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# DEMOGRAPHIC FOUNDATION OF RURAL EDUCATION IN THE GREAT PLAINS The Impact of Urbanization

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# DEMOGRAPHIC FOUNDATION OF RURAL EDUCATION IN THE GREAT PLAINS

*The Impact of Urbanization*

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**Abstract**—Demographic factors have been transforming the Great Plains for decades. Although the region increased in population from 1950 to 2007, closer analysis reveals that much of that growth took place in the Core Based Statistical Areas. These population trends reflect the broader impact of urbanization. This article provides a contextual perspective of critical demographic factors influencing the structure of educational systems in rural communities in the Great Plains region, helping administrators and decision makers understand the impact of demographic forces on the delivery of rural education.

**Key Words:** rural demographics, rural schools, urbanization in Great Plains, rural community development

## INTRODUCTION

A range of demographic factors have been transforming the rural fabric of the Great Plains region of the United States for decades. Changes and shifts in population naturally constitute one of the major factors. Although the Great Plains region increased in population from 1950 to 2007, closer analysis reveals that much of that growth took place in the Core Based Statistical Areas (CBSAs)—which include Metropolitan Statistical Areas (MSAs), adjacent counties economically and socially linked to a core urban place of at least 50,000 people; and smaller Micropolitan Statistical Areas, those urban areas with core populations between 10,000 and 50,000. These popula-

tion trends reflect the broader impact of urbanization on the relatively lightly populated Great Plains, most notably the ongoing movement of rural residents to CBSAs within the Plains, especially metropolitan areas. The process of urbanization creates higher population densities in cities and urban places, and lower population densities in rural areas in the Great Plains.

Clearly the mechanization and increased efficiency of production agriculture methods contributed to the urbanization of the region by reducing the number of farms in the Great Plains states by 37.1% between 1950 and 2012 (USDA 2013). In addition nearly three-quarters of the counties in the Great Plains lie outside CBSAs (Wilson 2009, 9), and the rural population declined by 4.3% between 1950 and 2010. The percentage of the rural population compared to

TABLE 1. CHANGES IN THE NUMBER OF SCHOOL DISTRICTS, RURAL POPULATION, AND NUMBER OF FARMS IN THE GREAT PLAINS STATES FROM THE 1950S TO THE PRESENT

School districts			Rural population				Farms		
Year	Number	Percent change	Year	Number	Percent change	Percent rural	Year	Number	Percent change
1952	23,496		1950	9,155,642	45.9%		1950	961,119	
1972	5,049	-78.5%	1970	7,583,594	-17.2%	29.4%	1969	620,388	-35.5%
1992	4,148	-17.8%	1990	8,933,589	17.8%	26.0%	1992	501,930	-19.1%
2012	3,194	-23.0%	2010	8,759,595	-1.9%	20.0%	2012	604,500	20.4%

Sources: USDA 2013; U.S. Census Bureau—CoG 2012.

the total population provides a stark statistic on urbanization. In 1950 45.9% of the population in the Great Plains states was rural, but this fell to 20.0% in 2010 (see Table 1). In other words, the depopulation of the rural Great Plains stems from losing people “who live on the land rather than a loss in total numbers” (Hudson 2011, 6).

Urbanization and the resultant significant rural population losses affect the framework of a number of political, social, and economic institutions in the rural Great Plains—as would be expected. Scholars evaluating the impact of the urbanization of this region arrived at a range of conclusions. Some researchers show hopeful optimism (Lavin et al. 2011; Parton et al. 2007; Redlin et al. 2010) or mixed confidence (White 2008), revealing the tenacity of the communities and the people; others expressed pessimism about the future of the rural Great Plains (Adamchak et al. 1999; Popper and Popper 2009.)

This article provides a contextual perspective of critical demographic factors influencing the structure of educational systems in rural communities in the Great Plains region. We ask this: What are the population shifts and demographic factors that have an effect on—and will continue to influence—the foundation, operation, and governance of rural schools in the Great Plains? This is an important policy question. Despite the effects of urbanization, rural areas in the Great Plains will continue to educate children, and communities will need to provide resources to schools. This research, in part, will help administrators and decision makers understand the impact of demographic forces on the delivery of rural education, and hopefully assist them in addressing critical and fundamental policy issues. To provide additional insight on the impact of these demographic changes on rural education, we also examine some key statistics on Nebraska, a representative Great Plains state. Finally we offer perspectives on the influence of demographics on rural education and rural development policy in the Great Plains region.

