the Nation" that was published in the *Statistical Atlas of the United States*. Francis Walker (1874), the report's editor, defined the frontier as any area having a population density between two and six people per square mile. A population density greater than six was categorized as settled, and a population density less than two was said to be wilderness. With these data in hand, it was easy to draw a frontier line, placed at the westernmost extent of contiguously settled land (Lang et al. 1995, 291-92). With each census report, this frontier line could be repositioned to see how settlement had progressed through time.

After the 1890 census, Robert Porter, the superintendent of the census, could no longer draw a definitive frontier line. Rather than delimit "isolated bodies of settlement" Porter decided that discussion of the frontier was no longer needed in the census report (Duncan 1993; Lang et al. 1995, 292). His statement inspired Frederick Jackson Turner's famous declaration of 1893, but both men were premature in two ways. First, by focusing only on settlement moving west from the Atlantic, they ignored a second frontier line moving east from the Pacific (Lang et al. 1995). Second, and more relevant to my study, the frontier line that had crossed the Great Plains by 1890 has, over the course of the last century, been retreating back eastward. The number of counties in the United States with population densities lower than six, for example, grew from 388 in 1980 to 397 in 1990 and to 400 in 2000.

Defining the Frontier

The most common method for mapping the changing frontier utilizes census population data. These numbers are easily accessible and would seem to be an excellent, direct measure. Otterstrom and Earle (2002), for example, employed this method and the census definitions of frontier to map the entire country every ten years from 1790 to 1990. This procedure does have problems however. One is temporal because data are collected only every ten years. County boundaries also change over time and complicate comparisons from period to period. Finally, questions exist about census employees missing outlying populations via ignorance or laziness (Bauer 2001).

Another method for mapping settlement utilizes land-patent and land-claim data (McIntosh 1974, 1996). This method assumes that, if land is patented, it must also be settled. The use of individual land parcels provides a finer spatial scale than census data. Data acquisition is also easy since detailed records are kept for land ownership and the date of the

patent or grant was recorded for every parcel. One problem, however, is that land-patent and land-claim data do not take absentee owners into account. Speculators often obtained land but did not live on their claims. This method also ignores squatters living illegally on unclaimed property. Finally, the large amount of data involved makes this method time consuming (Bauer 2001).

A third method for examining settlement utilizes the establishment dates of post offices. This idea was first suggested by Wilbur Zelinsky (1951). James Shortridge (1974, 1980) employed it to examine the settlement histories of Kansas and Missouri, while Georgia Adams (1956), John Alwin (1974), and John Bauer (2001) have similarly studied Oregon, Montana, and Illinois, respectively. This method also utilizes proxy data and assumes that a place is settled once it is served by a post office.

Post office data obviously cannot be used to map settlement before the establishment of the United States Post Office Department in 1792, but this is not an issue for Nebraska. Beyond the colonial issue, the methodology's main problem is determining how large an area a single post office serves. Such areas presumably would change based on geography and history. Improvements to transportation and roads would facilitate larger service areas. Also, Rural Free Delivery, introduced in 1896, greatly changed how rural inhabitants received their mail. Before this service, farmers either had to hire a private firm to deliver their mail or travel into the nearest town to collect letters themselves. I will address this issue in the methods section. On the positive side, post office data are easier to compile than land records because fewer post offices exist, and the method provides better temporal and spatial resolution than census data (Bauer 2001).

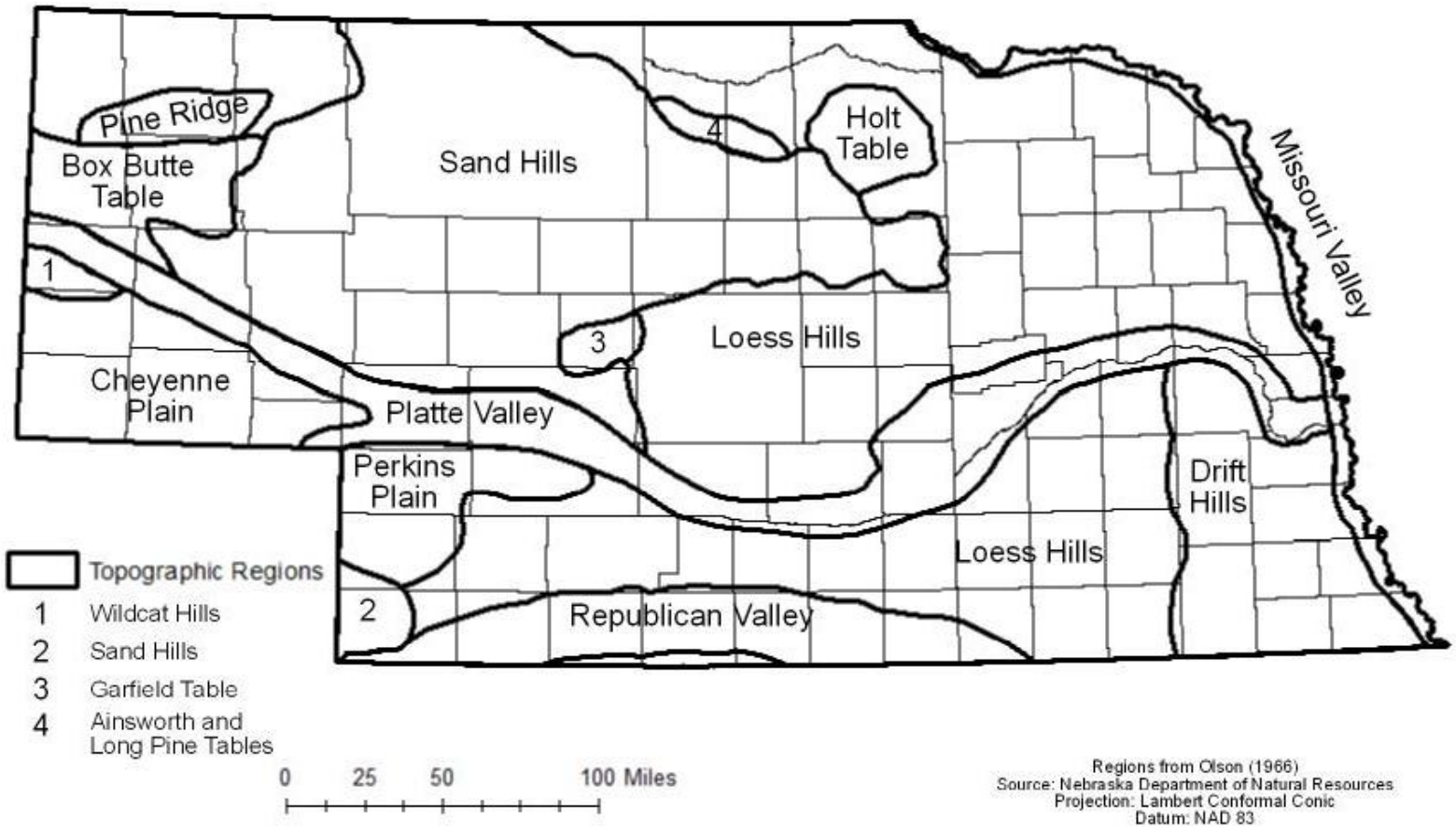
Study Area

Before discussing the nuances of post office data and the historical processes that operated on the nineteenth-century American frontier, it is important to get a sense of Nebraska as a physical entity. The state covers 77,421 square miles and exhibits a wide variety of landscape and climate. Most visitors note a general flatness to the landscape and try to pass through its boundaries as quickly as possible. Although it is true that mountains are absent, many upland regions are present that break the plains stereotype. These include the Sand Hills, Loess Hills, and Drift Hills (Map 1). Other distinctive regions include the Platte and Republican valleys as well as a limestone escarpment called Pine Ridge in northwestern Nebraska.

To generalize, the state can be described as a plain tilted significantly on its east-west axis. The highest spot, Panorama Point near Kimball, is 5,424 feet above sea level while the lowest, near Rulo, is only 840 feet above. This change in elevation causes most rivers in the state to flow west to east. A number of these valleys, especially the Platte and the Missouri have long been important transportation corridors. Rivers were also important sources of water to early settlers and remain so today. Important smaller rivers in the state include the Big Blue, the Elkhorn, the Little Blue, the Loup (and its tributaries), the Nemaha, the Niobrara, and the Republican.

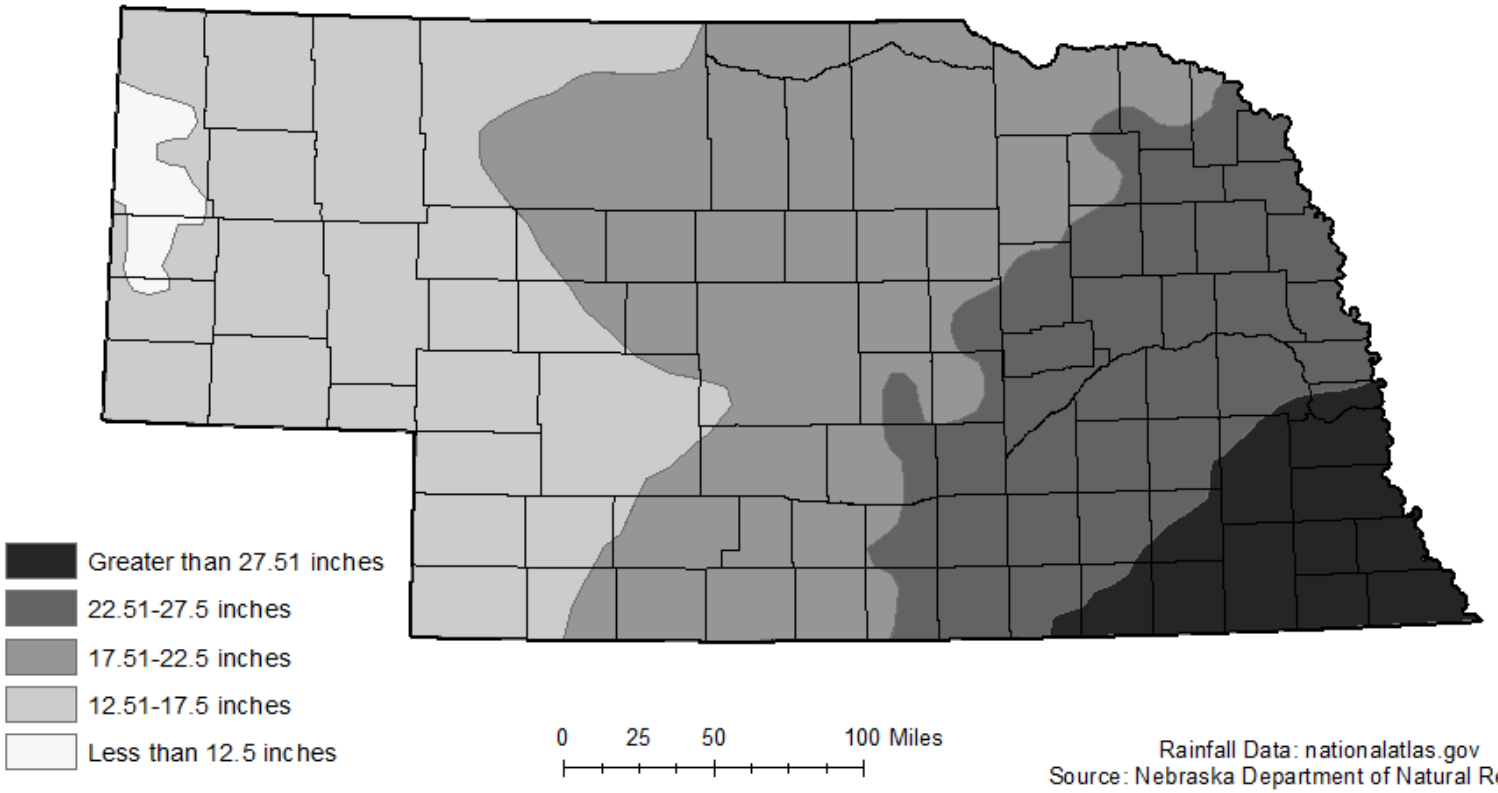
Climate also varies considerably across Nebraska's length and breadth of 450 by 200 miles. Generally, precipitation decreases to the north and west because of distance from the main source of moisture, the Gulf of Mexico. The state's highest annual precipitation total, in the southeast, is about 30 inches, while the lowest total near the western border is about 15 inches (Map 2). In general, rainfall decreases one inch for every thirty miles one travels west

Topographic Regions of Nebraska



Map 1

Nebraska Precipitation



Map 2

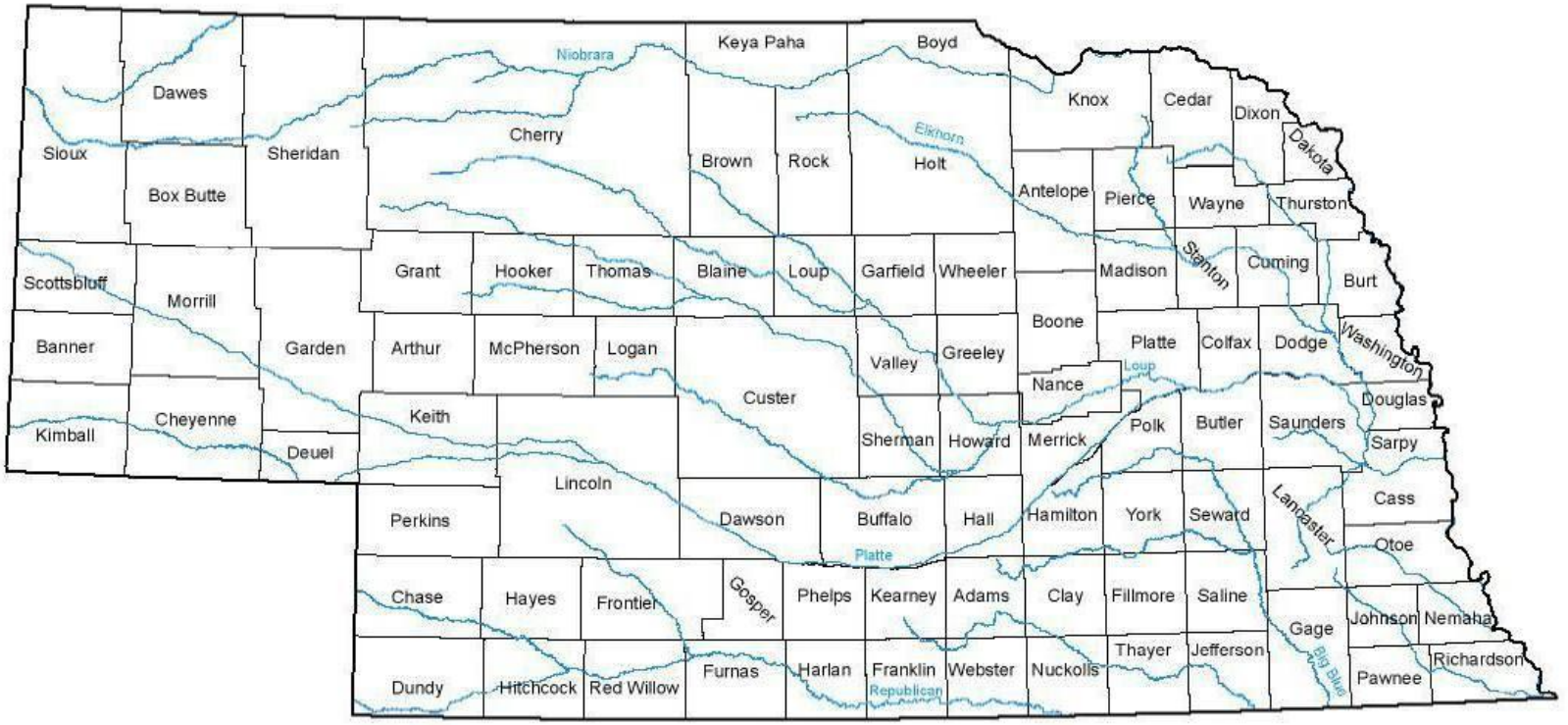
(Morton and Watkins, 1918). Much of the western part of the state can be classified as semiarid, and the entire state is prone to periodic droughts.

The availability of water was critically important to early settlers. When local rainfall proved inadequate, they turned to surface streams and to the natural lakes in the Sand Hills. Later, advances in technology (windmills, gas-powered motors) allowed farmers and ranchers to tap a large reserve of water in the Ogallala Aquifer (Sherow, 2004). These advancements have also caused great changes in the vegetation. Initially, Nebraska was dominated by grasslands with only three percent of the state covered by trees (Olson, 1966). Today, most of the land is devoted to agriculture. Corn, soybeans, milo (grain sorghum), wheat, and sugar beets are common crops. A large cattle industry also exists, particularly in the Sand Hills.

The Thesis in Outline

Following this introduction, chapter 2 will describe the methodology behind post office proxy data, the assumptions I made, and the data collection process. Chapter 3 details factors that affected settlement in Nebraska including perception, accessibility, and land availability. These preliminary pages set up chapter 4. Here I present original maps of the advancing post office frontier and compare the post-office patterns with standard historical interpretations of the process. Chapter 5 summarizes my findings. Throughout this study, I use current political names and boundaries for consistency (Map 3).

Nebraska Counties and Rivers



Map 3

Source: Nebraska Department of Natural Resources
Projection: Lambert Conformal Conic
Datum: NAD 83

Chapter 2
Methods

After settling on the use of post office data for my analysis of Nebraska settlement, I turned my attention to the methodology and sources I would need to complete the research. The most pressing issue was compiling a list of post offices that were established in the state. Once that was done, I devised a method to associate post offices with their respective service areas.

Compiling the List of Post Offices

As mentioned in the introduction, the United States Postal Service keeps exhaustive records about the appointment of postmasters. These records include the name of the post office, the date of appointment for every postmaster, name changes for any post office, and closing date (if applicable). Data are available through 1971, well after the end date of my study. From these data one can determine when each post office was established by looking at the first postmaster appointment to a particular location. The research process is simplified by having the information conveniently divided by individual county and listed chronologically.

Microfilm copies of post office records are available at the National Archives and Records Administration (NARA) office in Kansas City, Missouri. The close proximity of NARA to the University of Kansas allowed me to examine this microfilm in person, and over the course of four days, I made notes on each post office. This process was straightforward but difficult at times where handwriting was unclear or the original documents were in poor condition when they were scanned. Through practice and existing knowledge of Nebraska place-names, I was able to minimize these problems. My notes for every post office included name, establishment date, name changes, changes in location, and closing date.

My initial database was larger than the final one, since I recorded separate entries for every name I found, even when these entries represented name changes rather than new post

offices. More duplication arose because county boundaries changed frequently when new counties were established. Post offices that began in one county were listed again when a new county was established. Consider Cheyenne County. When that county was established in 1871, it covered the entire southern half of the Panhandle. Over time, six counties (Scottsbluff, Banner, Morrill, Deuel, Kimball, and Garden) were created from its original boundaries, causing many post offices to be listed twice and even three times in the process. For example, the post office of Oshkosh (established 1885) was recorded first under Cheyenne County, then under Deuel County (established 1889), and finally under Garden County (established 1909). Throughout my data collection, I made sure to note these changes so I could later eliminate duplicates. This screening process trimmed nearly two hundred entries from my database, leaving a final total of 2,390 post offices.

Once all duplicates were eliminated, the next task was to locate each post office. I used various sources for this work, following many of the methods developed by Bauer (2001) for Illinois. I started with the Geographic Names Information System (GNIS), a database from the United States Geological Survey (USGS) (www.geonames.usgs.gov/) that provides precise location data for a plethora of features (towns, rivers, post offices, schools, churches, lakes, townships) within the United States. I was able to locate about half of the post offices with GNIS. This database is weakest for historical locations, but sometimes I could find a church, cemetery, or school that shared a similar name with a historical post office. In these instances I tentatively would note the coordinates for the cognate feature assuming that the post office and the cognate would fall within the same general vicinity. I always attempted to find corroborating evidence however.

To supplement the GNIS, I turned to historical maps. I began with the Thomas R. Smith Map Collection at the University of Kansas and similar holdings at the Nebraska State Historical Society in Lincoln. These libraries were helpful, but I found even more historical maps on the Internet. These websites were ideal for my purpose since they allowed easy access at all hours. I searched some thirty different maps posted at four websites: the Library of Congress (http://lcweb2.loc.gov/ammem/gmdhtml/gmdhome.html), the University of Alabama's map library (www.alabamamaps.ua.edu /), the government of Hall County, Nebraska (http://www.hallcountyne.gov/content.lasso?page=7427), and the Omaha Public Library (http://digital.omahalibrary.org/earlynebraska/home.html). These maps covered Nebraska's history from its territorial days to the late 1920s. All were well scanned and included location references via the United States Public Land Survey (USPLS). Some maps even included individual section lines. I recorded this USPLS data for each post office and then used tools available at the Earth Point website (http://www.earthpoint.us/townships.aspx) to convert such descriptions into latitude and longitude coordinates. Through GNIS and the map collections together, I was able to locate 94 percent of the post offices in Nebraska.

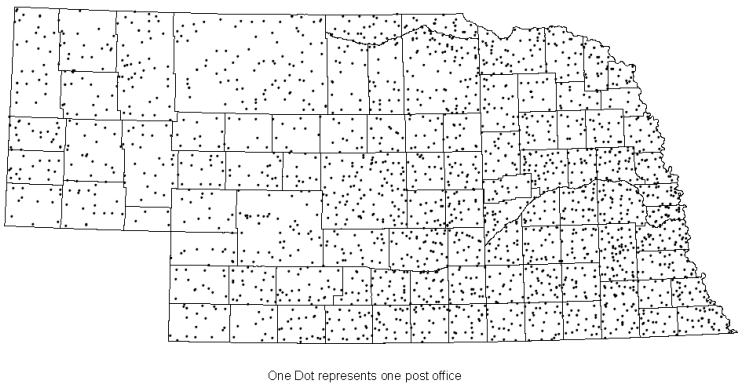
To find the remaining post offices I sought out published county histories, focusing on counties that had the most unknown locations. I started at the Spencer Research Library at the University of Kansas and continued at the extensive local history collection at the genealogical section of the Mid-Continent Public Library in Independence, Missouri. This process was tedious but did produce several new locations. In the end I located 95 percent of the post offices in the state, comparable to that found by Bauer in Illinois and in similar studies elsewhere.

Settlement Dates and Service Areas

With the post offices located, I loaded the data into a spreadsheet. The task now became how best to represent this information on a map so as to interpret patterns. Although maps using post office locations to represent data have been made for many states, no standard methodology exists.