### THE RURAL GREAT PLAINS AREA

Located in the center of the North American continent, the Great Plains region consists of all or portions of 10 U.S. states (North Dakota, South Dakota, Nebraska, Kansas, Montana, Wyoming, Colorado, Oklahoma, New Mexico, and Texas), and parts of three Canadian provinces (Manitoba, Saskatchewan, and Alberta). This large and loosely defined geographic region stretches from Canada to the Mexican border. Although most researchers consider the front range of the Rocky Mountains as its western boundary, the eastern boundary is less defined and a source of considerable debate (Lavin et al. 2011; Rossum and Lavin 2000; Webb 1931). The Center for Great Plains Studies (CGPS) and the *Atlas of the Great Plains* (Lavin et al. 2011), for example, include all of the Dakotas, Nebraska, and Kansas in their definition of the U.S. portion of the Great Plains (Center for Great Plains Studies, University of Nebraska n.d.). The U.S. Census Bureau defines the region more narrowly, including the same 10 states but with an eastern border beginning farther west, and with smaller segments of Texas and Oklahoma. The county-based Census Bureau definition (Wilson 2009) focuses on similarities in topography and physiographic history, whereas the CGPS takes a political geography approach.

However described, the Great Plains region constitutes a major space in American geography, containing approximately 18% of the land area of the Lower 48 states, according to the Census Bureau definition, and in 2007 contained about 3% of the U.S. population (Wilson 2009, 1). In other words, residents sparsely populate the region, as compared to the rest of the United States. The population density in 2007 for the area inside the Great Plains was 9.0 persons per square mile compared to 119.9 persons per square mile for the area outside the Great Plains (Wilson 2009, 14).

If we employ either the CGPS or the U.S. Census

definition, we can characterize vast geographic portions of the Great Plains region generally as nonmetropolitan or arguably rural in nature and structure. Although many of the residents of the Great Plains can be classified as urban—in other words, living in places with populations over 2,500—they tend to reside in small communities when contrasted to the overall United States. The region, then, consists of large areas of open space.

According to the census, a smaller percentage of the population in the Great Plains in 2007 dwelled in Metropolitan Statistical Areas (MSAs) than the national average: 68% versus 83% (Wilson 2009, 9). In addition, even when we rely on the CGPS definition, with a larger geographic area, we find few large MSAs in the Great Plains. Of the 50 largest MSAs in the United States, only Oklahoma City (43rd-largest MSA), with a population of 1.28 million, exists completely within the Great Plains region. Portions of the Dallas–Fort Worth–Arlington, Texas (4th); Denver–Aurora–Bloomfield, Colorado (21st); San Antonio–New Braunfels, Texas (24th) and Kansas City, Missouri and Kansas (29th) MSAs are located at the edges of the region. However, the Census Bureau definition of the Great Plains includes only parts of the Denver–Aurora–Bloomfield, Colorado, MSA on the western border and the San Antonio–New Braunfels, Texas, MSA on the eastern side.

The Great Plains, then, has a split personality when it comes to space and population. Most of the population lives in urban areas, yet much of the land can be described as rural in character.

## METHODOLOGY

We examined data collected by the U.S. Census Bureau that measure the rural population demographics of the 10 states in the United States that constitute the Great Plains region as broadly defined by the Center for Great Plains Studies and the U.S. Census Bureau. Although only the states of North Dakota, South Dakota, Nebraska, and Kansas are completely within the Great Plains—according to the CGPS—with portions of Oklahoma, Montana, Texas, Wyoming, Colorado, and New Mexico, we obtained and analyzed demographic data from the U.S. Census Bureau on rural areas in the entirety of all 10 states.

The lack of a clear, widely accepted definition of the term “rural,” however, presented a dilemma. Researchers have taken a number of approaches to defining this complex and elusive term. Clearly rural comprises more than agriculture and open areas with limited urban devel-

opment; there are other dimensions. Brown and Deavers (1987), for example, focus on socioeconomic differences with urban areas, Flora and Flora (2004) insert physical isolation, Sears and Reid (1995) add small communities, Walzer (1991) incorporates population density, and Wilkinson (1991) includes territory and the arrangement of people.