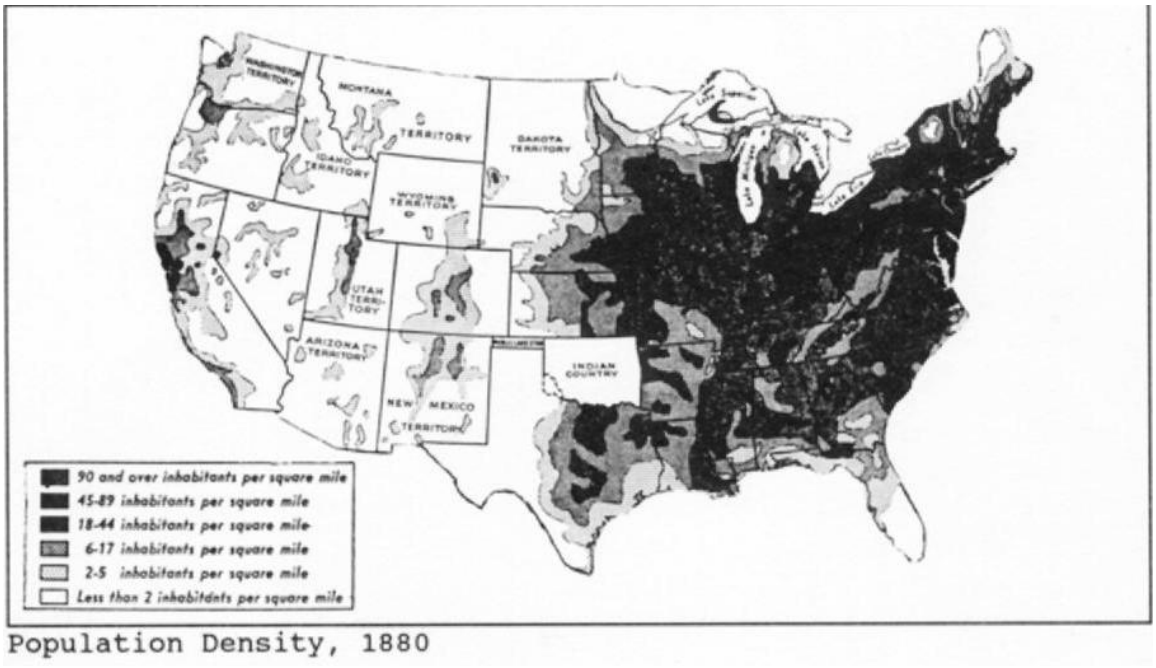
The simplest representation would have been a series of dot maps, where each dot represents a post office. John Alwin's (1974) study of Montana used this approach. The method creates maps pleasing to the eye, and could easily be broken down into a chronological series (Map 4). The process does not indicate how much area around each post office was settled however. For this reason, I avoided dot maps.

Isoline mapping is ideal for representing population density, which is the most common way to define a settled location (Map 5). This would not work for post offices, however. They do not constitute a continuous data set such as is required for isolines (Dent 1999). Moreover, I cannot convert post office locations into continuous data since the population served by each post office varies.



Map 4. Dot Map of Nebraska Post Offices.

I needed a method to determine the theoretical service area of each post office and then a means to represent these service areas on a map. To determine service area, I used an



Map 5. Population Density using Isolines. From Lord and Lord 1953, pg. 104.

assumption made by James Shortridge in his study of Kansas. He argued that a nineteenth-century post office served an area with a six-mile diameter, which is based on the territory tributary to hamlets in central place theory (Shortridge 1974, 84; Berry 1967). This six-mile area theoretically could be represented by a circle, hexagon, square, or other shape with the post office as a center point. Mapping practice makes some shapes better than others. Circles do not fit together perfectly, for example, and would not represent small slivers that lie between post offices. They also overlap, causing a cluttered appearance. A square or hexagonal mapping unit would fit together better, but would still cause overlap issues (Bauer 2001). Tessellation offers a possible solution with its network of triangles. This method would create a seamless pattern and eliminate overlap caused by an uneven distribution of post offices, but it would also require computer coding in ArcGIS.

The method I selected was developed by Shortridge (1974) and also used by Bauer (2001). This method uses the township (a six-by-six mile square) of the United States Public Land Survey (USPLS) as an enumeration unit, which matches well with the assumption that a post office has a service area of six miles in diameter. It also provides a seamless network that covers the entire state and is easy to execute.

To implement Shortridge's method for a given township, the date for the oldest established post office is applied to the entire township and all other dates are disregarded. This process is best understood by example. In Figure 1, township "*e*" would be assigned an establishment date of 1867 because it is the only post office in the township. But not all post offices are located in the center of townships, so their six-mile service areas may extend into neighboring townships. Therefore, a one-mile buffer applied to township boundaries is necessary. If a post office is located within that one-mile buffer, the establishment date for that office will be applied to both the township it is located in and the adjacent township. Using Figure 1 again, one can see that township "*d*" has a post office established in 1868 within its boundaries, but it also has a post office established in 1867 within the one-mile buffer in an adjacent township "*a*". Therefore the post office located in township "*a*" would provide service to both townships "*a*" and "*d*", and both would be assigned an establishment date of 1867. This system overestimates settled area, but I assume it is better to include too much area than too little. With this system, a scenario is possible where four separate townships could share the same settlement date because of one post office (Bauer 2001).

To accomplish the assignment of dates to each township, I utilized Google Earth (http://earth.google.com/) and other tools. From the Earth Point website (http://www.earthpoint.us/townships.aspx), I was able to find a Keyhole Markup Language

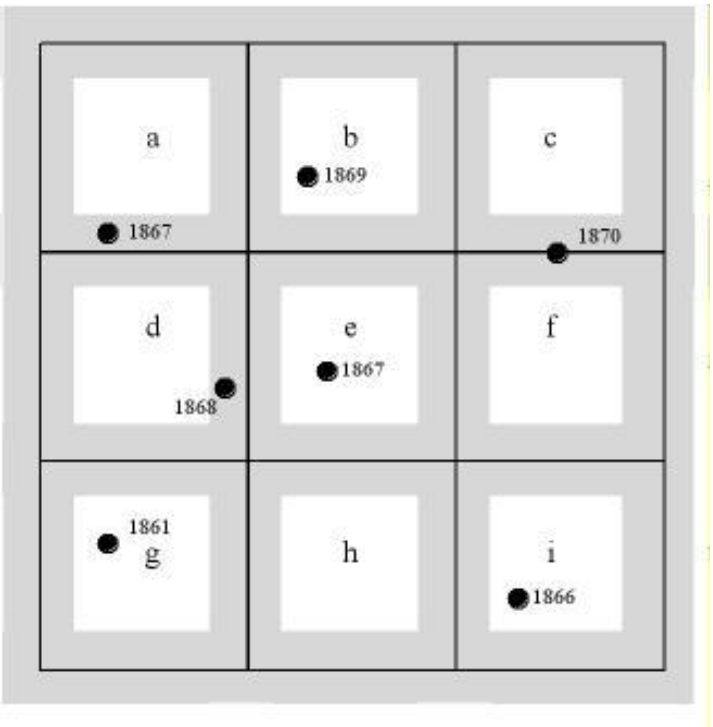


Figure 1. The Determination of Settlement Dates Using Post-Office Establishment. This diagram shows nine townships with a one-mile buffer applied in gray. Each dot represents a post office with the corresponding establishment date.

(KML) file that displays the USPLS on Google Earth. I then used a plotting program from EarthPlot (http://www.earthplotsoftware.com/) to create a dot map of every post office in Nebraska. With these programs loaded onto Google Earth, I examined each individual township in Nebraska and assigned an establishment date to each. When determining whether post offices fell within the one-mile buffer of a township line, I used either the measurement tool in Google Earth or an individual section as a proxy. This part of the process was tedious, and I chose to employ these particular tools rather than sitting in a computer lab using ArcGIS because of time considerations. The online software is easily accessible and with it I could complete the work at my leisure from my office or home.

After plotting the data, I was able to create a series of maps that depict the progression of settlement in the state as measured by post office establishments. These form the basis for the

historical discussions in the following chapters. GIS base data for these maps comes from the Nebraska Spatial GIS Databases (http://www.dnr.state.ne.us/databank/spat.html) at the Nebraska Department of Natural Resources, which included state and county boundaries, USPLS boundaries, railroads, and hydrography. I reprojected all layers into the Albers equal-area projection, so all areas are shown correctly. After importing the establishment-date data into the USPLS layer, I classified each township as either "settled" or "not settled" depending on the time range of the particular map.

Chapter 3
Expectations

To better understand the settlement history of Nebraska, it is important to view what historians have said about it and to compare their views with the maps produced using post office proxy data. In a way, the use of proxy data and historical records can help one determine why certain areas were settled before or after others. Usually settlers wanted the best land, but the one's idea of "best" was often affected by many factors including perception, availability, and accessibility. Often these three factors were intertwined in determining what areas were settled when.

Productivity

Since the physical characteristics of Nebraska were covered in a previous chapter, the topic here focuses on perceptions of the productivity of the land through time. While the current observer has the advantage of years of research to view this landscape, early settlers had little information and relied heavily on advertisements and explorers' descriptions, which varied from the land being a desert to it being a garden. Changes in the physical environment must also be considered and how rain cycles might have affected settlement patterns.

When Nebraska was first purchased as part of the Louisiana Purchase, little was known about its physical characteristics. Then came a number of explorers, most of whom wrote unflattering descriptions. In 1806, for example, Zebulon Pike led an expedition across the Great Plains and famously described the area as a "desert," noting a "barren soil, parched and dried for eight months in the year" that "presents neither moisture nor nutrition sufficient to nourish the timber" (quoted in Dick 1975, 5).

Pike traveled through Kansas, but fourteen years later Stephen Long echoed Pike's sentiments concerning the land along the Platte River. Long called this "a desolate region,

consisting entirely of granitite sands producing a scanty growth of grasses" (quoted in Dick 1975, 6). From these observations, he concluded that the land was "almost wholly unfit for cultivation, and of course, uninhabitable by a people depending on agriculture for their subsistence" (quoted in Fite 1966, 3). Although such descriptions certainly damaged the region's agricultural reputation, subsequent cartographers may have done more permanent harm, by repeatedly labeling the area between the Platte and Arkansas Rivers as the "Great Desert." According to historian Everett Dick, "this caption was to be found on the maps of the United States as late as 1870" (1975, 7).

Many explorers and scientists would give similar descriptions over the next forty years. In 1842, John Fremont described Nebraska as "a vast desert, impregnated with salts and alkalies [sic], and too seldom visited by rain to render farming profitable" (quoted in Dick 1975, 7). Historian Gilbert Fite (1966) has noted that most of these early expeditions did little actual analysis of the land's suitability for agriculture and were more "concerned with the flora and fauna of the region" (Fite 1966, 6). Still, the lack of trees was viewed badly, as "land incapable of sustaining forests would prove incapable of producing corn" (Emmons 1971, 130). Similarly, short grasses farther west were viewed as having little productive value.

The opinions and descriptions of early travelers pervaded eastern thought about the Great Plains for many years and affected public policy. For example, they underlie the decision by federal officials to declare the "country west of the Missouri river [sic] and Missouri state, and north of Texas" to be a large reserve for Native Americans (Sheldon 1936, 8). The Indian Intercourse Act of 1834 formally established this territory, and (temporarily, at least) "forbade any white person, without license from the Indian Commissioner, to set foot in the Indian Country" (Paxson 1924, 278).

Negative appraisals of the agricultural quality of Nebraska had credence so long as the Euro-American settlement frontier remained largely east of the Mississippi River. When people advanced farther west, however, their local experience altered public perception and some positive views of the Plains began to appear. In particular, residents of Iowa and Missouri saw the quality of the land across the Missouri River and called for its opening. They were soon joined by more influential people.

Thomas Hart Benton, a senator from Missouri, was among the earliest power brokers to challenge the notion of the Great Plains as a desert. By 1849, he was proclaiming that the area, with the help of the railroad, could easily burst to life. Benton, Stephen Douglas, and other politicians were actually more interested in a transcontinental railroad to connect the East with the new states of California and Oregon than they were in the Central Plains. Still, in the minds of these boosters, it was in the nation's best interest to fill the interior with settlers. To do so, people's opinions about the Great Plains needed to be changed (Emmons 1971). These ideas would soon lead to the creation of Nebraska Territory, spearheaded by Stephen Douglas.

The change in public perception happened in stages. While the first settlers soon realized the productivity of the lands near the Missouri River, few were willing to claim that the whole territory was a garden. In 1855, Gouverneur Warren, a lieutenant with the U.S. Corps of Topographical Engineers, doubted that subsistence farming could be practiced west of the 97th meridian (Dick 1975, 11). Even the decision to move the capital to Lincoln in 1867 was thought to be foolhardy (Dick 1975). With the success of farmers in the eastern part of Nebraska, however, people started to believe that the "Great American Desert" was at least smaller and farther west than previously envisioned. Over time boosters would keep pushing this desert's boundaries.

During Nebraska's territorial years and early statehood, a great number of people and organizations worked to change the perception of the area from a desert to a garden or at least to promote the suitability of the state for agriculture. These boosters, town promoters, railroad men, and state officials alike, portrayed the region with varying levels of truthfulness and many, of course, had selfish motives. Throughout the last half of the 1800s they would reshape the image of Nebraska (Fite 1966, 25).

In 1864, the territorial government itself became involved in boosterism by establishing the Nebraska Immigration Association. Although influential, historians judge this effort as less persuasive in seeking settlers than that of the railroads (Fite 1966, 27). David Emmons (1971), for example, claims railroads were the most important booster for the entire Great Plains.

Railroad officials, of course, had a vested interest in seeing the land settled. These efforts were led by the Union Pacific and Burlington lines, which had secured large land grants and needed to sell land to generate capital. Even railroad companies without land to sell wanted new inhabitants, however, for settlers would use the tracks for freight and bring more business to the line. C. R. Lowell of the Burlington Railroad said "he who buildeth a Railroad west of the Mississippi must also find a population to build up business" (quoted in Overton 1941, 159). This need led to impressive advertising campaigns (Fig. 2). Thousands of promotional posters and pamphlets were distributed in Eastern states and in Europe. The railroad companies also advertised extensively in newspapers and offered journalists free trips to view the available lands. Such trips usually resulted in favorable reviews in newspapers and magazines. The ads were similarly optimistic, typically portraying Nebraska as a potential garden that would reward any settler who worked hard (Emmons 1971).

Figure 2. A Burlington Pamphlet Used to Attract German Settlers. Courtesy of Nebraska State Historical Society, RG 1600-7

State agencies were slower to appropriate money for advertising. Starting in 1870, however, the new Nebraska Board of Immigration produced 110,000 pamphlets over the next two years. Officials also displayed the agricultural productivity of the land at large fairs, including the World's Columbian Exposition in Chicago in 1893. These state advertising campaigns never reached the level of railroad efforts, however, in part because of cooperation between the entities (Emmons 1971).

Other organizations also promoted Nebraska. Local newspapers were quick to tout their county's lands, and those descriptions were often some of the more blatant examples of exaggeration. Newspapers also encouraged local citizens to involve themselves in immigration. The *Nebraska Farmer* suggested that every subscriber should send a second copy of a local paper to a friend. "Promotion was considered a civic duty and all who deserved well of the commonwealth were expected to participate in it" (Emmons 1971, 67). Individuals recruited settlers in other ways. "Thousands of foreign immigrants were attracted to this last prairie frontier by letters from relatives and friends who had already preceded them to America" (Fite 1966, 27).

All this positive publicity filled much of the eastern part of the state with settlers by the mid-1870s, but the western part of the state retained the desert imagery. In 1878, for example, John Wesley Powell of the United States Geological Survey "fixed the western limit of humid farming at land receiving twenty inches of rainfall per annum" (quoted in Dick 1971, 4). This line corresponds to an area between the 98th and 100th meridians, about the longitude of Fort Kearny. Obviously railroads and other boosters did not like this statement, since they wanted the Great Plains settled all the way to the Rocky Mountains.

One rebuttal to Powell's claim came with a theory developed in the 1870s that climatic conditions would change as civilization advances. The basic idea, epitomized by the booster's phrase "rain follows the plow," was a powerful recruiting device (Wishart 1990, 271). It also continued an older American idea that the environment could be conquered and that the settler himself would cause the change. Potential immigrants, it seemed, would not have to worry about drought, because their actions would alter the climate and bring the necessary rainfall.

The rain-making theory was formulated largely by Samuel Aughey and Charles Wilber, professors at the University of Nebraska. Initially, the men had simply observed "that as civilization extends westward the fall of rain increases from year to year" (Emmons 1971, 135). Then they developed a theory to fit, that the soil, once it had been broken up, would hold more water and would allow more water to evaporate (Wishart 1990). They also reasoned that the new surface would be cooler and drop local temperatures. If this were done on a large enough scale, it would change the climate. Professor Aughey (1880, 44-45) summarized his theory as follows:

> It is the great increase in the absorptive power of the soil, wrought by cultivation, that has caused, and continues to cause an increasing rainfall in the State. Anyone who examines a piece of raw prairie closely, must observe how compact it is . . . . For vast ages the prairies have been pelted by the elements and trodden by millions of buffalo and other wild animals, until the naturally rich soil became as compact as a floor. When rain falls on a primitive soil of this character, the greater part runs off into canyons, creeks and rivers . . . . Observe now the change which cultivation makes. After the soil is broken, the rain as it falls is absorbed by the soil like a huge sponge. The soil gives this absorbed moisture slowly back to the atmosphere as evaporation. Thus year by year as cultivation

> of the soil is extended, more of the rain that falls is absorbed and retained to be given off by evaporation, or to produce springs. This, of course, must give increasing moisture and rainfall.

Hindsight tells us that the rainfall increases in the early 1870s on which Aughey based his theory were just part of the climatic cycle that exists in Nebraska. However, facts were usually of little importance to the boosters, and rain-making theory was used by "school textbooks, state atlases, railroad promotional pamphlets, local horticultural societies, and the Federal Division of Forestry (Wishart 1990, 271). In 1880, for example, promotional material from the Burlington railroad promised that the "causes that produced long seasons of drought in the early years, no longer exist" (quoted in Emmons 1971, 147). The theory would persist until the 1890s when Nebraska experienced a severe drought.

While boosters tried to minimize the cyclical nature of Nebraska's climate, periods of drought did have an effect on settlement. During the dry years in the late 1850s, early 1870s and early 1890s, the number of homestead entries dropped and so did the number of new post offices established. A short lag exists between the beginning of the drought and the drop of each of these indicators, however. Moreover, abandoned lands were often cultivated again once the rains returned. Many writers and scholars have argued that the climatic variation caused a boom-and-bust cycle of settlement, but it was more a matter of degree than absolutes. The amount of settled area and the population of the state both actually increased through every dry period. Even the big 1890s drought, which largely discredited the "rain-follows-the-plow" theory and changed notions about irrigation potential in the western part of Nebraska, did not stop settlement. The only time Nebraska population actually declined occurred with the drought and economic depression of the 1930s.

Droughts are hard to isolate as factors affecting settlement because, as Dick (1975) pointed out, they were often accompanied by other economic and natural phenomena. The early 1870s, for example, was a time of economic recession and large grasshopper swarms. Therefore, blaming climatic conditions alone is not feasible. Also, changes in perception do little to explain regional variations in settlement choices. Other factors must be added to the mix.

Availability

Availability of sites for new farms and cities relates most prominently to the various land laws and regulations that were passed/implemented over time. These statutes determined which lands were available, their price, and the size of parcel. Some laws even allowed for the allotment of public lands to help finance large-scale projects, such as railroads. With the exception of squatters, these laws were recognized by most settlers.

As noted earlier, government policymakers in the 1830s and 1840s judged Nebraska to be unsuitable for Euro-American settlement, and therefore, set the land aside as part of Indian Country. Under this policy, the Otoe-Missouria, Omaha, Ponca, Pawnee, Dakota, Cheyenne, and Arapahoe peoples held title to the land. The continued advance of American settlement changed these plans, of course, and with the organization of Nebraska Territory in 1854, settlers were allowed access to the area. By 1857, all Indian land east of the forks of the Platte and been purchased by the United States government. All remaining acreage had been ceded by 1876 (Wishart 1994).

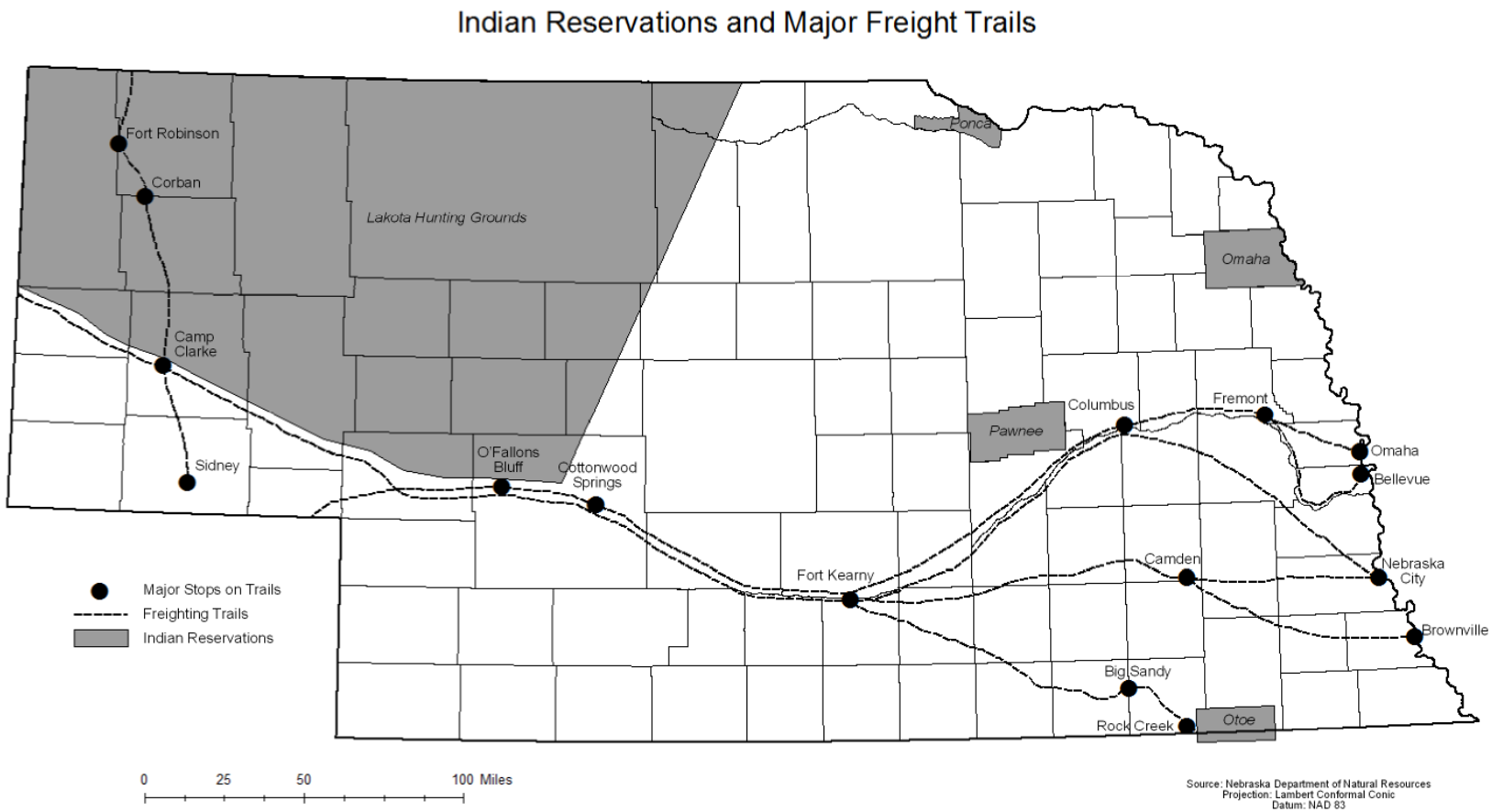
In exchange for ceded lands most tribes were given reservations where the government hoped the people would take up farming and assimilate into American culture. In 1854, the Otoe-Missouria received a 162,000 acre reservation in present-day Gage County along the

Kansas border, while the Omaha received a 302,800 acre reservation in present-day Thurston County (Map 6). The Pawnee received a 288,000 acre reservation (present-day Nance County) in 1857 and the Ponca received 88,000 acres between the Niobrara River and Ponca Creek near the town of Niobrara. Native Americans were generally slow to adapt Euro-American practices even as new settlers continued to move in around them. The Omaha and Otoe-Missouria reservations, for example, were surrounded by new settlement by 1870.