We employed the metropolitan/nonmetropolitan differentiation among counties in the analysis of the rural Great Plains states, utilizing January 1, 2011, definitions. Since the Census Bureau employs a county-based system for classifying metropolitan areas (MSAs), the researchers define as rural those counties that are not part of an MSA, an approach used by others that rely on census data (Johnson 2006). MSAs include a core area with a population of at least 50,000 and adjacent counties economically linked. This definition of rural, then, includes micropolitan areas—or those counties with a population in their core urban area between 10,000 and 50,000.

Nebraska serves as a case study of a typical state within the Great Plains. Located in the center of the area, and generally midrange in terms of population among states in the region, Nebraska can be considered representative of demographic trends and factors affecting the Great Plains states. We examine the nature of population loss in Nebraska’s nonmetropolitan areas and trends in school consolidation.

One challenge we faced was to select specific U.S. census population data that relate to the foundation of rural education. A study by the National Center for Educational Statistics that examined the status of education in rural America provides guidance in the identification of population statistics. That study concluded, “Rural public school systems differ from those in other locales in terms of the population they serve” (Provasnik et al. 2007, 7). According to the study, rural students tended to be white, a smaller proportion were at or near poverty, and a smaller percentage possessed limited English proficiency. Research, however, has begun to emerge that question some of these generalizations, such as ethnicity (Barcus and Simmons 2013).

We examined those statistics examined by the National Center for Educational Statistics and joined the discussion questioning the continuing accuracy of broad descriptions of rural schools in the Great Plains, especially in the face of changing population dynamics. The next section examines those changes, focusing on specific components of the population and other relevant demographics.

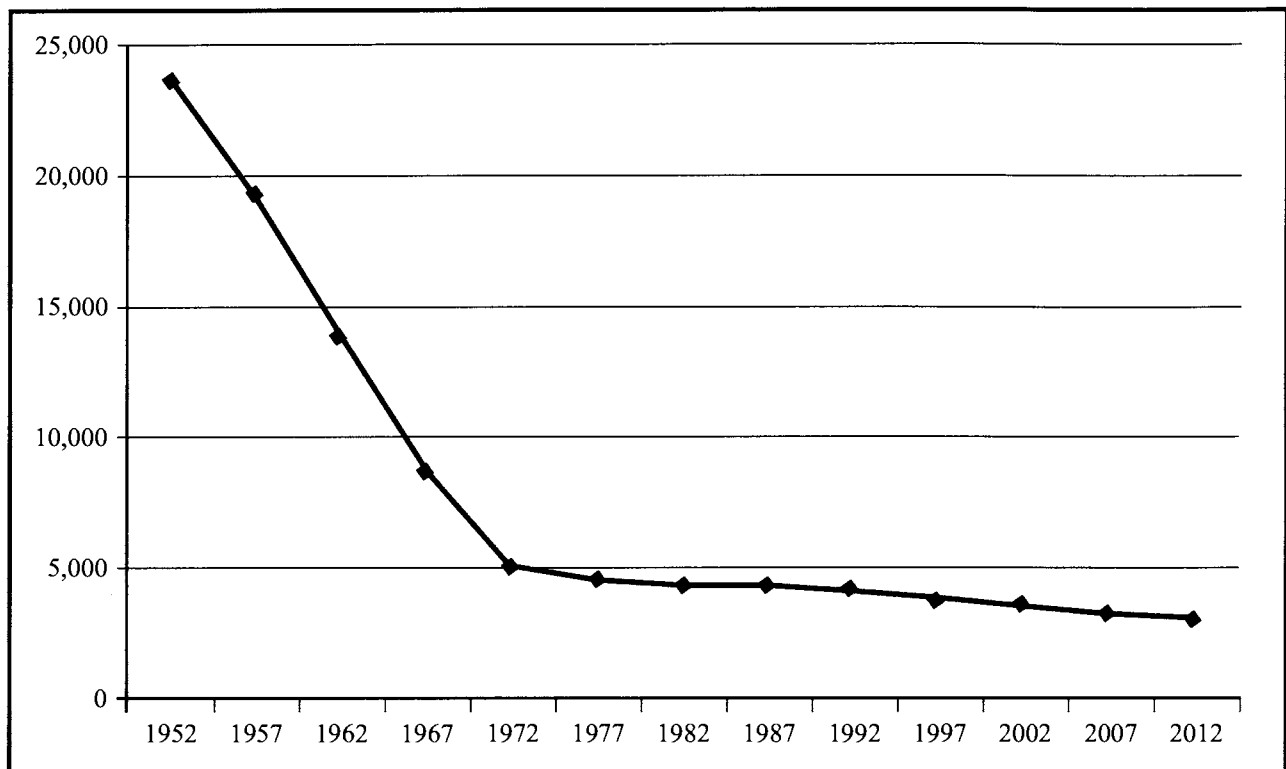


Figure 1. School districts in the Great Plains states from the census of governments, 1952–2012. Source: U.S. Census Bureau–CoG 2012.

### EDUCATED DEMOGRAPHICS OF THE GREAT PLAINS: THE DYNAMICS

The process of urbanization, in particular the movement of people from nonmetropolitan to metropolitan areas, especially influences the structure of education systems and schools in rural communities. Obvious outcomes from urbanization include a decrease in the size of the school-age population, declining educational resources within rural communities, and fewer schools and educational opportunities for rural residents. Other more subtle, yet important, results of population shifts in rural regions contain the end products of out-migration of workforce-age residents because of the lack of employment opportunities: an older population base with fixed retirement incomes, less direct connections to school-age children, and fewer resources to support local schools.

The following identifies selected demographic changes and examines their impact on the delivery of educational services to rural children in the Great Plains.

#### School Consolidation and Mergers

Population losses in rural counties in the Great Plains in the past few decades transformed the administration and

delivery of educational services in a number of ways, such as hastening and accelerating mergers of school districts. Although many factors contributed to school consolidation, demographic shifts can be identified as a critical influence. The Census of Governments in 1952 showed nearly 23,500 school districts in the 10-state region; in 2012 there were only about 3,200 districts. School consolidation occurred in waves, as Figure 1 (U.S. Census Bureau–CoG 2012) demonstrates. In 1972 there were 5,049 school districts in the Great Plains states, a decrease of 79% from 1952, and from 1972 to 2012 a 37% decrease. According to the National Center for Education Statistics the 3,200 school districts in the Great Plains states are predominantly (74.5%) rural (Provasnik et al. 2007, 7). Since these districts typically have fewer students, they account for only 40.2% of the students in these states.

Rural school consolidation often created operational efficiencies and increased educational opportunities and resources for many larger districts, but negative externalities or collateral damage to rural communities also resulted “by rupturing the connection between the school and its place in the local community” (Blauwkamp et al. 2011, 2–3). Schools serve as social and economic anchors to rural communities, providing a sense of shared identity

to local residents, and their loss through consolidation can be especially painful. Various forms of social capital link schools and their buildings to rural communities and their vitality. This school-community connection is critical because “residents need a place to permit social interaction. . . . This is why community buildings, recreational center and other public buildings (e.g. schools) are so critical to the development of communities” (Green and Haines 2012, 151). Demographic factors continue to influence rural schools and the communities where they are located.

Table 2 describes some of the key population statistics distinguishing metropolitan and nonmetropolitan (defined as rural in this study) areas of the Great Plains (where available) from the United States that likely affect rural education. These demographics include rural population share and loss, minority population, dependency population, poverty measures, and educational levels.

#### Rural Population Share and Loss

The rural population of the Great Plains constitutes a higher relative proportion of the total population as compared to the United States in general. According to the 2010 census, nonmetropolitan or rural population of the Great Plains states totaled more than 9.2 million persons, representing 21.4% of the population of these 10 states. In contrast, the nonmetropolitan population of the United States accounted for just 16.4% of the total population.

Counties in the Great Plains states lose population at a rate greater than the national average. Counties serve as the foundation for tracking changes in Core Based Statistical Areas (metropolitan and micropolitan). The 2010 census revealed that 47.6% of the counties in Great Plains states lost population between 2000 and 2010. Moreover, 16.2% of the counties in the Great Plains lost 10% or more of their population. For all of the United States, 34.9% of the counties lost population, and 6.9% of the counties saw population losses of 10% or more. Although all of the population losses at the county level are not necessarily rural or nonmetropolitan at the U.S. level, that is generally the case for the Great Plains states. For a majority of the counties in the Great Plains region “the census year of maximum population occurred before 1950 and in some cases, before 1900” (Wilson 2009, 9).