Settlers almost immediately saw the reservations as "prime pioneering country that was being underutilized by the Indians" (Wishart 1994, 188). Soon governors Butler and Furnas were calling for removal, and federal officials in the Indian Office obliged. They presented the tribes with one of two options: take out allotments or move to Indian Territory (present-day Oklahoma). The Pawnee, Ponca, and Otoe-Missouria chose the latter option and left between 1875 and 1881. The Omaha, having largely followed the program set out by government authorities to adopt farming, remained in their original reservation. Still they faced pressure to sell. By 1882, the Omaha took allotments of land for each family and the remainder was sold in 1884 (Wishart 1994).

Shortridge's (1974) examination of Kansas found breaks in settlement where reservations occurred. A similar pattern is expected in Nebraska. As noted earlier, the Omaha and Otoe-Missouria were largely surrounded by 1870. Therefore gaps in settlement should occur on the maps. Ponca and Pawnee lands likely will have less impact because of the remoteness of their reservations prior to their removal to Oklahoma.

Once Native American land was added to the public domain, a number of federal laws affected how this land would be allotted to settlers. The Preemption Act, passed in 1841, and public auctions were the principal means available in 1854. Under the former act, a settler could


Indian Reservations and Major Freight Trails
Fort Robinson
Corban
Lakota Hunting Grounds
Ponca
Omaha
Camp Clarke
Sidney
O'Fallons Bluff
Cottonwood Springs
Pawnee
Columbus
Fremont
Omaha
Bellevue
Fort Kearny
Camden
Nebraska City
Brownville
Big Sandy
Rock Creek
Otoe
Major Stops on Trails
Freighting Trails
Indian Reservations
0 25 50 100 Miles
Source: Nebraska Department of Natural Resources
Projection: Lambert Conformal Conic
Datum: NAD 83

Map 6

acquire “one hundred sixty acres by improving it, making his home upon it and paying $1.25 per acre to the United States” (Sheldon 1936, 25). The Preemption Act was the first of many laws that attempted to convey the public domain directly to actual settlers and to reduce land speculation. Throughout its fifty-year history, 4,996,480 acres of land in Nebraska were distributed through the Preemption Act (Sheldon 1936).

Federal government officials had long seen the vast public domain as a source of revenue via the sale of lands. This view gradually was countered, however, by sentiment for the free allotment of public lands (Hibbard 1965). This latter idea culminated in the Homestead Act of 1862, which provided prospective settlers with 160 acres of land for a small filing fee provided they lived on the land for five years and made improvements to the land. However, a settler could commute or “prove up” his homestead by paying $1.25 per acre for his land after two and a half years. With these requirements in place, federal authorities hoped to maximize settlement while at the same time limit speculation. In the end, 19,224,320 acres of Nebraska land were patented through the Homestead Act and another 2,634,240 acres were commuted (Sheldon 1936).

The Homestead Act was widely praised. Promoter Frederick Goddard, for example, claimed that it was “one of the most beneficent enactments of any age” (quoted in Emmons 1971, 22). Governor Alvin Saunders wrote that its benefits could “never be estimated in dollars and cents” (Olson 1966, 158). Still, the act’s initial impact was dampened by the Civil War (Webb 1981). By examining the graph of homestead entries, one notices two peaks: in the early 1870s and later in the 1880s (Figure 3). It would be expected that these two periods should exhibit extensive settlement in Nebraska.

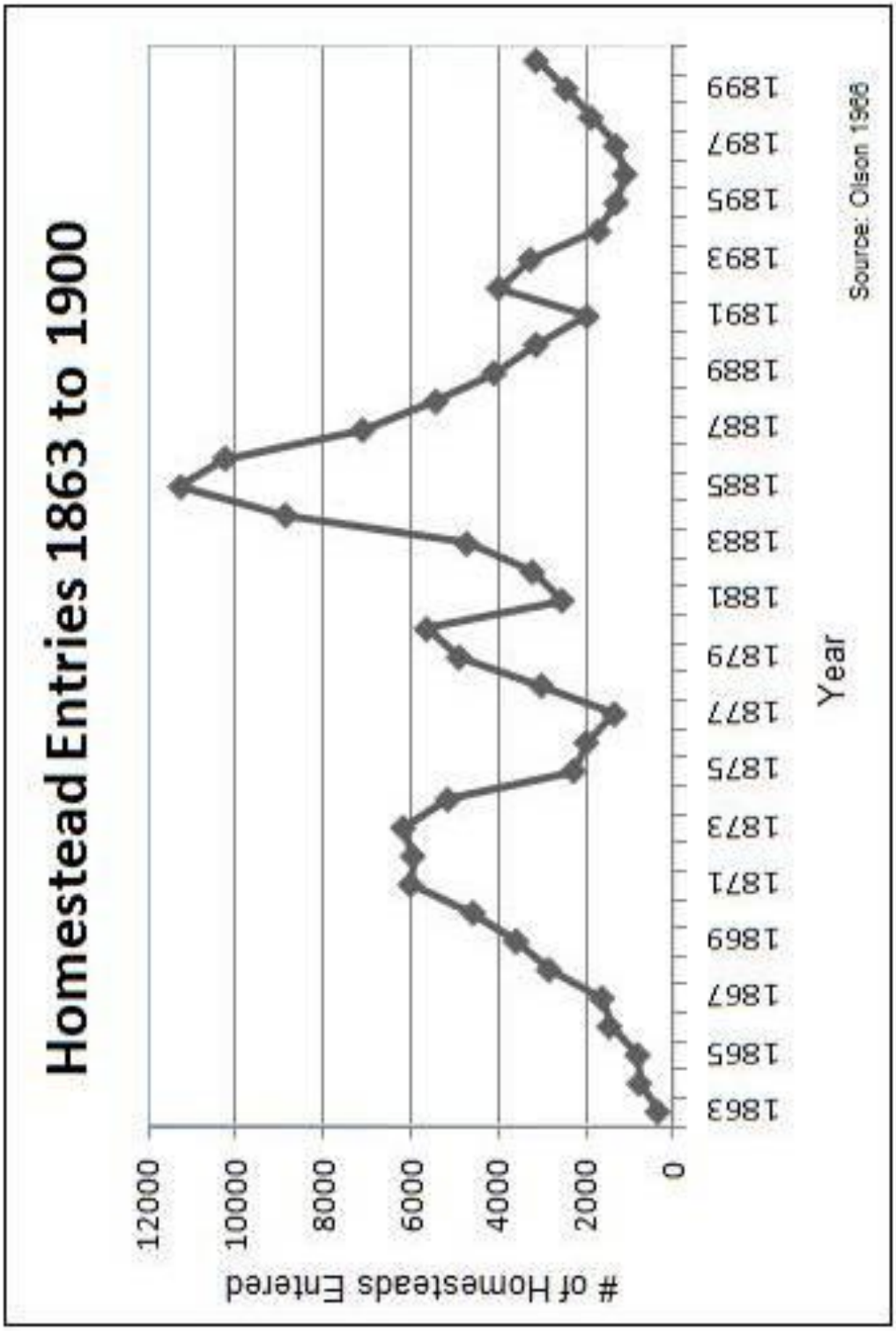
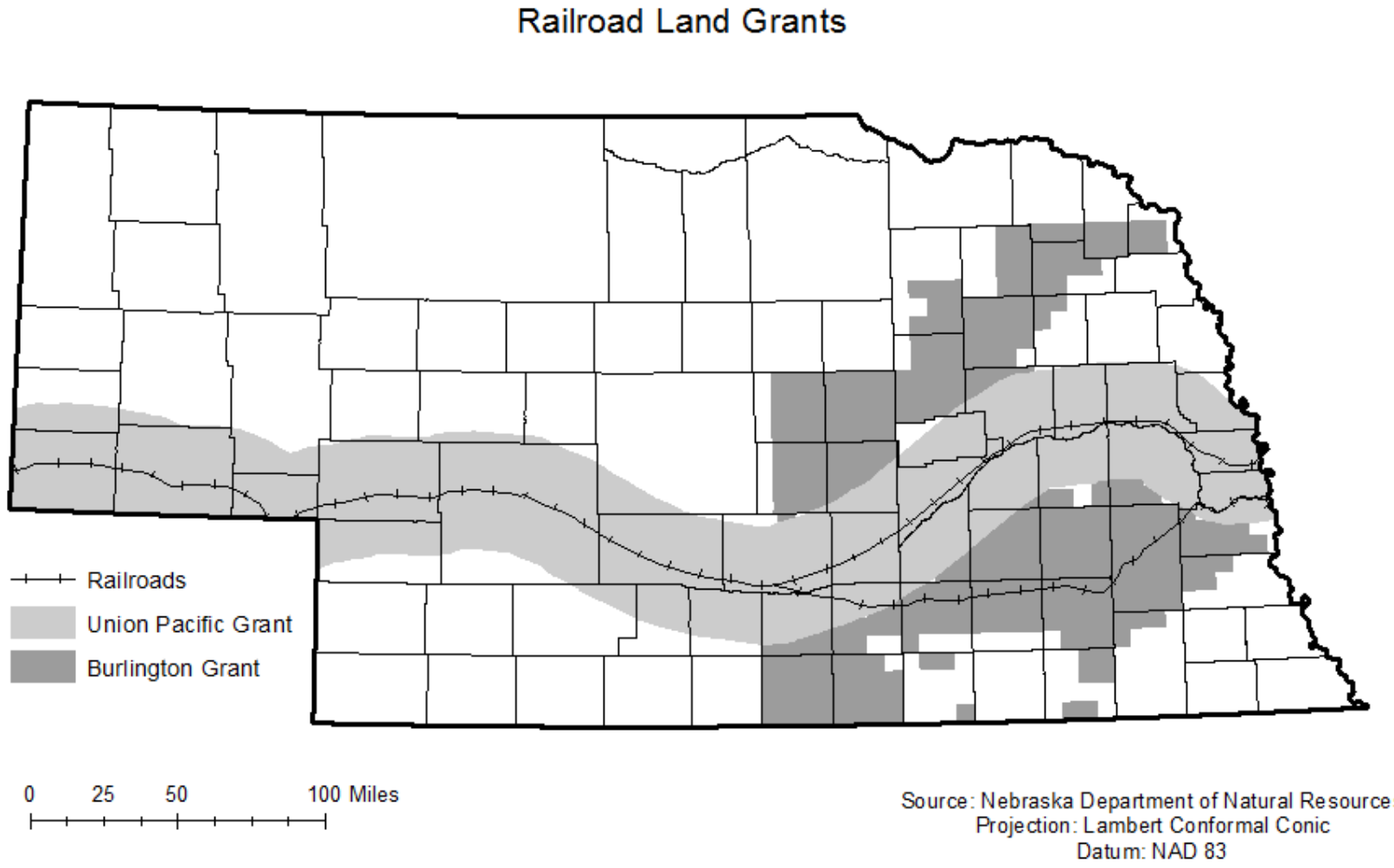

Homestead Entries 1863 to 1900
# of Homesteads Entered
12000
10000
8000
6000
4000
2000
0
1863
1865
1867
1869
1871
1873
1875
1877
1879
1881
1883
1885
1887
1889
1891
1893
1895
1897
1899
Year
Source: Olson 1966

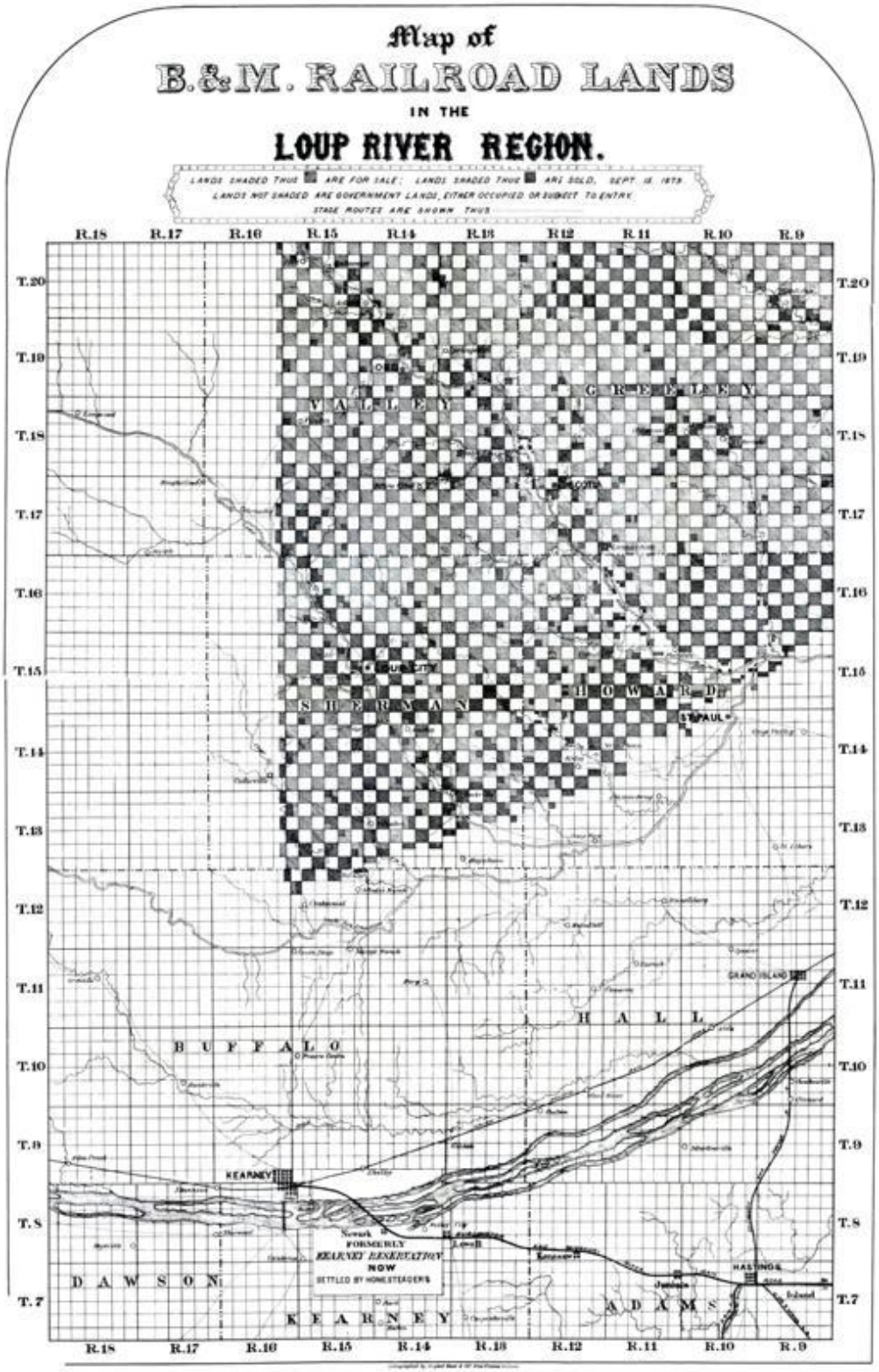
Figure 3

While the Homestead Act provided "free" land to the settler, its efficacy as a settling agent was limited by the lands available in the public domain at the time. Fite (1966), for example, has noted that much of the best land was given away by the government to corporations or for educational purposes. This certainly was true in Nebraska. Between 1863 and 1872, while settlers were acquiring 1,471,761 acres through the Homestead and Preemption Acts, over six times that total or 9,435,796 acres were given as railroad grants, agricultural college scrip, and other grants (Sheldon 1936). Settlers who desired to be near transportation lines were thereby forced to buy land if they could afford it. In this way the goals of the Homestead Act were greatly tarnished.

The awarding of railroad grants in Nebraska started in 1862. A federal act that year gave the Union Pacific Company 4,846,108 acres, which was to be used to supplement construction of the first transcontinental railroad. This grant included a large amount of prime agricultural land along the Platte River Valley (Map 7). In addition, other land grants were awarded to the Burlington and Missouri River Railroad (2,374,091 acres), the Saint Joseph and Grand Island (380,787 acres), the Sioux City and Pacific (38,228 acres), and the Central Branch of the Union Pacific (2,560 acres). These grants usually consisted of alternating sections of land that lay within a ten-to-twenty mile distance from either side of the rail line (Map 8). Such giant land grants were removed from the public domain and their sale was administered by the railroads themselves. Moreover, even though the even-numbered sections within the land grants remained part of the public domain, laws for their disposal changed. A homestead entry of only eighty acres was allowed on land inside a railroad grant and the price for land under the Preemption Act increased to $2.50 per acre. This was done to encourage the sale of railroad lands.


Railroad Land Grants
Railroads
Union Pacific Grant
Burlington Grant
0
25
50
100 Miles
Source: Nebraska Department of Natural Resources
Projection: Lambert Conformal Conic
Datum: NAD 83

Map 7



Map 8. Gast & Co.'s B.&M. Railroad Lands in the Loup River Region, 1879. Courtesy of Nebraska State Historical Society, M782 18 B92.

Railroads could affect the speed of settlement in several ways. Their officials could choose which parcels to patent within the land grant and when to open them for sale, and they took different approaches. Shortridge (1974) showed a contrast between the policies of the Kansas Pacific and the Santa Fe lines in Kansas. Kansas Pacific officials did not want to patent land quickly, because that acreage would then be taxed (Shortridge 1974). The railroad company wanted to ensure that people would buy the land—preferably for a higher price—soon after it was patented and so waited for the progression of settlement to advance. Even though the government still owned half of the sections in these swaths, they could not be homesteaded until the railroad made its claim (Grant 1996). This inability to obtain land around the Kansas Pacific Railroad slowed settlement between a fifty-mile-wide swath along the railroad for many years. In contrast, Santa Fe Railroad officials patented their land quickly and sold it for a lower price (Shortridge 1974). In this way they hoped to build up traffic along the route faster and make their money that way.

In Nebraska, historians note that both the Union Pacific and the Burlington and Missouri lines—the two main land-grant railroads—generally sold off land assets quickly to increase settlement and traffic. Olson (1966) has noted that both railroads were "anxious to dispose of [the land] as quickly as possible and at the highest possible price." Their leaders thought that greater revenue could be made by the traffic of settled land than from the sale of land itself. The Burlington's C. R. Lowell, for example, said: "Keep it constantly before the farmers that we are a railroad company & not a land company—that settlers are more important to us than a high price for our land" (quote in Overton 1941, 150). This policy resulted in an average price of $6.05 per acre for the Burlington line and $4.27 per acre for the Union Pacific between 1871 and 1883.

One major dispute existed over land grants within Nebraska. Since a large part of the Burlington and Missouri Railroad's grant in the eastern part of the state was already possessed by settlers and some lands overlapped with the preexisting Union Pacific grant, the company was given supplemental land in northeast Nebraska. Some of this acreage was over 150 miles away from the railroad line. County representatives in this area disputed the legality of the allocation practice and noted that local settlers did not profit from railroad accessibility. They also complained that the railroad held onto lands. Finally in the 1880s, these legal issues were resolved and the lands sold (Sheldon 1936).

After the awarding of railroad grants, two other laws affected land availability. The Timber Culture Act of 1873 allowed settlers to claim an additional 160 acres of land beyond their homestead with the requirement that ten to forty acres of this new parcel—depending on the regulations of the time—were planted with trees. C. Barron McIntosh (1974) has argued that the Timber Culture Act did little to encourage Nebraska settlement, and was instead exploited by speculators. One reason for this distortion of intent was the law's lack of a residency requirement. Another interesting aspect of this law is its background. While the increased tree acreage mandated would obviously provide timber and shade, the principal reason for this requirement was the old rain-maker claim that an increase in tree cultivation would alter the climate (Sheldon 1936). Despite lofty goals of increasing forest cover in the Great Plains, the Timber Culture Act actually did little to increase either settlement or tree growth.