#### Minority Population Growth

Despite the fact that nearly half of the Great Plains counties lost population between 2000 and 2010, overall the 10 states in the region recorded a 16.2% increase in numbers

of people. As Table 2 reveals, much of this growth can likely be attributed to a rapid increase in the minority population. The minority population of the Great Plains states grew by 36.9%, while the white, non-Hispanic population was up by only 4.1%. This relative expansion in the minority population was particularly noticeable in the school-age and younger population. Between 2000 and 2010 the population under 18 years was up 11.3% in the Plains states, but the number of white, non-Hispanic children fell 7.6% while the number of minority children grew by 33.1%. As a percentage minority children now represent a majority—or 55.6%—of all children under the age of 18 in the Great Plains, higher than the U.S. percentage of 46.5%.

The growth in the minority population in the Great Plains, of course, has significant implications for the operation of both metropolitan and nonmetropolitan schools systems. In Nebraska, for instance, from 2000 to 2010 the minority population grew faster in the nonmetro areas than the metro areas (54.1% versus 49.3%). The white, non-Hispanic population decreased by 6.8% in nonmetro areas during the same time period (U.S. Census Bureau 2002, 2013). Hispanics account for the vast majority of the nonmetro minority population growth in Nebraska.

#### The Elderly and Dependency Population Growth

Another phenomenon in the Great Plains population dynamics that it shares with the United States is the increase in the elderly. Older populations have less direct connections to school-age children, and often live on fixed incomes. Table 2 shows that as a percent of the total population, the Great Plains mirrors U.S. rates. However, the growth of the elderly population in the Great Plains nearly doubles the size of the growth rate for children under the age of 18 (20.8% versus 11.3%).

Combining the percentage of the population 65 years or older and the population under 18 years allows for the calculation of a dependency ratio. This ratio includes those typically not in the labor force (the dependent part) and those typically in the labor force (the productive part). In 2010 the dependency ratio for the Great Plains states was 60.2—meaning that there were 60.2 persons under 18 years or 65 or older for every 100 persons between the ages of 18 and 64 years. The Great Plains dependency ratio exceeds the national ratio of 58.9. These ratios will likely grow as the older population increases in this region of the United States.

Although the 2010 census showed a median age in the

TABLE 2. SELECTED POPULATION CHARACTERISTICS OF  
THE METROPOLITAN AND NONMETROPOLITAN UNITED STATES AND GREAT PLAINS STATES

	U.S. total	Metro	Nonmetro	G. P. Total	Metro	Nonmetro
<b>Population (2010 census)</b>						
Number	306,603,772	256,333,443	50,270,329	43,147,981	33,933,072	9,214,909
Percent	100.0	83.6	16.4	100.0	78.6	21.4
<b>Counties (2000 and 2010 census)</b>						
Number	3,137				823	
Percent with loss	34.9				47.6	
Percent with loss of 10% or more	6.9				16.2	
<b>Minority population (2000 and 2010 census)</b>						
Percent change in total population	9.7				16.2	
Percent change in white, non-Hispanic population	1.2				4.1	
Percent change in minority population	28.8				36.9	
Minority population as a percent of total population (2010)	36.3				43.5	
<b>Population under 18 Years (2000 and 2010 census)</b>						
Percent change in total population under 18	2.6				11.3	
Under 18 as a percent of total population (2010)	24.0				26.2	
Percent change in minority population under 18	21.9				33.1	
Minority population as a percent of total population under 18 (2010)	46.5				55.6	
<b>Population 65 years or older (2000 and 2010 census)</b>						
Percent change in total population 65 or older	15.1				20.8	
65 or older as a percent of total population (2010)	13.0	12.4	16.1	13.1	11.7	15.6
<b>Dependency ratio (2010 census)</b>						
	58.9				60.2	
<b>Median age (2010 census)</b>						
	37.2	36.6	40.3	36.5	35.1	39.1
<b>Poverty (2007–11 ACS)</b>						
Poverty rate for all persons	14.3	13.8	17.0	14.0	13.2	15.2
Poverty rate for children under 18 years	20.0	19.2	24.0	18.9	17.4	20.9
<b>Education (2007–11 ACS)</b>						
High school graduate or higher (percent of population aged 25 years or older)	85.4	85.9	83.0	88.2	89.4	86.1
Bachelor's degree or higher (percent of population aged 25 years or older)	28.2	30.3	17.7	27.3	30.5	21.6

Sources: U.S. Census Bureau 2012, 2013.