Finally, the Kinkaid Act of 1904 increased the acreage allowed under a homestead claim. Designed specifically for western Nebraska, this act allowed a settler to claim up to 640 acres (Reynolds 1949). At the time, western Nebraska—and the Sand Hills in particular—were still sparsely settled and government officials came to feel that the Homestead Act needed to be

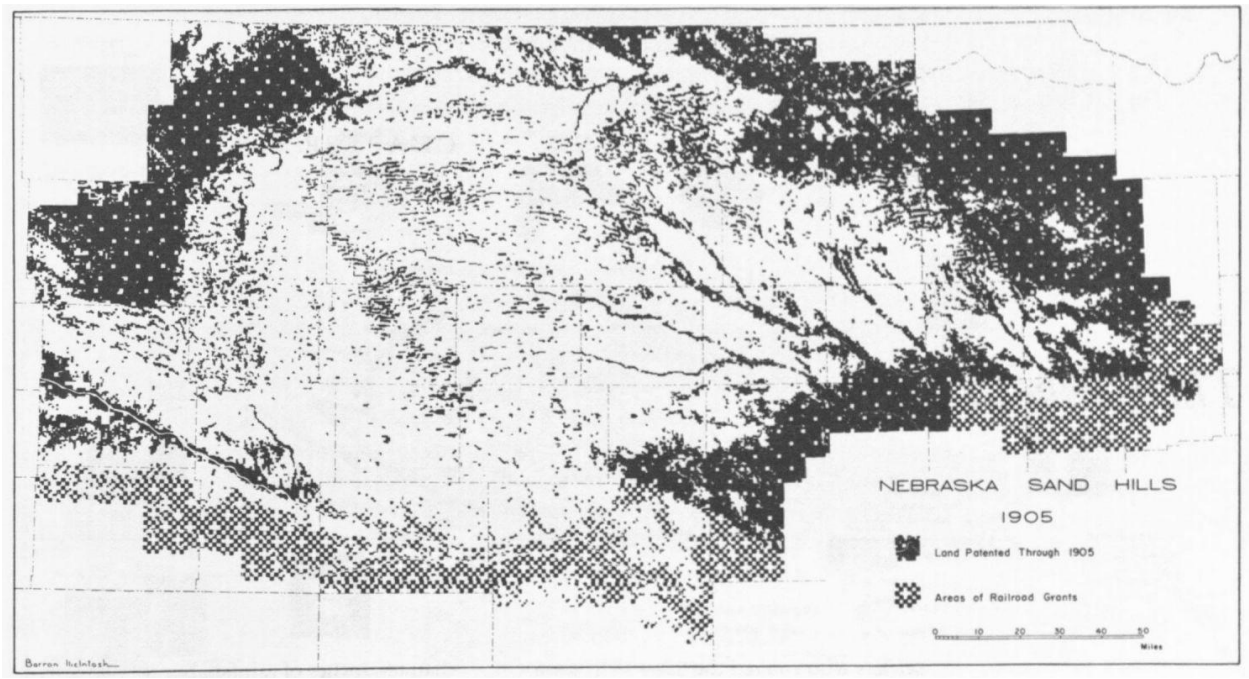
modified if it were to work under the soil and climatic conditions of many arid regions (Hibbard 1965). In addition, these officials sought a positive gesture that might change settler perception. The failure of many earlier homesteads in the Sand Hills had discouraged people from even considering the area. The Kinkaid Act hoped to change the image of this land. It was thought that increased acreage would allow settlers to succeed in the harsh environment.

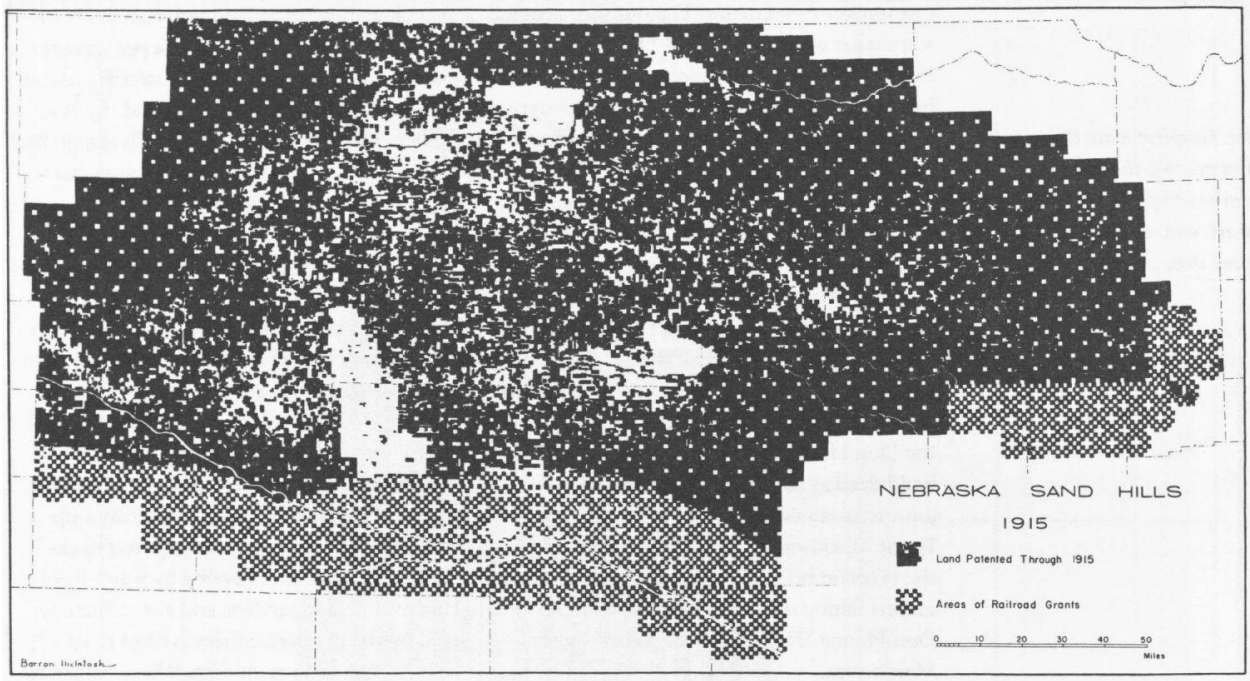
While applying to all of Nebraska west of a line from Holt County southwest to Hayes and Hitchcock counties, the Kinkaid Act impacted primarily the Sand Hills. On land patent maps prepared for 1905 and 1915, the contrast is obvious (Maps 9 & 10). Before 1905 the Sand Hills had been largely bypassed by settlers with only the river valleys patented for homesteads. By 1915, however, nearly all the Sand Hills had been claimed with the exception of three tracts reserved for National Forests (McIntosh 1996). In total, 7,834,240 acres were dispersed through the Kinkaid Act. Barring a large amount of speculation, the post office maps should show a similar increase of settlement.

In general, a patchwork of land laws was used to settle Nebraska. Many of these were used by speculators to make a profit, especially when residency was not a requirement. The Homestead Act did a better job of getting land in the hands of settlers. This law, in conjunction with railroads sale, was largely responsible for attracting settlers to Nebraska.

Accessibility

Wishart (1990) has called isolation one of the great hardships of settling the Great Plains. Settlers wanted to receive news and information from the outside world—the basis for establishing post offices—and they also needed a way to buy and sell goods. Therefore, lands near an accessible transportation route—and preferably a town—presumably would be deemed





Maps 9 & 10. Land Patents in the Sand Hills, 1905 and 1915. From McIntosh 1996, pp. 213 & 234.

relatively valuable. A corollary to this idea logically follows: As modes of transportation change over time, the value of sites adjacent to them would similarly evolve.

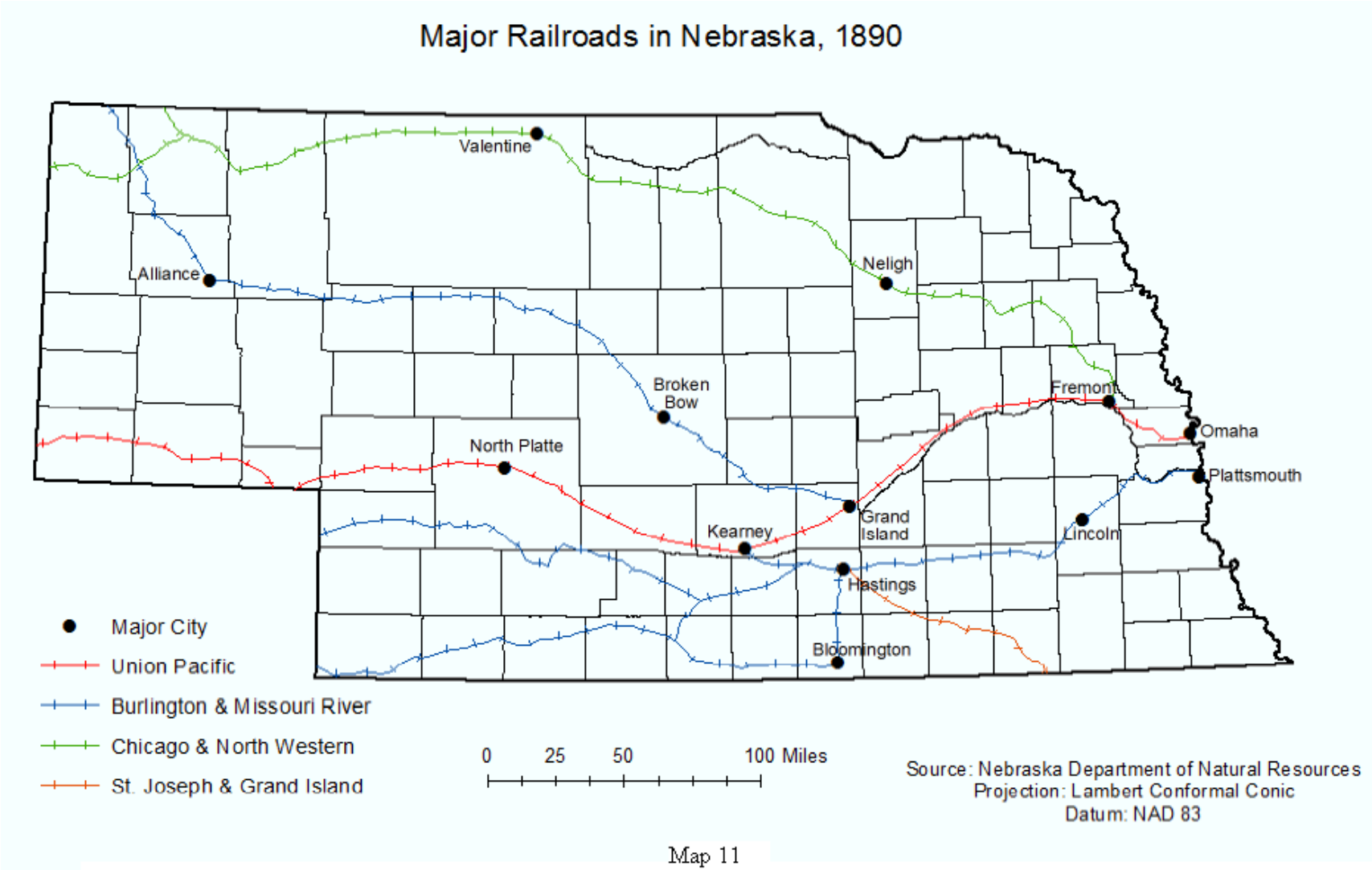
Early in Nebraska's settlement, the principal modes of heavy transportation were freight wagons on overland routes and riverboats. While overland routes such as the Oregon, California, and Mormon Trails are a storied part of Nebraska history, they were slow and most commonly used by migrants crossing Nebraska. Still, freighters did use them and other routes to supply military posts, the Mormon settlements in Utah, and the mining camps in Colorado, South Dakota and Montana (Map 4). At the time this was the only transportation option for such locations. Roads were developed in eastern Nebraska, but existed primarily between existing towns. No evidence exists that these several overland routes provided significant settlement extension into the interior of Nebraska.

The task of transporting large amounts of freight to Nebraska from the eastern states fell mainly to steamboats (Olson 1966). Despite attempts to navigate the Platte (the steamboat, *El Paso*, reportedly travelled to Scotts Bluff in 1852), the state's only truly navigable river is the Missouri (Shumway 1921). River towns such as Omaha, Bellevue, Decatur, Brownville, and Nebraska City were established early and settlers were reluctant to advance too far away from this transportation artery. In addition, pioneer settlement tended to be found along rivers and streams because this was viewed as the best land and the valleys provided a reliable source of water and timber (Fite 1966).

The dominant mode of transportation changed to railroads in the 1860s and virtually all writers have seen this new development as the most important factor in driving Nebraska settlement (Olson 1966; Dick 1975). The authorization in 1862 of the nation's first transcontinental railroad across Nebraska Territory meant that settlers would no longer have to

rely on rivers for goods and services. Railroads, in fact, soon actually "preceded population" in several instances and thereby provided ready-made corridors for settlement (Webb 1981, 274). In the words of historian Everett Dick, "each railroad trunk line, moving west from the Missouri River and spreading out to form a state network of transportation, attracted a band of settlement" (1975, 166). Richard Overton has emphasized this point as well, with specific reference to the Burlington system: "Newcomers clustered more densely near the actual rights of way and, in more unsettled regions, formed literal spearheads of civilization along the advancing tracks" (1941, 455). Settlers wanted easier access to transportation routes and were willing to pay extra for such a privilege. A similar pattern should be shown by post office data.

Although the Pacific Railroad Act of 1862 authorized immediate construction of the transcontinental route, serious building did not commence until after the Civil War. Then things went fast. By 1868, the Union Pacific Railroad stretched completely across the new state following the lowland along the Platte River and Lodgepole Creek (Map 11). Other railroads soon followed. The Burlington built from Plattsmouth to Kearney via Lincoln and Hastings between 1869 and 1872. It also constructed two other major lines in the 1880s: one from Hastings to Denver following the Republican River Valley, and another from Grand Island to Wyoming via the Sand Hills (Overton 1941). The Saint Joseph and Western built from near Fairbury in Jefferson County to Hastings in 1872 (Olson 1966). Finally, the Chicago and North Western (founded as the Fremont, Elkhorn and Missouri Valley) built from Fremont along the Elkhorn River and then across northern Nebraska to the Wyoming border between 1870 and 1886. Construction was initially slow on the FE&MV because of funding issues. This line had only reached Oakdale in Antelope County by 1879 (Grant 1996).


Major Railroads in Nebraska, 1890
Valentine
Alliance
Neligh
Broken Bow
Fremont
Omaha
North Platte
Plattsmouth
Grand Island
Kearney
Lincoln
Hastings
Bloomington
Major City
Union Pacific
Burlington & Missouri River
Chicago & North Western
St. Joseph & Grand Island
0 25 50 100 Miles
Source: Nebraska Department of Natural Resources
Projection: Lambert Conformal Conic
Datum: NAD 83

Map 11

By 1900, a dense network of railroads served the state and affected settlement in several ways. While many early railroads were spearheads of settlement, in many other instances, groups of people settled ahead of track construction. These entrepreneurs either speculated on the route of the railroad or lobbied for one to be built. Many settlements in the Republican River Valley, for example, were established prior to the construction of the Burlington's line (Olson 1966). Sometimes railroad companies would bypass such settlements and whole communities would move to the railroad. Phelps Center in Phelps County is an example, with settlers establishing the new town of Holdrege about five miles to the southeast. The town of Norfolk in Madison County was bypassed by the Chicago and North Western because residents would not pass a bond issue for the company. Norfolk was lucky, however, and later got a spur line from the Union Pacific, which enabled the town to maintain its original location (Dick 1975). Finally, railroads (or a company associated with the railroad) sometimes established towns themselves, usually located seven to ten miles apart (Olson 1966). These towns obviously had advantages over nearby communities not along the new track and often replaced them as local trading centers.

Chapter 4
Patterns

To analyze the patterns of settlement, it was necessary to divide Nebraska's history into manageable time periods. This was done with the aid of a graph (Figure 4) of post office establishment by year. I looked for trends (natural breaks in the data), and made decisions based on periods of rapid and slow growth. Seven timeframes emerged.

Settlement Before Organization: 1847-1853

As described in the previous chapter, the land that now comprises Nebraska was reserved for Native Americans before the establishment of Nebraska Territory in 1854. Despite this restriction, Anglo-Americans could gain access to the land with special permits. A large number of people traveled through the area on overland trails that followed the Platte River, many of whom used ferries along the Missouri River. Access was also usually granted to fur traders, missionaries, military personnel, and Indian agents. These people set up staging networks along the Missouri River. Traders and fur companies were especially interested in establishing transportation systems and a series of outlying posts. Everybody saw the mouth of the Platte River as strategic, providing the best route to the interior of the Great Plains.

In 1823, Lucien Fontenelle and Peter Sarpy established a trading post near Bellevue in today's Sarpy County. When Native Americans soon began to settle near the new post, the Bureau of Indian Affairs followed with its Indian Agency in 1827. With all this activity plus that of several missionaries, Bellevue had many of the services of a settled town and is usually considered the first white settlement in the state (Johnson 1880, Olson 1966). However, it did not have the first post office.

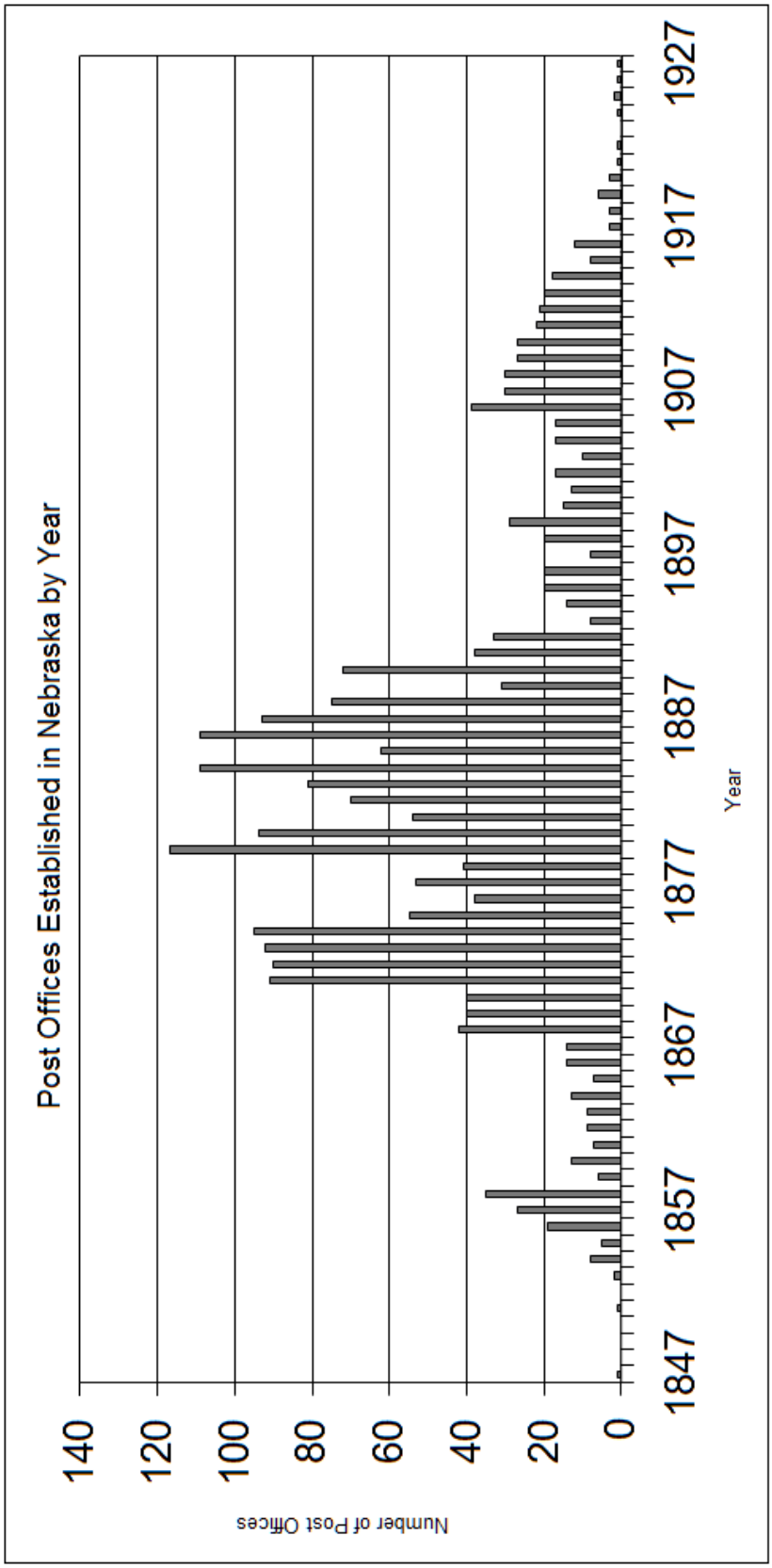

Post Offices Established in Nebraska by Year
Number of Post Offices
140
120
100
80
60
40
20
0
1847
1857
1867
1877
1887
1897
1907
1917
1927
Year

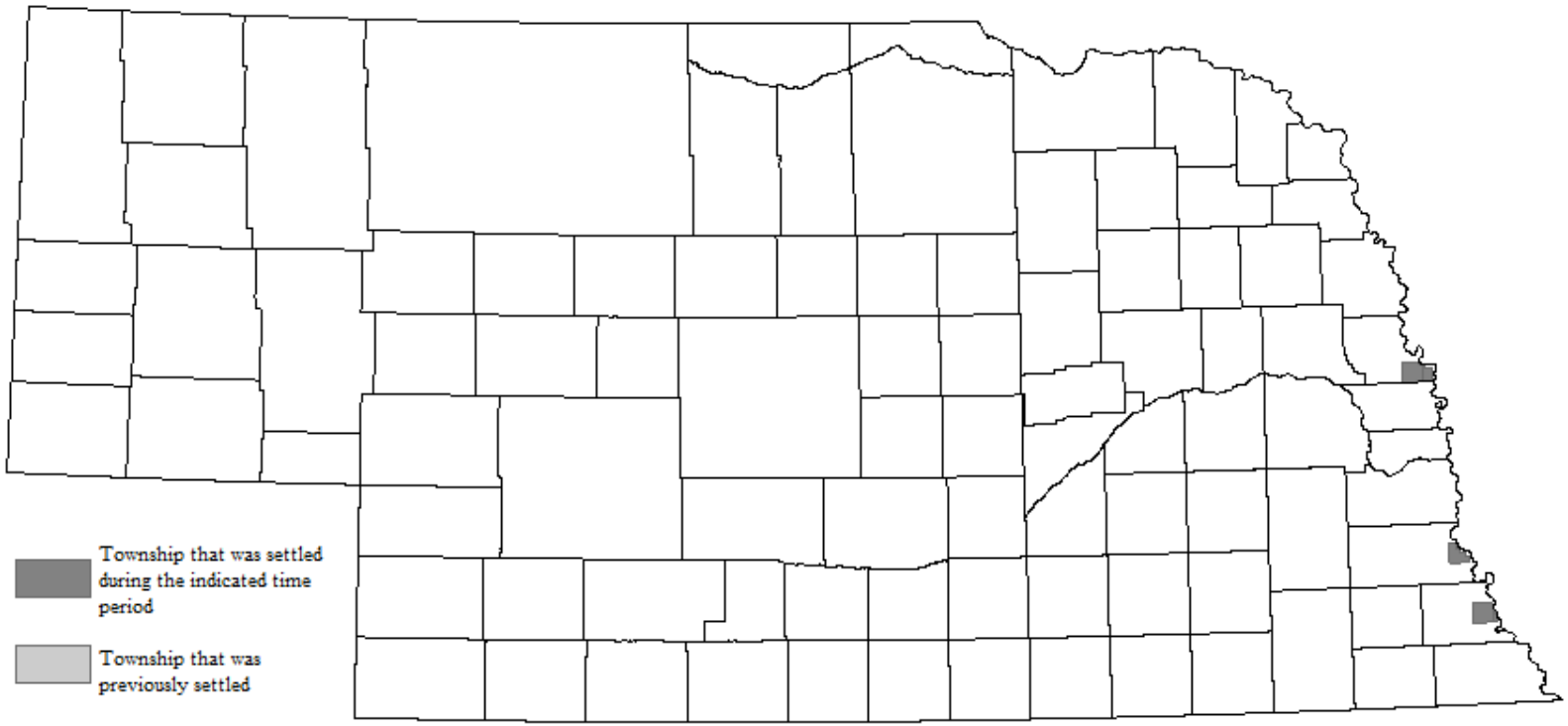
Figure 4

Four post offices were established before territorial organization, all along the Missouri River (Map 12). The first, established in 1847, was at the first Fort Kearny near Nebraska City in today's Otoe County. This fort was meant to be part of "wooden curtain" to protect the Indian frontier and maintain a defensive border between Native American populations and the western edge of white settlement in Iowa and Missouri. Construction began in 1846, but the fort was short-lived and abandoned by the spring of 1848. The acquisition of new lands in the West and a large influx of people using the overland trails required a rethinking of military strategy. A north-south defensive line was now less important than one along the overland trails and so a series of forts was established along the Platte River route. A new Fort Kearny near present-day Kearney was its anchor (Holtz 1972).

The post office at the first Fort Kearny, although open only a short while, occupied a strategic point along the Missouri River. It sat upon a bluff near the junction with Table Creek and was easily accessible to riverboat traffic. Its replacement office was established in 1853 at Nebraska City, which became an important city in territorial years. Squatters came to the area as early as 1852 when John Boulware established a ferry house and claim (Johnson 1880). Many locations in southeast Nebraska were sites of ferries for migrants traveling to the West Coast. These travelers sought quick overland routes that would intersect the Platte River Valley near the second Fort Kearny. Many of these roads would be used later by freighting companies.

The other post offices established prior to Nebraska becoming a territory were Fort Atkinson (later Fort Calhoun) in today's Washington County in 1851 and Brownville in today's Nemaha County in 1853. Brownville was another popular ferry site, while Fort Atkinson was originally a military post established in 1819. This fort sought to protect fur traders and aid Native Americans, but was largely ineffectual and abandoned in 1827 (Morton and Watkins,

Nebraska Settlement 1847-1853



Source: Nebraska Department of Natural Resources
Projection: Lambert Conformal Conic
Datum: NAD 83

Map 12

1918). Still, its former location was seen as a strategic town site.

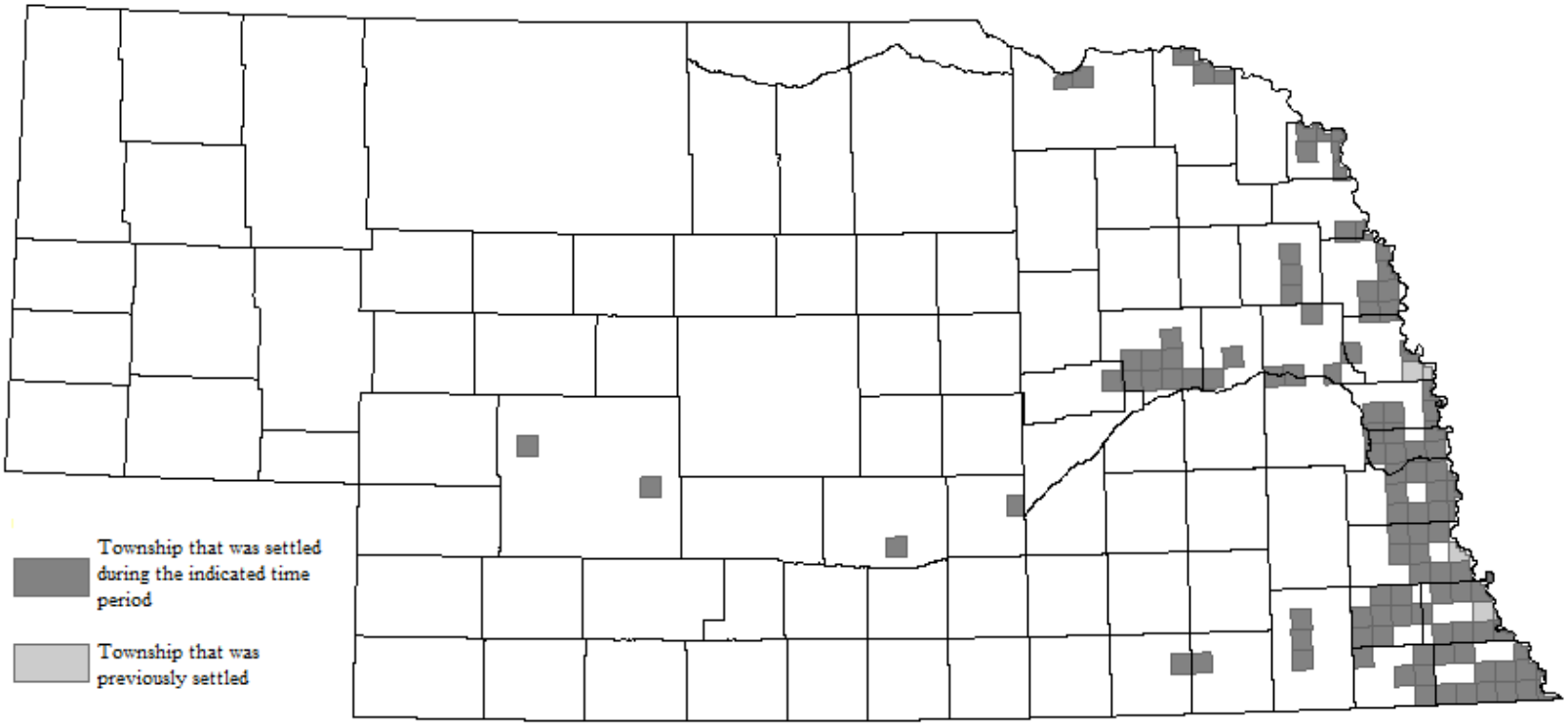
Land and town speculation was commonplace in this period. Bills designed to organize a territory had been introduced as early as 1845 and gained strength throughout the early 1850s. Among their strongest supporters were residents of nearby Iowa and Missouri. By 1853, when organization was a foregone conclusion, hundreds of these people were assessing future land claims. Ten men reportedly bought lots in Cass County from the Otoe prior to the organization of the state. The Commissioner of Indian Affairs, George W. Manypenny, reported as many as 250 claims were staked during this period (Holtz 1964).

Territorial Beginnings: 1854-1858

After Nebraska was officially opened to settlement, prospective settlers and speculators flooded in. Most settlement occurred in counties bordering the Missouri River and was more extensive south of the Platte River than to the north. Away from the Missouri, most settlers sought out major valleys, the Platte in particular (Map 13). These people had come principally from Iowa and Missouri and wanted to found towns that would serve as gateways to the interior. Most of these sites were at landing sites along the Missouri River (Olson 1966). Omaha in Douglas County, Bellevue in Sarpy County, Rulo in Richardson County, and Decatur in Burt County are prime examples.

Historians have noted that most early settlers to Nebraska were less interested in farming than they were in land speculation. Robert W. Furnas, the editor of the Brownville *Advertiser*, claimed that by 1859 "nearly all of the land in Nemaha county [sic] was entered by speculators" (Sheldon 1936). Such purchases of town sites and farmland were accomplished by a large promotional campaigns and extreme optimism. J. Sterling Morton, a prominent early resident

Nebraska Settlement 1854-1858



Source: Nebraska Department of Natural Resources
Projection: Lambert Conformal Conic
Datum: NAD 83

Map 13

of Nebraska City, recalled that, during this period, every new town advertised that it was "located adjacent to the very finest groves of timber, surrounded by a very rich agricultural country. . . beautifully watered, and possessing very fine indications of lead, iron, coal, and salt in great abundance" (quoted in Olson 1942, 52-3).

The fact that few natural resources existed in eastern Nebraska except agricultural land and timber was of little concern (Olson 1966). In 1855, businessmen from Pennsylvania who sought settlers for the Big Nemaha River valley believed that extensive coal deposits existed in the area. Table Rock in Pawnee County was founded there the next year, but no coal was found (Edwards 1876).

The band of settlement along the Missouri River was widest in the south, while only a few settlements existed north of Tekamah in present-day Burt County. Dakota in Dakota County, the northernmost ferry site, was across the Missouri River from Sioux City, Iowa. The most remote Missouri River settlement was Niobrara in Knox County, which was located at the mouth of the river of the same name.

Although the river towns all served as gateways to the interior, overland travel was still difficult at this time. Most settlers did not want to be too far from the big river, since "settlers during these first years of settlement were compelled to go to the Missouri for the great portion of their provisions" (Edwards 1876, 13). Also, many settlers opposed moving too far west for fears of Native American attacks (Wishart 1994).

Most inland settlements that existed also followed the courses of major streams, especially the Platte, the Big and Little Nemaha, and the Elkhorn plus Weeping Water and Salt creeks. Valleys were important to early settlers for a number of reasons. Though too shallow for

navigation, they provided an ample supply of water plus wood for fuel and construction material. These bottomlands also were fertile.

A few towns were located along overland trails that headed west from the river towns toward Fort Kearny, the gold fields of present-day Colorado, or other destinations. Routes either followed the Platte River or took short cuts to the fort starting in Brownville or Nebraska City. Tecumseh in present-day Johnson County, Fremont in Dodge County, and Columbus in Platte County were originally stage stations or road ranches along these routes. Merchants at such locations made good profits by having monopolies on hay or food. Columbus also prospered because of a ferry over the Loup River (Wishart 1994). The popularity of the Platte route and the superior quality of land along its banks largely explains the settlement pattern.

The remaining outliers during this period are associated with the latter years of overland travel to Oregon or California. Post offices were established at both Fort Kearny and Big Sandy in 1858. The latter location in present-day Jefferson County was the site of a number of station houses that sold goods to travelers. In 1859, a toll bridge was established to cross the Big Sandy Creek and by 1860, five stores operated in the area selling "flour, whisky, tobacco, meat, etc." (Dawson 1912, 272). Two ranches along the overland trail in today's Lincoln County also acquired their own post offices. One was established at Pawnee in 1854, another at O'Fallon's Bluff in 1856.

Finally, note should be made of two Indian agencies established during this time. The Native Americans of eastern Nebraska, having relinquished title to most of their ancestral lands, received smaller reservations in exchange plus monies and other goods. To oversee the disbursement of these monies and to help Native Americans to assimilate into American culture, Indian agencies were established. The initial Omaha agency, at Black Bird in today's Thurston

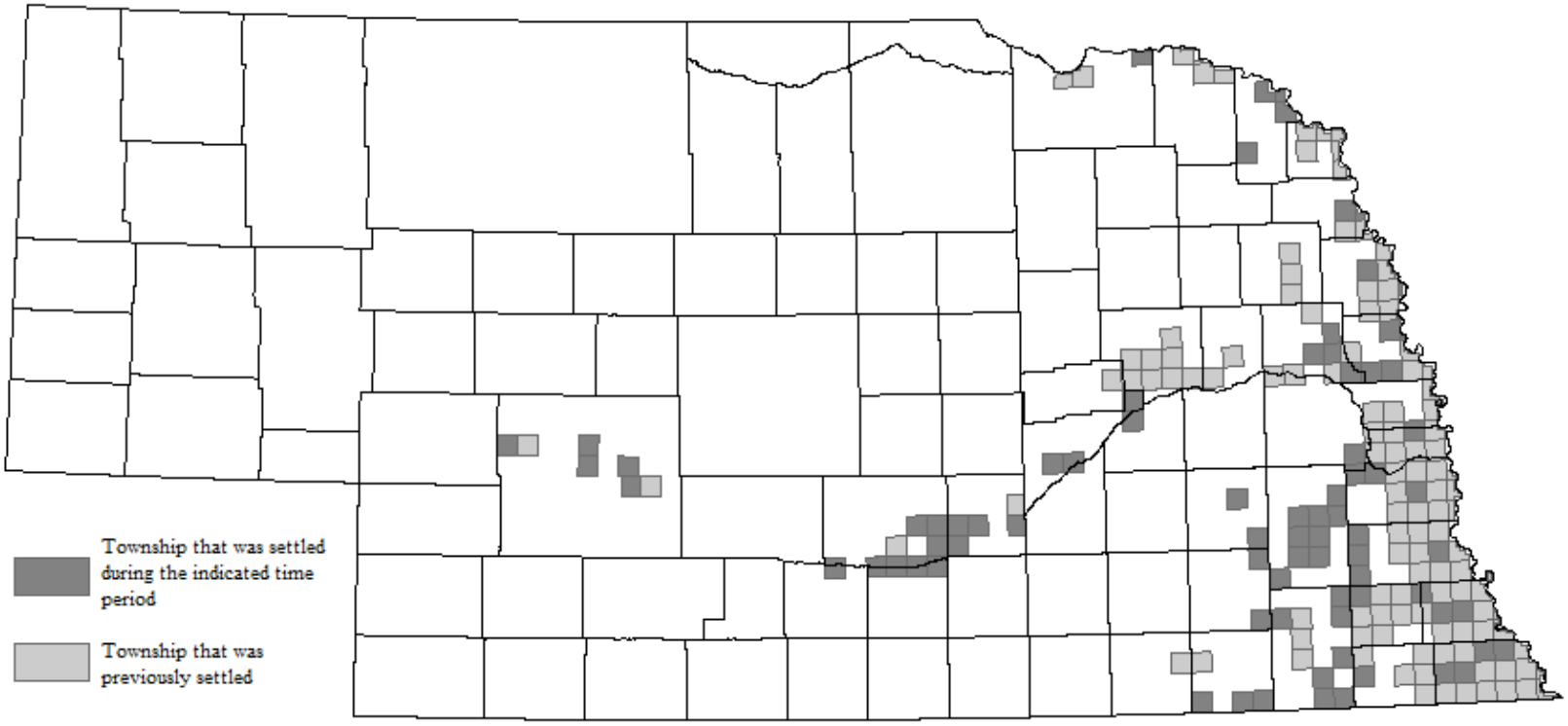
County, received a post office in 1856. The Pawnee agency along the Loup River in Genoa in Nance County got its post office in 1858.

The Panic of 1857, the Civil War, and its Aftermath: 1859-1867

Nebraska's initial land rush had been aided by the influx of printed money from banks established by the territorial legislature. When many of these banks closed in the late summer of 1857 because of a lack of funds, it initiated financial panic, and the same thing happened nationwide. During this period of depression (the Panic of 1857), prices fell, interest rates increased, and money was difficult to obtain. Many speculators, who had desired to become rich by selling land, turned to farming as a last resort. Other settlers left for the gold mines in Colorado and were replaced by a "stable farming population" (Sheldon 1936). The result was a decade of slower, but steady growth. An average of ten post offices was added each year (Figure 4). Interestingly, 1858 was a productive year for the establishment of post offices, despite poor economic prospects. The settlement during this period was still largely concentrated in the counties near the Missouri and along the Platte, which provided some infilling of settlement in the first two tiers of counties. The Salt Creek Valley in Lancaster County was also settled (Map 14).

The slow pace of settlement continued through the Civil War (1861-1865), but during this period the United States Congress passed two important acts—largely because Southern opposition had been removed—that would aid the future development of Nebraska. One was the Homestead Act of 1862, which allowed settlers to acquire land for only a small filing fee. Daniel Freeman's homestead in Gage County is considered the first homestead taken under this act. Also passed during this time was the Pacific Railway Act of 1862, which authorized the construction of a transcontinental railroad through Nebraska and awarded the Union Pacific

Nebraska Settlement 1859-1867



Source: Nebraska Department of Natural Resources
Projection: Lambert Conformal Conic
Datum: NAD 83

Map 14

Railroad a substantial land grant. Although construction of the line did not commence until 1865, land speculators and other people realized that a new type of settlement was about to begin. Settlers could now easily move away from the river.

As noted earlier, settlers during this period largely occupied lands previously passed over in counties near the Missouri River. To some extent, such settlement was the result of the Homestead Act. Edwards (1917) in his history of Richardson County, for example, noted that homesteaders "filled up" the last open land there in the late 1870s. Still, many established residents of Nebraska were less than pleased with the new, free-land policy. A common sentiment was that the country would be settled by "a class too thriftless to make a good living anywhere" (Edwards 1876, 31).

A second popular destination during this period was the Platte valley. New post offices there, many of them on ranches, do not form a continuous line of settlement, but people found profit in supplying freighters. The firm of Majors, Russell and Waddell, for example, had contracts with the army to supply forts and carry mail to Denver starting in 1860. It is reported that this shipping firm had 6,000 wagons and 75,000 head of oxen for its use (Bang 1952, pg. 13).

A number of the Platte valley's "road" ranches deserve more than a cursory mention. Merrick County, the area closest to established settlement, contained a large number. A post office was established at Shoemakers Point in 1863, and Brewers Ranch and Silver Glen followed in 1864 and 1865, respectively. A number of townships also were settled around Fort Kearny including Wood River (Shelton in Buffalo County) in 1860 and Kearney City in Kearney County (later referred to as Dobytown) in 1861. Finally, a natural spring and supply of lumber made the area around Cottonwood Springs in Lincoln County the site of at least three trading

posts in the 1860s. Isadore Boyer, Nelson Boyer, and Joseph Robideaux opened the first outlet in 1860 and kept a large herd of oxen to trade with migrants. Later the area was chosen as the site for a small cantonment, Fort McPherson, which opened in 1863 and endured until 1880.

In the eastern quarter of the state more new post offices were established along the Big Blue and Little Blue rivers. Camden post office, established 1862 in southern Seward County, was the site of a bridge across the Big Blue along a popular shortcut route to Fort Kearny. Salt Creek was also another popular site. The post office in Lancaster (modern-day Lincoln) was established in 1864 and was soon followed by Saltillo (1865) and Olive Branch (1866) farther upstream.

Finally, North Platte was established by the Union Pacific Railroad in 1867 as a division point. By building a machine shop, a twenty-six stall roundhouse, and a hotel, the company immediately created the largest town in central Nebraska. The contrast between North Platte and the temporary "hell-on-wheels" agglomerations of saloons, gambling halls, and brothels that followed the railroad's construction crews was clear to all observers.

Initial Prosperity: 1868-1874

Beginning just after statehood and lasting through the early 1870s, Nebraska experienced its second boom in settlement. During this time period, 490 post offices were established, including the first widespread growth away from the Missouri River. Because a large number of post offices were added during this time, I use two maps to display changes in settlement: 1868-1870 and 1871-1874. The state experienced ample precipitation during this time, giving credence to promoters and others who argued that "rain follows the plow." The land laws were basically the same as before, with the Timber Culture Act being passed only towards the end of the period in 1873. The most important settlement factor clearly was railroad construction.

The Union Pacific Railroad had been completed through the state by 1868 and other projects were beginning. The Burlington and Missouri River Railroad would build from Plattsmouth to Kearney between 1869 and 1872 and the Fremont, Elkhorn and Missouri Valley (the predecessor to the North Western) began building up the Elkhorn River Valley in 1870 and reached Wisner in Cuming County by 1871. The Union Pacific and the Burlington railroads were especially important, because they allowed settlement that was far removed from the Missouri River.

The Union Pacific and Burlington lines were also awarded land grants and started the process of selling these lands to prospective settlers. While boosterism did not peak until the 1880s, both railroads were eager to settle their territories with prospective customers. After finishing the transcontinental railroad in 1869, for example, the *Omaha Herald* reported that the Union Pacific company "was advertising through a newspaper circulation whose weekly aggregate was reaching nearly ninety-five million every three months" (quoted in Dick 1975, 174). Company officials focused attention on the Platte Valley and were particularly interested in attracting large groups or colonies.

As railroad construction began, "hope ran high" among settlers and rumors grew that "the railroads were coming—everywhere—and it was only a matter of time until those who had pioneered in the experiment would come into their reward" (Olson 1966, 174). A prime example occurred in the Republican Valley, where a number of colonies were established in the early 1870s, even though railroad construction did not begin until 1878. Land company efforts had reached as far west as Culbertson in Hitchcock County by 1873 (Olson 1966). Other valleys exhibited similar patterns. The Elkhorn had settlements at O'Neill in Holt County in 1874, for example, even though the railroad would not arrive until 1880.

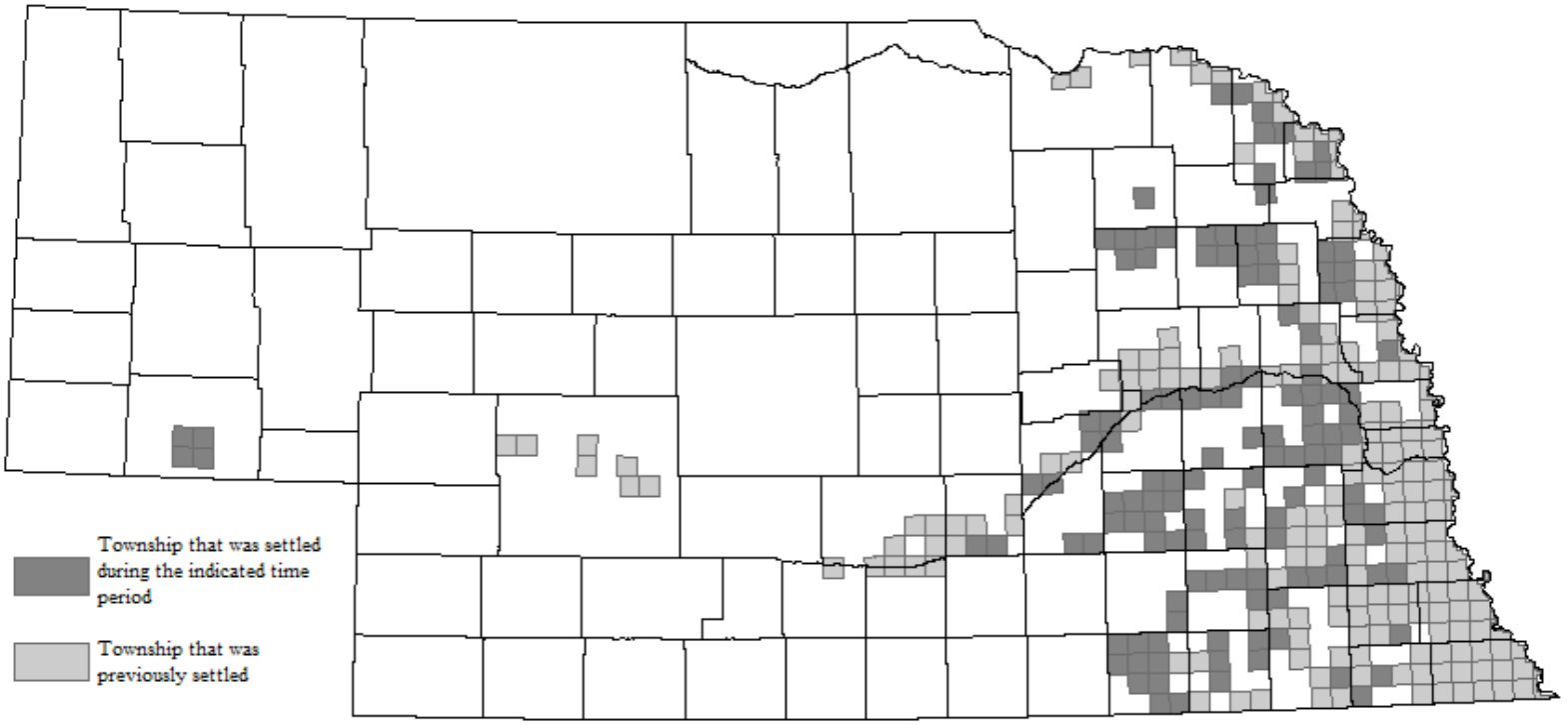
The first three years of this boom (1868-1870) show extensions of settlement north and south of the Platte River, but still primarily in the eastern third of the state. Expansion largely follows three river basins: the Elkhorn, the Big Blue, and the Little Blue (Map 15). The Elkhorn was the site of the Fremont, Elkhorn and Missouri River Railroad, and while construction had only reached into Cuming County by this time, the prospects of railroad access and the fertile land led to settlement in Stanton and Madison counties. Places like Wisner (1868) and Norfolk (1869) became prominent locations.

South of the Platte, the Big Blue and its tributaries contributed to new settlement in Saline, Seward, York, and Hamilton counties. Similarly, the Little Blue and its tributaries—including Big Sandy Creek—contributed to new settlement in Jefferson and Thayer counties. Some of this activity can be explained by the Saint Joseph and Denver Railroad (later the Saint Joseph and Grand Island) building along Big Sandy Creek in 1870. A large amount of speculation existed in this valley as people anticipated the coming railroad, which would reach Hastings in 1872.

While new settlement was extending westward, unsettled areas in the east were being claimed by immigrants. Saunders County is most notable among these areas as large groups of Czechs and Swedes moved into the county. Swedish settlement of the county was mostly in the southern and eastern parts of the county and occurred between 1868 and 1870. A colony was established at Estina (near present-day Mead) in 1869.

One outlier does exist in the panhandle of the state. Sidney in Cheyenne County was started as a construction camp for the Union Pacific and barracks were estabished in 1867. It became a fort in 1870 to protect railroad construction and then a freight division point for the railroad since it was halfway between North Platte and Cheyenne, Wyoming. Sidney grew even

Nebraska Settlement 1868-1870



Source: Nebraska Department of Natural Resources
Projection: Lambert Conformal Conic
Datum: NAD 83

Map 15

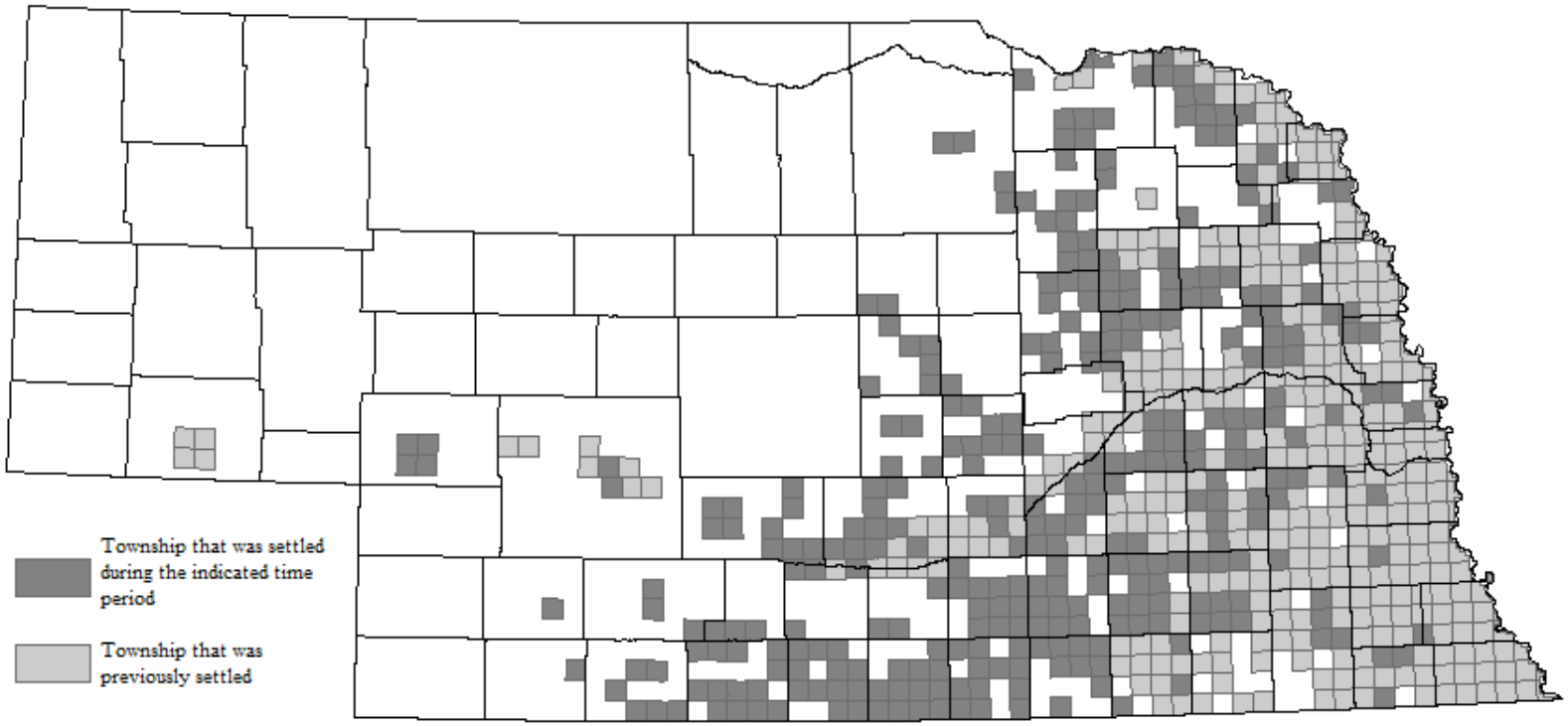
more when gold was found in the Black Hills in 1874. Because it was one of the closest railroad stops to the new mines, Wells, Fargo and Company used the town as a base for a new stage route to the northwest (Shumway 1921). The Black Hills goldfields would greatly affect settlement patterns in Nebraska for the next decade.

The second part of the boom period (1871-1874) saw a great extension of settlement north and south of the Platte River (Map 16). Most notable is expansion along the Burlington line and the Republican River. North of the Platte, people continued to settle along Elkhorn and made forays in the vicinity of the Loup Rivers. In addition, the colonies described earlier along the Republican River were extended up many of that river's tributaries. Beaver Creek in southern Furnas County was preferred over the main stem of the Republican because that creek provided more timber and the soils were not as sandy (Furnas County Historical Society 1987). Many of the northern tributaries also saw extensive settlement at this time including the Red Willow Creek and Medicine Creek. Not only did these creeks supply water, but they also provided good transportation routes towards the Platte Valley. A military route was laid out from Fort Hays to Fort McPherson, for example, which was later used by cattlemen driving cattle to Ogallala. A few remote post offices were established along these routes.

The valley post offices in southwestern Nebraska also served a large stock country between the Platte and Republican rivers. Hope (1871) in Hayes County was located along the military road to Fort McPherson, and Stockville (1873) in Frontier County was started as a trading post for local ranchers (Olson 1966). Frontier County was organized by cattle ranchers with the goal of passing laws that would discourage other settlers (Andreas 1882).

The tributaries of the Loup River also saw extensive settlement during this time. While most of Howard County was within a railroad grant, many people occupied the lowlands

Nebraska Settlement 1871-1874



Source: Nebraska Department of Natural Resources
Projection: Lambert Conformal Conic
Datum: NAD 83

Map 16

upstream in Valley and Sherman counties. Even the junction of the North Loup and Calamus rivers (Burwell) was settled in 1873. The Loup rivers (North, Middle, and South), known for their fertility, were described as "wide and shallow with low, grassy banks." Because they tap into the groundwater reserves of the Sand Hills, they are also "remarkable . . . for their uniformity of flow" (Shaver 1935, 2). The amount of settlement in the area led the army to establish Fort Hartsuff in 1874 in northern Valley County. Its main mission was to protect settlers from Native American attack, but later became a stopping point on the Garden Route to the Black Hills. The fort closed in 1881.

The effects of the railroad can also be clearly seen during this extension of the boom. One example is an area of new settlement along the Burlington line across northern Saline, Fillmore, Clay, and Adams counties. This route was completed to Kearney by 1872 and a number of towns were established such as Dorchester (1871), Friend (1871), Exeter (1871), Sutton (1871), Harvard (1871), Hastings (1872), and Kenesaw (1872).

Also, extensive settlement appeared within the Union Pacific's grant, particularly in Butler, Polk, Hamilton, Howard, Buffalo, Dawson, and Phelps counties. Several towns were also established along the Union Pacific proper during this time including Alda (1871), Gibbon (1871), Elm Creek (1872), Lexington (1872), and Cozad (1874). The first general store opened in Ogallala in 1868, but a post office was not established until 1873. The next year, the railroad built holding pens and loading chutes near town and Ogallala became a cattle town.

The most obvious gap in settlement for this time period occurs in western Thurston County, which was closed to white settlement and reserved for the Omaha. A small hole in settlement can also be seen in southern Gage County that corresponds to the Otoe-Missouria

Reservation. Although farther west, the Pawnee Reservation (Nance County) is beginning to be enveloped by advancing settlement as well.

Drought and Grasshoppers: 1875-1878

The years 1873-1876 ended the land rush abruptly, hurting not only the state's economy, but also its image nationally. It was a time of triple disaster: financial panic, drought, and grasshoppers. Historians claim that no growth occurred during these years and even depopulation for some areas. Problems began with the Panic of 1873, a national event that produced higher interest rates and bank closings across the country. These higher rates hurt economic growth and stymied many farmers who had acquired large debt loads from the start-up costs of homesteading. Also falling crop prices made it hard for most farmers in Nebraska to make a profit.

Matters only worsened from 1874-1876 when drought and "vast hordes of Rocky Mountain locusts . . . descended in ominous black clouds" upon the Great Plains (Olson 1966, 174). Addison E. Sheldon (1931, 494) provides an excellent account of one of these swarms:

> The vibration of [the grasshoppers'] wings filled the ear with a roaring sound like a rushing storm. As far as the eye could reach in every direction the air was filled with them. Where they alighted they covered the ground like a heavy crawling carpet. Growing crops disappeared in a single day. Trees were stripped of leaves. Potatoes, turnips and onions were pursued into the earth. Clothing and harness were cut into shreds if left exposed. Wheat and oats were mostly in shock, but the grasshoppers covered the shocks, cut the bands and gnawed the grain.

The economic hardships and loss of crops were too much for many residents—especially new residents—to overcome. "Many sold or gave away their claims and returned east" and the state

experienced little growth (Olson 1966, 175). Most railroad construction stopped, and even free land—provided by the Homestead and Timber Culture Acts—did not entice much new settlement.

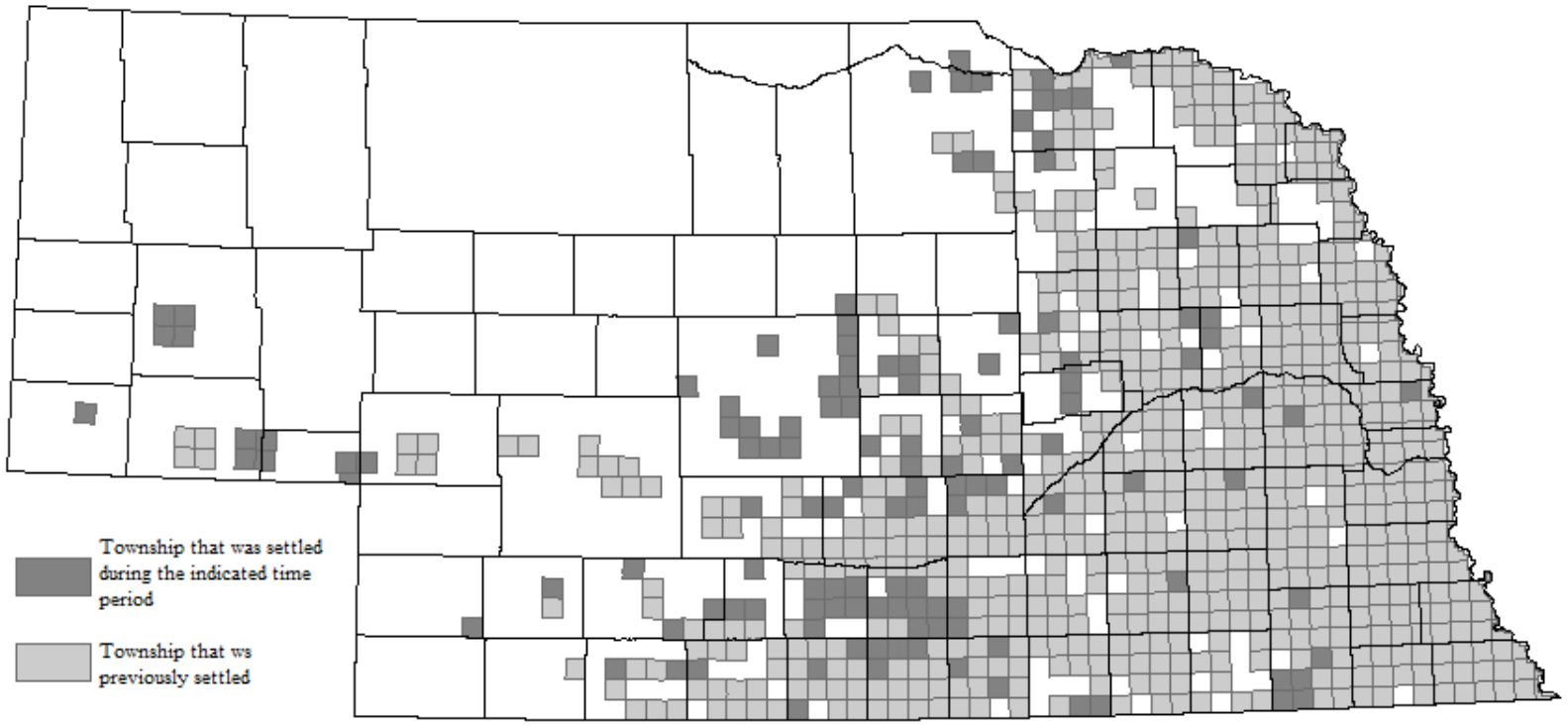
Since I did not look at post office closures, my data are unable to show what areas were abandoned. Somewhat surprisingly, however, 187 new post offices actually opened between 1875 and 1878 (Figure 4). While modest compared to the beginning of the decade, some westward expansion of settlement does exist. This was concentrated in Phelps and Kearney counties, the Union Pacific line, and the Loup valleys of Custer County (Map 17).

The discovery of gold in the Black Hills played an important role in settlement patterns during the late 1870s. After the Fort Laramie Treaty of 1868, the territory north of the North Platte River and west of a line running from North Platte to Springview in Keya Paha County was reserved as hunting ground for the Dakota (Map 6). Similarly, the western half of South Dakota, including the Black Hills, was designated as the Great Sioux Reservation. This arrangement worked well until 1874 when many prospectors illegally started mining in the Black Hills. The military initially tried to expel the trespassers, but the number was too great. Caravans of people were leaving daily from railheads in Sidney, Sioux City, Pierre, Bismarck and other locations. Eventually, the Black Hills were taken in a treaty in 1877.

Many Dakota chiefs were angered by the loss of the Black Hills, which were sacred to their people. This led to the Great Sioux War of 1876-1877 wherein Chiefs Sitting Bull, Crazy Horse, Dull Knife and others fought the United States Army. The ultimate peace resulted in the loss of Lakota hunting grounds in Nebraska and the opening of this territory to white settlement (Greene 1994).

At this time, the Union Pacific was still seeking organized colonies within its land grant.

Nebraska Settlement 1875-1878



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Source: Nebraska Department of Natural Resources
Projection: Lambert Conformal Conic
Datum: NAD 83

Map 17

in Phelps and Kearney counties, a large Swedish colony was established. The firm of Rylander and Hallgren was instrumental in procuring land for Swedish settlers and Victor Rylander homesteaded in the area himself. The sale of lands began in 1876, a particularly hard year for settlers, and continued until the early 1880s (Nelson 1943). Phelps Center received a post office in 1877 and was made the county seat. This latter status was short lived, however, because the railroad bypassed the town in 1881 and created a new settlement called Holdrege.

Farther west along the Union Pacific line, post offices at Big Springs (1876) in Deuel County, Lodgepole (1876) in Cheyenne County, and Kimball (1877) in Kimball County were all established. Initially they served ranches, because heavy farming settlement did not exist until the 1880s (Shumway 1921).

The Loup Rivers and Wood River also saw growth at this time. Much of this was in Custer County and includes New Helena (1875), Gasmann Springs (1877), Arnold (1877), and Lemore (1878). Settlement reached as far as Kent (1876) in Loup County. Custer County had been occupied by cattlemen for many years, but settlers began to move in once the fertility of the river valleys was realized. Like in much of the state where cattlemen and homesteaders met, the two groups battled for supremacy. The most infamous event in early Custer County history was the murder of homesteaders Luther M. Mitchell and Ami Ketchum by associates of rancher I. P. Olive. Mr. Olive was able to avoid jail time, but the homesteaders reached a majority of the population in 1878, which allowed them to pass herd laws and thereby prevent cattle from roaming freely on open range (Andreas 1882).

Ranching also expanded between the Republican and Platte rivers. New post offices were established at Wauneta (1877) in Chase County, Carrico (1876) in Hayes County, and Curtis (1877) in Frontier County. This practice would continue until homesteaders—who came

in large numbers after the completion of the Burlington railroad along the Republican Valley—outnumbered ranchers in this area.

In Holt County, settlement started along the streams and rivers of the northern part of the county. Paddock (1877), the initial county seat, and Red Bird (1878) were founded along the Niobrara River and Saratoga (1878) on its tributary, Oak Creek. These streams are noted for fertile soil and well-timbered courses. Paddock was established along the proposed route of the Central Pacific Railroad which was never constructed (Andreas 1882).

In Morrill County, Camp Clarke was established in 1876. The previous year, Henry T. Clarke had built a bridge across the North Platte River, which was used by wagons traveling to and from the Black Hills and included ones heavily laden with mining equipment. Mr. Clarke built a store at the location and the War Department provided a company of cavalry for the bridge's protection. The army also used the bridge as a shortcut to Fort Robinson and provided mail service to this remote outpost (Shumway 1921).

A noticeable break in settlement can be seen in the northeastern corner of the state that encompasses Wayne County and extends into Pierce, Knox, and Cedar counties. This gap is largely explained by speculation. The area was a considerable distance from a railroad or river, and therefore was not in demand by most speculators who were looking to make a quick profit. Rather it was purchased by three wealthy families from Rhode Island who had the resources and patience to wait for better profits. Once the North Western Railroad built a spur line from Norfolk to Emerson in Dixon County in 1881, widespread settlement in Wayne County commenced (Nyberg 1938).

Other gaps start to disappear during this time. As much of the eastern part of the state was settled, only the "badly drained, rugged, or remote lands remained in the public domain"

(Wishart 1994, 188). Pressure also mounted on the remaining Indian reservations, which were now seen "underutilized" in the hands of the Native Americans. Consequently, Governors Butler and Furnas both petitioned for land transfers so as to give "some of the choicest agricultural lands in the state" to "intelligent, enterprising citizens, who would render them productive" (Wishart 1994, 188).

The Pawnee were the first to leave. The 1870s had been particularly hard on the tribe. An exposed location north of the Platte River left the reservation open to attacks from the Lower Brule band of the Dakota. New white settlers in the area also resented the Pawnee for occupying choice lands that were well watered, timbered, and near a railroad. Many trespassers stole timber. Finally, the drought that beset the state at this time hit the Pawnee hard. Their attempts at agriculture failed and government policy forbade a buffalo hunt. By 1873, many tribespeople were asking to move to the Indian Territory, claiming that "there is nothing but starvation and death if we do not go south where we can hunt game" (Wishart 1994, 198). The last Pawnee left in 1875 and the lands were sold at auction starting in 1878. In that year the post office at Cedar River was established and more settlers followed in the 1880s.

The Otoe-Missouria experienced a similar situation. While they did not experience attacks from the Dakota, all the land around their reservation was settled. Again outsiders employed the rationale that the land of the reservation was a "garden" being wasted in Native American hands. The Otoe-Missouria were also subject to extreme poverty. Their annuities from previous treaties were nearly exhausted and what was left was often spent on improvements to the Indian agency and staff—blacksmiths, teachers, farmers, etc. During the drought of the 1870s, crops failed and trips to hunt buffalo had to be made across heavily settled areas. After much infighting among the chiefs, the Otoe-Missouria decided to sell the western two-thirds of

their reservation in 1876, but to retain the fertile Big Blue Valley. The rest of the reservation would be sold in 1881 with tribespeople moving to Indian Territory (Wishart 1994). Their land was quickly settled.

The Ponca also moved to Indian Territory during this time, but their remote reservation in Knox and Boyd Counties experienced little pressure from settlers. Much of Boyd County was still retained as part of the Fort Randall Military Reserve and the Great Sioux Reservation until 1889. Finally, the Omaha retained their reservation and a hole in settlement still appears there in western Thurston County.

Decade of Prosperity: 1879-1890

When normal rainfall returned in the early 1880s, settlement advances once again became the norm. The large number of post offices established again requires a division of this time period into two parts for easier analysis: 1879-1884 and 1885-1890 (Maps 18 & 19). On both of these maps, it is clear that the eastern third of the state now has been largely settled. The advances all are in western Nebraska.

Following the economic and climatic difficulties of the mid 1870s, the state government and the railroad companies worked hard to rebuild Nebraska's reputation. They began an extensive advertising campaign began in the 1880s that sought to revive the garden imagery. This campaign was spearheaded by officials with the Union Pacific and the Burlington and Missouri River railroads and focused both on potential settlers in the eastern United and western Europe. Samuel Aughey and Charles Wilber, the professors who had created the "rain-follows-the-plow" theory also traveled widely at this time to promote the state.

Settlement advanced fast in the 1880s and even penetrated the Sand Hills, which heretofore had been largely ignored by farmers and even cattlemen. This region, Nebraska's last

frontier, was a challenge to promote for the sand was there for all to see. Images of a true desert persisted, often echoing the words of Lieutenant G. K. Warren, who had led an expedition into the area in 1855. Warren had claimed that the Sand Hills were "uninhabitable except for nomadic hunters" and that the scenery was "exceedingly solitary, silent, and desolate" and "depressing to one's spirits" (quoted in Tubbs 1957, 13). That this poor opinion persisted into the 1880s is clear in the words of Levi G. Sweet, an official at the Chadron Land Office. In 1885, Sweet stated that "no grasses grow amongst the hills, not even weeds" (quoted in Tubbs 1957, 14). Even a railroad executive of the Burlington and Missouri River Railroad—which had an interest in the development of the land along its line—said that "from Blaine County westward for one hundred miles there can be very little said in favor of the country for agricultural purposes, and that little should be said very low" (quoted in Tubbs 1957, 15).

The first positive views about the Sand Hills came from cattlemen. Frank North, who had driven a herd of cattle through area in 1879, discovered not only a large number of lakes but also an unknown herd of seven hundred cattle in good condition. From this and other accounts, ranchers started to see potential there. Not only was there water and good grass, but the territory also was devoid of homesteaders and their fences (Olson 1966).

For western Nebraska as a whole, the railroad advertising campaign was aided by a return to normal rainfall in the late 1870s and above normal rainfall in the 1880s. The average rainfall for the state was 24.18 inches during this period (Olson 1966). These figures, when combined with reports of productive farmland, caused a large influx of new settlers, making the 1880s a decade "of progress and prosperity unparalleled in the early history of the state" (Olson 1966, 195). The population more than doubled from a total of 452,402 in 1880 to 1,058,910 in 1890.

Most of the new immigrants selected land between river valleys and on the tablelands that exist around the Sand Hills. Little timber existed in these areas so buffalo chips became a new source for fuel and sod a building material. Ranchers were required to make fences by the new herd laws, but the invention of barbed wire in 1873 greatly reduced the need for wood in such construction. Also wells were dug—often by hand—to provide these areas that were far removed from water supplies (Dick 1975).

Through all of this settlement and innovation the "Great American Desert was laughed at and scoffed away by local boosters, railroad promoters, and land agents" (Dick 1975, 16). Slowly, this negative image shrunk in size as its eastern limit was continuously pushed west. Speaking in Keith County in 1885, for example, Governor John M. Thayer summarized the changing ideas of agriculture in western Nebraska:

> I readily recall the time in the early years of Nebraska when we did not believe that agriculture could be made successful as far west as the county of Hall, and when it did begin to develop hope the most hopeful did not look for its growth beyond Kearney Junction; but it has now reached the Wyoming line (quoted in Dick 1975, 16).

Thayer claimed that "successful farming in western Nebraska is now an incontestable fact" (quoted in Dick 1975, 17) and his comments were echoed by many other citizens.

Railroad construction also experienced a boom in the 1880s and increased its mileage from 1,868 to 5,144 (Olson 1966). These new lines had no land grants, but the increased prosperity allowed for local investment. In turn, the railroads attracted people along their tracks. Among the new lines were two built by the Burlington and Missouri River, one along the Republican River and another through the Sand Hills (Olson 1966). The Chicago and North

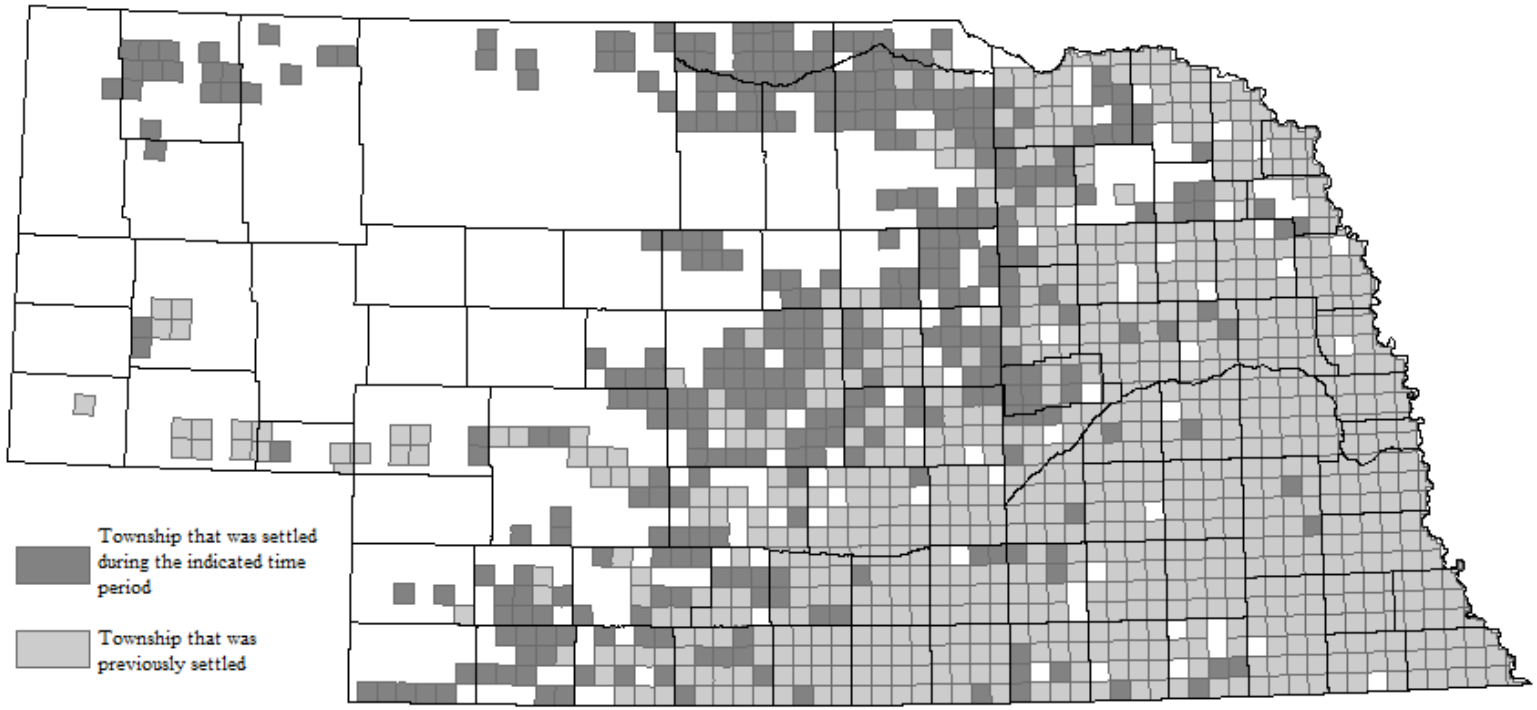
Western continued a track across the northern edge of the state following the Elkhorn and Niobrara Rivers. A number of spur lines were also built.

During the 1879-1884 period, the most noticeable settlement was along the Niobrara, through the northern Sand Hills and into the northern panhandle. Also, people filled in the areas to the southeast of the Sand Hills including the Garfield Table in Logan County. South of the Platte, settlement extended to the Colorado border along the Republican Valley (Map 18).

As part of an agreement in 1877 to relinquish the hunting grounds in Nebraska, the Dakota were entitled to beef provided by the United States government. Officials therefore established ranches in Cherry County near the border with the Great Sioux Reservation in South Dakota. Two of these ranches, McCann and Boiling Springs, established post offices in 1879. Also Fort Niobrara was established in 1879 to keep the peace between the Dakota and new settlers who were moving up the Niobrara Valley. Many of these new settlers came on the Fremont, Elkhorn & Missouri River Railroad, which had stalled in Wisner in 1871 because of a lack of funding. With news of the Black Hills gold strike, this company wanted to extend its track. The removal of Indian title to this territory in 1877 made this possible, and construction resumed in 1879. The railroad built through Antelope, Holt, Rock, Brown counties and reached Valentine in Cherry County by 1883. The railroad, purchased by the Chicago & North Western in that year, continued building to the west and reached Chadron in Dawes County by 1885 on its way to the Black Hills (Grant 1996).

The railroad along the Niobrara did much to settle the northern edge of the state, because settlement there had not extended much beyond Holt County before its construction. Post offices were established in Atkinson (1879), Long Pine (1879), Bassett (1882), Valentine (1882), and

Nebraska Settlement 1879-1884



Source: Nebraska Department of Natural Resources
Projection: Lambert Conformal Conic
Datum: NAD 83

Map 18

Johnstown (1883). The mail in Bassett was initially delivered in a unique way, tossed from a moving locomotive as it passed by during the night (Tubbs 1957). From the railroad, settlers moved out to the Holt Table, which extended across the north half of Holt County, and also to the Ainsworth and Long Pine Tables in Rock and Brown Counties (Map 1). These areas were noted to be productive hay grounds. Also settlement continued along the Niobrara and included Carns in Keya Paha County, which was the site of a ferry across the river. This provided access to settlers on the Springview Table in Keya Paha County.

Some settlement also entered the northern panhandle in advance of the Chicago & North Western Railroad. The towns of Gordon and Rushville (both 1884) in Sheridan County were established by people looking for a change of climate for health reasons (Shumway 1921). Farther west the initial communities in Dawes County grew around ranches and Fort Robinson. This fort was established in 1874 near the Red Cloud Agency to protect the Oglala and Brule bands of the Dakota. It was located along the route from Sidney to the Black Hills and had a post office established in 1884. Dawes and Sheridan counties were popular among early settlers because of productive, local soils and the presence of timber in the Pine Ridge area (Dick 1975). Other settlements were established along the White River and its tributaries including Whitney (1883), Crawford (1884), and Chadron (1884).

Two outliers exist in the panhandle during this time, both along the stageline from Sidney to the Black Hills. Redington in Morrill County started as a ranch, but its location at a local timber supply in Lawrence Draw attracted early settlers. Farther north on the Niobrara River, Augustine McLaughlin and John Hughes established ranches near the present day town of Marlsand. Both men had post offices, the first being Corban (1880) in Box Butte County (Centennial Committee 1988).

Railroad construction also resumed in the southern part of the state. The Burlington line followed the Republican River to the Colorado border in 1882, leading to a number of new upland post offices in Hitchcock and Dundy counties. These included Benkelman (1880), Max (1881), Haigler (1882), and Trenton (1884).

New settlement away from the Burlington line occurred mostly in Hayes County, which was still primarily ranching territory. Hayes Center (1884) was established for the sole purpose of becoming the county seat and Palisade (1880) grew along Frenchman Creek (Kay 1991). New settlers pushed out many of the ranchers who had settled the area previously and effectively killed the Texas cattle drives.

The Loup River drainage basin also attracted new people. A number of railroads planned to follow the various rivers through Custer County and, like in the Republican Valley, prospective settlers moved in ahead of construction. The Burlington's line through the Sand Hills was surveyed from Broken Bow to the Box Butte Table in 1884. Similarly, the Kearney and Black Hills Railroad surveyed along the Wood and South Loup rivers to the goldfields of the Black Hills. Its construction, however, would only reach Callaway in Custer County before being sold to the Union Pacific in 1898. Its final endpoint was Stapleton in Logan County in 1911.

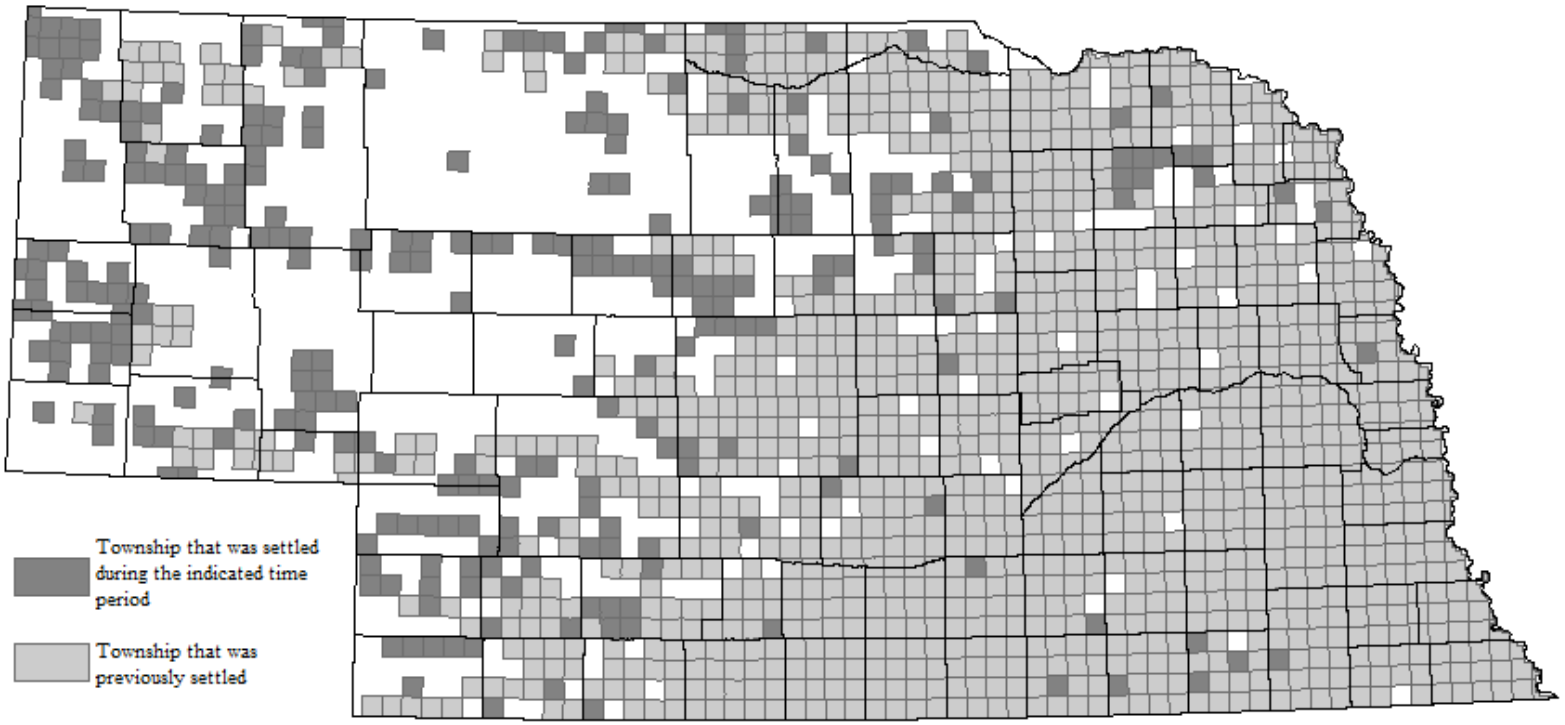
Plans for the Kearney and Black Hills Railroad encouraged a large colony of army veterans to settle the Garfield Table in southeastern Logan County and northeastern Lincoln County (Map 1). This land was fertile and possessed both a shallow water table and the South Loup River. Colonists organized Loup County in 1885 and established post offices at Dorp (1882) and Logan (1884) in Logan County and at Garfield and Whittier (both 1884) in Lincoln County (Logan County Historical Society 1985).

Settlement in the second part of the 1880s was also dominated by railroad construction. One line across the central Sand Hills is clearly visible (Map 19). Extensive activity also exists in the panhandle and in Perkins, Chase, and Dundy counties in the southwest. Finally, an inlier in Pierce and Wayne counties becomes occupied during this time.

The east-west line through the Sand Hills is the Burlington route that reached Alliance in 1888. It spawned a number of post offices across Blaine, Thomas, Arthur, Grant, and Sheridan counties including Dunning (1887), Halsey (1887), Thedford (1887), Whitman (1887), Hyannis (1888), Lakeside (1888), Antioch (1888), and Bingham (1888). Most of these communities were established by the Lincoln Land Company, a subsidiary of the Burlington, whose purpose was to select and develop town-sites (McIntosh 1996). This railroad also encouraged quick settlement of the Box Butte Table around Alliance and Hemingford (Map 1). Land on the table was popular because of a shallow water table. Alliance became a central market for the surrounding area and also served ranchers in the Sand Hills to the east and south of town. It called itself alternately as "The Queen City of the Panhandle" and "the Omaha of western Nebraska" (Centennial Committee 1988, 11).

Burlington officials also built two spur lines off their Republican Valley line. The first, from Holdrege to Cheyenne, was constructed in 1886 and 1887. It led to a number of post offices in southwestern Lincoln and Perkins Counties including Moorefield (1886), Wellfleet (1887), Dickens (1888), Wallace (1887), Madrid (1886), Grant (1886), and Venango (1887). The second line was planned to run from McCook to Holyoke, Colorado. Surveying and grade work began in 1886, but quickly stalled. Imperial (1885) and Lamar (1886) in Chase County were established during this planning stage, but the railroad did not reach Imperial until 1892 and never made it past that point.

Nebraska Settlement 1885-1890



Source: Nebraska Department of Natural Resources
Projection: Lambert Conformal Conic
Datum: NAD 83

Map 19

The Burlington spurs aided greatly southwestern Nebraska. Much of northern Dundy County was occupied in the late 1880s and focused around a store at Ough (1886) that had a well (Dundy County Historical Society 1988). The Champion post office (1887) was established near a mill site along Champion Creek. Settlement also continued along the Chicago & North Western railroad to the north. Post offices were established in Crookston (1886), Cody (1886), Kilgore (1888), Nenzel (1888), and Merriman (1886) in Cherry County. Northern Sioux County was similarly crisscrossed by railroads with the Chicago & North Western extended into Wyoming by 1886 and the Burlington line later crossing the county's northeastern corner.

In the panhandle settlers occupied a large area near the North Platte River. This region had been Dakota hunting ground prior to 1877 and then the realm of large cattle ranches. Herds kept the grass short and the soil trampled, which discouraged prospective settlers. These conditions remained in place until 1889, when state officials closed the open range throughout most of the state and the federal government took a strong stand against fencing the public domain, a practice used by large cattle ranches for years. The Nebraska Land and Feeding Company, for example, had fenced in 500,000 acres in Cherry, Sheridan, and Box Butte counties. While enclosure laws were not heavily enforced until the Theodore Roosevelt administration, they did embolden homesteaders in western counties to pass herd laws (Olson 1966). This was the case for many counties in the panhandle including Banner and Deuel (which included present day Garden County) between 1887 and 1889. Cattlemen then drove their herds to Wyoming where more liberal herd laws were in force (Historical Society of Garden County 1986).

The earliest settlements in Garden, Morrill, and Scotts Bluff counties were along the North Platte River, and included Lewellen (1887), Oshkosh (1889), Bayard (1888), Gering

(1887), and Mitchell (1887). Just to the south, people settled along Pumpkin Creek and in the Eden Valley. Pumpkin Creek, in fact, was the site of the first irrigation appropriation in Nebraska in 1882 and the availability of timber and water attracted so many settlers that a new county—Banner—had to be created between Scotts Bluff and Kimball counties (McIntosh 1996, Banner County Historical Society 1982).

Even though many cattle herds were pushed out by new homesteaders in the 1880s, most of the Sand Hills remained the realm of ranchers. During cattle drives from ranches north of North Platte to the Great Sioux Reservation, for example, more people noticed the lake district of the central Sand Hills and saw its potential. New ranchers there near the Dismal River in McPherson County established that county's first post office, Omega, in 1890 (Schroeder 1986).

A Decade of Poverty: 1891-1903

The growth of the 1880s produced a positive spirit in the West. Towns and individuals invested heavily in their future, the railroads extended lines, and each town aspired to "become a commercial center, or a great railway metropolis, or both" (Olson 1966, 203). All of this speculative activity was double edged, of course. It contributed heavily to the boom, but would also lead to a bust in the 1890s.

As the 1880s closed, only large portions of the Sand Hills and smaller sections of the southwest and panhandle remained unsettled. People thought they had defeated the Great American Desert and that the state would continue to fill with productive farmers. What they did not know was that the 1880s was a relatively moist period in Nebraska history and that a major drought was about to occur.

A few areas experienced low rainfall totals as early as 1889, but the next decade brought truly severe conditions to a widespread area. In 1890, rainfall statewide averaged only 17.15

inches, and the number was even worse in 1894 when only 13.54 inches of rain fell. George Condra, founder of the Nebraska Conservation and Survey Division, stated that the drought of 1893-1895 was even more damaging than the more famous drought of the 1930s (McIntosh 1996). Also like the 1930s, severe economic depression (the Panic of 1893) added to the troubles of Nebraska farmers (Olson 1966). Low grain prices led to the failure of farms and then a general exodus from the region (Dick 1975).

Farmers simply could not survive. Lack of rain and crop losses "not only made it impossible for people to pay their debts, but it was a question of just surviving" (Fite 1966, 127). State and private organizations provided what aid they could, including an 1891 legislative appropriation of $200,250 for farmer relief. Conditions then worsened. In 1894, the Nebraska State Relief Commission tried to collect private donations but could only raise $28,999.38. Crop prices were so low that what little grain was harvested became nearly worthless. In many areas, corn was used as a heating fuel instead of coal (Fite 1966).

Settlers who stayed on the land lived a sparse existence. Nellie Bly, a reporter for the *New York World*, interviewed women near Valentine in 1895. They all lamented the lack of food and their inability to raise a decent crop. One person explained that she had tried everything to raise a crop, "but the hot air last summer burned everything up." Corn "stalks only grew about a foot—too short even for fodder" (McIntosh 1996, 175). Poor weather conditions persisted until the end of the decade.

Paradoxically, even during the harshest year of the 1890s, some new settlement occurred on Nebraska's frontier, particularly in Boyd County and the southern panhandle (Map 20). Two factors are responsible in Boyd County. First, the area was newly opened to settlement after the

Dakota ceded it in 1889. Second, the Chicago & North Western built a spur line through the county in 1902. The post office at Anoka was established in 1903 along this line (Snider 1938).

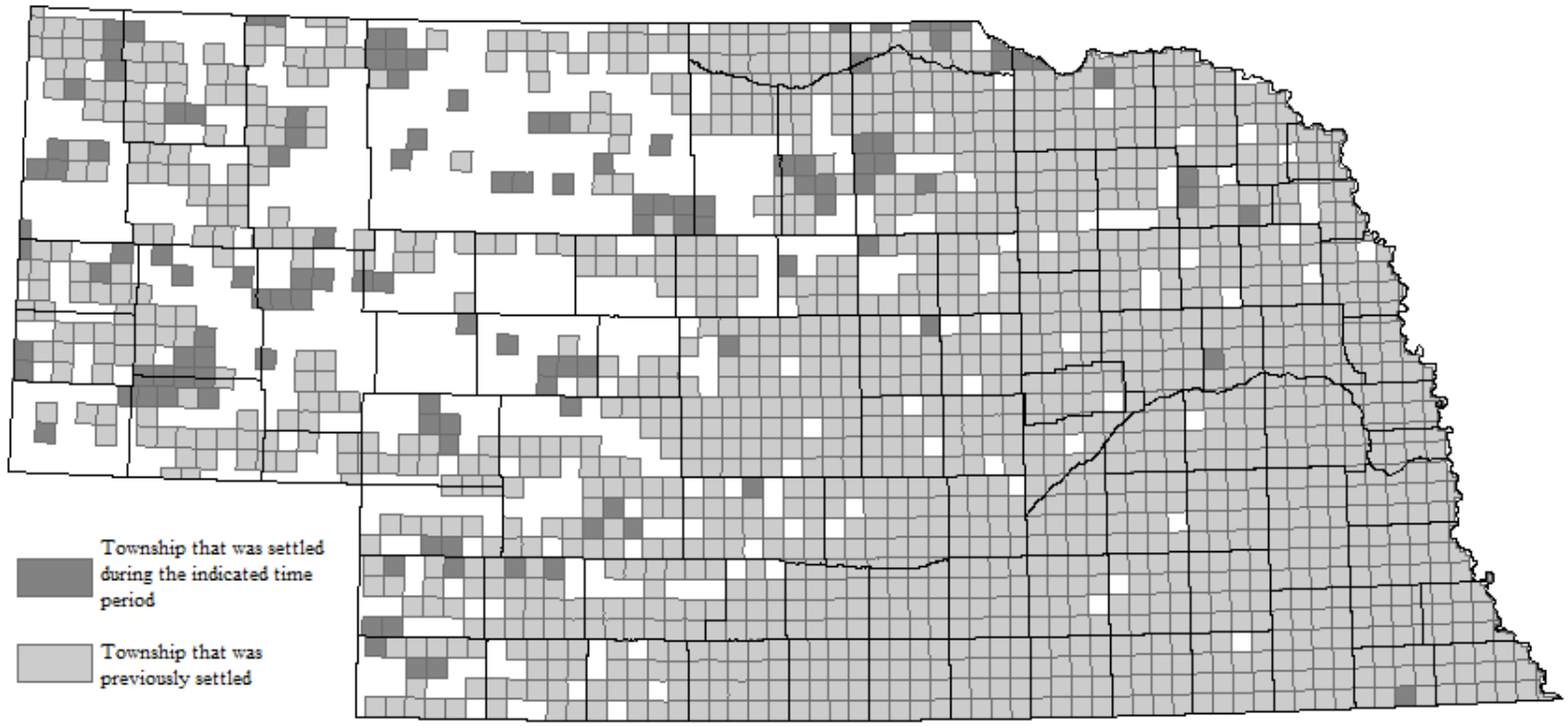
A railroad also explains the settlement in the southern panhandle. In 1899, the Nebraska, Wyoming & Western Railroad (later part of the Burlington system) surveyed a line from Sidney to the North Platte River and completed construction a few years later. Dalton, in northern Cheyenne County, received a post office in 1902. At the same time, the Burlington was building south from Alliance to Bridgeport in Morrill County and from there along the North Platte River to Wyoming (Shumway 1921). Post offices were established at Angora (1901) in Morrill County and Scottsbluff (1900).

Most settlement beyond Boyd County and southern panhandle was random. Wayne County, which was discussed earlier, saw continued settlement until the all but one township had a post office. Most other settlement occurred on the margins of the Sand Hills, especially in McPherson County as an extension of the Garfield Table.

The drought of the 1890s caused many farmers to reconsider their practices. Prior to this crisis, most of the area's agricultural organizations had praised corn as "king" among crops, but corn clearly required too much moisture for semiarid climates. As a result, grain sorghum, alfalfa, and wheat became favored alternatives. Sorghum was usually raised in conjunction with livestock, and cattle numbers also expanded greatly at this time. They provided diversity for the farmer and therefore increased security (Fite 1977). Alfalfa was promoted as a forage crop and as a way to maintain soil health in crop rotation. Like the other crops, wheat required less water than corn and its planted acreage increased by 450,000 acres between 1899 and 1901 (Olson 1966). Diversity became the new model for success.

Irrigation, although initially scoffed at and regarded as a sign of a failed farmer, became

Nebraska Settlement 1891-1903



Source: Nebraska Department of Natural Resources
Projection: Lambert Conformal Conic
Datum: NAD 83

Map 20

still another important part of the agricultural discussion during the 1890s. Some people touted groundwater for this purpose, others existing streams. Projects began in the early 1880s, but then applications quickly jumped from eight in 1889 to 117 in 1895 (McIntosh 1996). The federal government's Reclamation Act of 1902 made the process easier by constructing several reservoirs in the area. Most of these were along the North Platte valley and they withdrew a total of 783,360 acres from the public domain (Sheldon 1936).

Many of the farmers who had moved onto upland areas in western Nebraska found their wells to be totally inadequate during the dry 1890s. Depth to the water table usually made new hand-dug wells impractical and therefore encouraged mechanical means of drilling and pumping (Webb 1981). A final readjustment to the drought of the 1890s was a realization that 160 acres was not enough land for the average farmer to exist in the Great Plains. The difficulties of raising crops there required larger acreages and therefore more generous land laws. While this idea applied to much of the High Plains and was implemented via the Enlarged Homestead Act in 1909, experimental legislation was first tested in Nebraska.

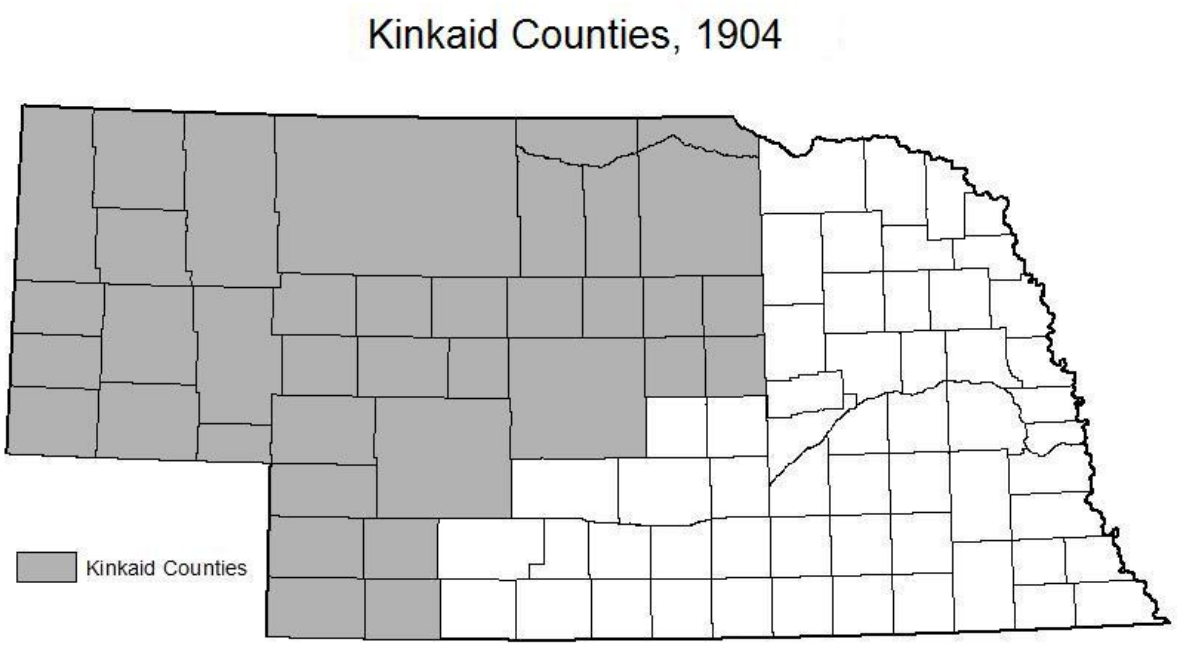
The Kinkaid Era (1904-1927)

As the drought of the 1890s came to a close, much of Nebraska's northwestern quarter remained unsettled and much of the land taken in homesteads during the previous decade had been abandoned. Although new methods of farming better adapted to the semiarid west were being implemented, few new settlers were now willing to cast their lots with western Nebraska and the Sand Hills. The reputation of all these lands had been damaged, and common knowledge now held that the Sand Hills were incapable of cultivation (McIntosh 1996). Something drastic had to be done if this negative imagery was to be overcome.

Most Nebraskans were convinced by 1900 that a 160 acre plot was inadequate in western Nebraska. The drought forced them to agree with the earlier opinion of John Wesley Powell who had written of the area in 1878 that the "grass is so scanty that the herdsman must have a large area for the support of his stock. In general a quarter section of land alone is of no value to him . . . . Four square miles may be considered as the minimum amount necessary for a pasturage farm" (quoted in Reynolds 1949, 20). An editorial in the *Alliance Times* in 1902 put the sentiment even more bluntly: "[t]here is not a quarter section of land west of the 100th meridian on which a man could make a living" (quoted in Reynolds 1949, 21). The solution seemed obvious, and so beginning in 1902, representatives for western Nebraska promoted a series of bills that would allow for an enlarged homestead in western Nebraska.

Moses Kinkaid, Nebraska's representative for the Sixth District, submitted the successful legislation in 1904. After initially calling for a full two square miles for every homesteader, he modified his stance after concerns were raised that such a law might be abused by cattle ranchers. Six hundred and forty acres was the new number, four times the amount in the old Homestead Act of 1862. To further insure that only true farmers would come, the law did not allow for the commutation of homesteads and required applicants to live on and improve their land for five years. The object of this new Kinkaid Act was to "compensate the homesteader in quantity of land for what it lacked in quality and productiveness" (Reynolds 1949, 22). The law clearly was aimed at the Sand Hills, and Mr. Kinkaid wrote it to apply only to forty-one western counties in Nebraska (Map 21).

Settlers liked the generous new legislation. Four hundred men showed up at the Alliance land office when it opened on June 28, 1904, and it took two days to process the initial crowd. By 1912 nearly all available government land had been taken. Kinkaiders wisely tended to



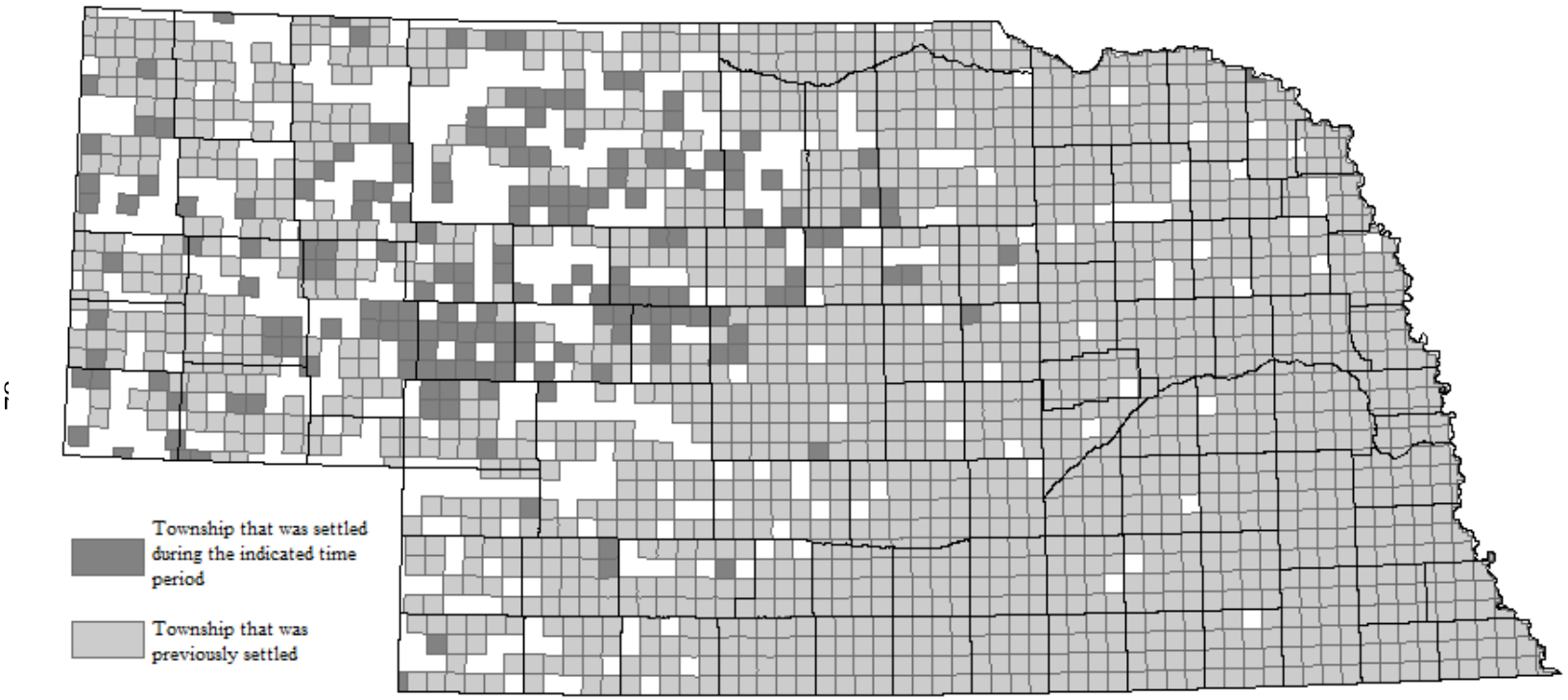
Map 21

diversify their agricultural activities. Most of the land was reserved for grazing, but small areas of farming existed in valleys. Still, life on Kinkaid homesteads remained difficult (Reynolds 1949). Although initial settlement was great, many Kinkaiders sold their land to large ranchers soon after receiving their land patent (McIntosh 1996).

The Kinkaid Act had a clear impact on the settlement of the Sand Hills (Map 22). Areas that had been overlooked in the past were suddenly filled with people. Arthur County, which was organized during the Kinkaid period, is the best example. Prior to 1904, only one township had an established post office within its boundaries. By 1927, only four townships lacked post offices.

Nebraska's last railroads were also constructed during the Kinkaid years. The Union Pacific purchased the Kearney and Black Hills Railroad and extended the line from Callaway

Nebraska Settlement 1904-1927



0 25 50 100 Miles

Source: Nebraska Department of Natural Resources
Projection: Lambert Conformal Conic
Datum: NAD 83

Map 22

to Stapleton in Logan County. A railroad was also built east from Bridgeport along the North Platte River (Shumway 1921). Broadwater (1909) in Morrill County was established along this line. Finally a small line was built by the Chicago, St. Paul, Minneapolis & Omaha Railway along the Missouri River and established the town of Maskell (1907) in northeastern Dixon County. Maskell represents the only newly settled township that fell outside of the Kinkaid area.

The Kinkaid Act represents the last pulse of frontier settlement in Nebraska. The final post office established during this period was Velma in Arthur County in 1927. After this, 491 townships remained unsettled by post office parameters. Most of these are in the Sand Hills and the western half of the state. If one were to calculate population per square mile over the decades since 1927, it would surely show a reversal of the process discussed in this thesis. Many people were driven from the land by the drought and Great Depression of the 1930s and rural populations in Nebraska have never rebounded. This trend accelerated after World War II. Even today farm sizes continue to increase and mechanization requires an ever smaller agricultural labor force. The number of "frontier" townships in Nebraska today is several times larger than that shown on Map 22.

Conclusion

The settlement history of Nebraska was dominated by issues of the accessability and productivity of available lands. Because property was relatively cheap, individual land laws—with the exception of the Kinkaid Act—had little effect on where people chose to live.

Settlement maps clearly show that river valleys and other transportation routes were preferred sites. The valleys also provided the essentials of water and wood. With the development of a railroad network, the previously riverine pattern moved inland, with the lines themselves serving as spearheads. For example, the North Western and Burlington railroads in the 1880s provided the first good market access for settlers in the Sand Hills, and the settlement map for this period clearly shows this pattern. Conversely, a lack of rail lines meant a dearth of settlers. Wayne County is the state's best example.

Land productivity was second important consideration for settlers. Over time, Nebraska's image has varied from a desert to a garden. Partly this image depended on the prevailing climatic conditions, but the settlement process itself altered views. As people pushed west, the area seen as unproductive receded ahead of the frontier. Within a given area, lands that were viewed as the most productive, such as river valleys, were usually settled ahead of the uplands. Therefore, a combination of accessibility and productivity drove the overall settlement process.

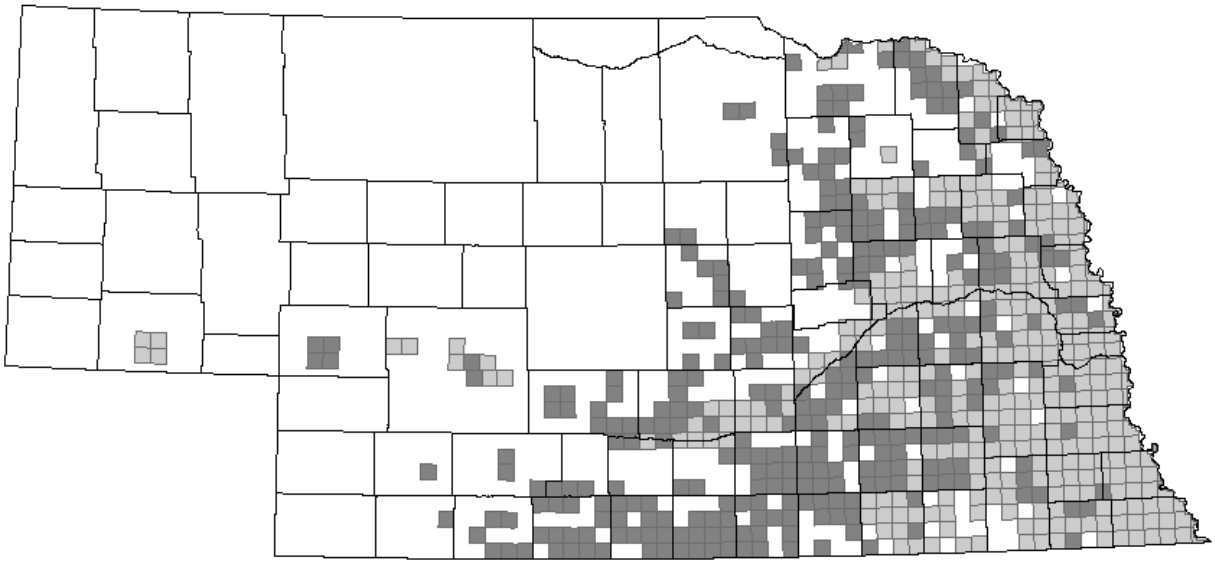
Issues of accessibility and productivity worked at a fine scale on the Nebraska frontier, making it difficult to draw a definitive frontier "line" for any period. Other state studies show similar results. This raises questions about the validity of the concept of such "lines." Although they may be valid at some scales, they seem inappropriate at the state level. When the census bureau stopped drawing their national frontier line in 1890 because the frontier region had

become too broken by outliers, these officials identified the problem. Post office maps show it even more clearly. Each map in this thesis contains both outliers and inliers that resist easy generalization.

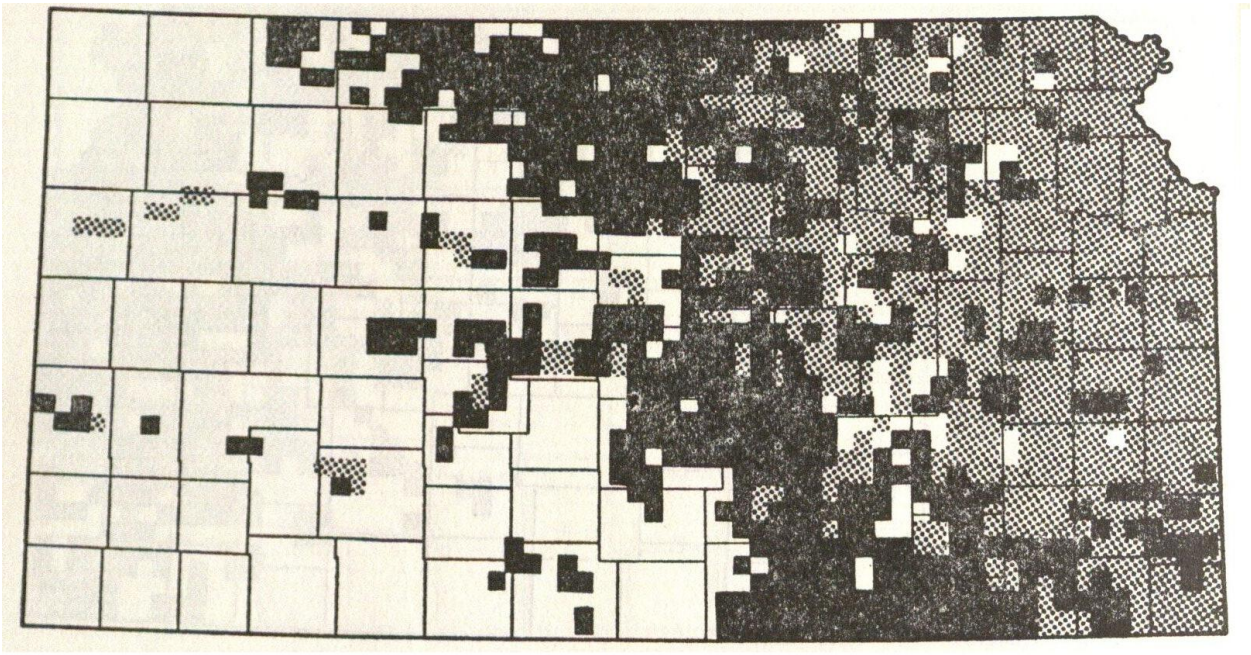
The accuracy of the post office method raises several questions that could be pursued in future study. For one, some patterns displayed in the maps are not adequately explained in current historical literature. For example, the suitability of the southern Sand Hills (McPherson and Logan counties) for ranching was discovered in 1879, but was not heavily settled for another decade. Current accounts do not describe if these areas were used only seasonally and/or if ranchers were based elsewhere.

Post-office maps also suggest that settlement often preceded railroad construction. Proposed rail lines might have produced a similar result. Consider Chase County. The Burlington Railroad line through the county was never completed, but post offices were still established along the proposed route. One potential for this kind of study would be the tributaries of the Loup River, which had a number of proposed and partially completed railroads.

Finally, one could look at border regions to see if conditions across state boundaries affected settlement. This, of course, would require post-office studies in other states. Fortunately, Shortridge has completed studies for Kansas (1974) and Missouri (1980). Consider, as an example, Shortridge's "Kansas Settlement, 1870-1874" (Map 23) and my "Nebraska Settlement 1871-1874" (Map 24). This comparison suggests that lands in the border region were preferred in both states.



Map 23. Nebraska Settlement 1871-1874



Map 24. Kansas Settlement, 1870-1874. From Shortridge 1974, pg. 92.

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