Great Plains states averaging 36.5 years, slightly less than the U.S. average of 37.2 years, Table 2 shows nonmetropolitan areas older than the metropolitan areas. Nonmetro areas recorded a median age of 39.1 years compared to metro areas with an average median age of 35.1 years. In addition an average of 15.6% of the nonmetro population in the region was 65 years or older, while in the metro areas the 65 or older population averaged 11.7% of the total population—a little less than, but comparable to, the national averages in 2010. However, it should be noted that the Great Plains from 2000 to 2010 experienced a higher percentage increase in the total population 65 and older than the nation as a whole (20.8% versus 15.1%).

### Poverty Measures

Regardless of how it is measured, poverty in the Great Plains is less than that for the United States as a whole. During the 2007 to 2011 time period, the poverty rate for all persons was 14.3% at the national level and 14.0% for the Great Plains states. However, it is important to note that in both instances the poverty rate in nonmetropolitan areas exceeded that in metropolitan areas. Poverty in the nonmetropolitan Great Plains was 15.2% compared to 13.2% for metropolitan areas. A similar pattern existed for children less than 18 years. The child poverty rate in the Great Plains was 18.9% and compared favorably to the national rate of 20.0%. Within the Great Plains states, however, the child poverty rate was higher for nonmetropolitan counties (20.9%) than for metropolitan counties (17.4%). Child poverty rates affect the effectiveness of the education process.

### Educational Levels

Another aspect of nonmetropolitan regions that lags metropolitan regions in both the Great Plains states and the nation is education. Nonmetropolitan areas register lower average levels of education. In the 2007 to 2011 time period 88.2% of the Great Plains population aged 25 years or older had at least a high school diploma. This breaks down into 89.4% for metropolitan areas and 86.1 percent for nonmetropolitan areas. The United States trails the Great Plains in the percentage of high school graduates; 85.4% of the U.S. population were high school graduates, with a metro rate of 85.9% and a nonmetro rate of 83.0%.

The percentage of the population in the Great Plains with bachelor's degrees or higher (27.3%) generally reflected U.S. rates (28.2%). As in the United States as a whole, metro rates in the Great Plains states exceeded

nonmetro rates. Table 2 shows that 21.6% of the population aged 25 years or older in nonmetropolitan areas had a bachelor's degree or higher compared with 30.5% in metropolitan areas.

However, it needs to be noted that the percent of the population in the nonmetro area in the Great Plains with a bachelor's degree or higher exceeds that of the nonmetro United States (21.6% versus 17.7%). That is an important difference in the rural Great Plains. Research shows that the education level of parents will affect their expectations of the educational achievement of their children (Provasnik et al. 2007, 7). In other words, parents with a college degree will probably want their children to attain the same level of education. There is likelihood, then, that their children will get college degrees and seek employment, thus affecting population movement. The lack of high-quality employment opportunities in rural areas will influence their move to metropolitan areas, affecting the population of the nonmetro Great Plains.

### NEBRASKA: A CASE STUDY OF THE GREAT PLAINS

The population of the 10 states within the boundaries of the Great Plains, as defined by the U.S. Census Bureau, grew by 102.3% from 1950 to 2007 (Wilson 2009, 5). The growth was not evenly distributed. Colorado within the Great Plains grew by 227.3% during that time, much of it likely due to the growth of the Denver-Aurora-Bloomfield, Colorado, MSA. During the same time period Nebraska lost 7.2% of its Great Plains population—more than any other state in the region. Although Nebraska increased its overall population by 33.9%, its population in the Great Plains portion decreased by almost 46,000. Nebraska's growth, then, occurred primarily in the metropolitan areas that lie outside the Great Plains.

In all of Nebraska's nonmetropolitan population—not just the rural Great Plains counties mentioned above—there was a loss of nearly 76,600 persons between 1950 and 2010 (a 9.2% decline). This compares with an increase of more than 577,000 persons (116.9%) in the state's metropolitan counties. There are two interrelated components of population change that must be considered when looking at population change: net migration and the difference between births and deaths. During this period the population decline in nonmetropolitan Nebraska was due to out-migration, particularly of young adults. Even though births exceeded deaths, this increase was insufficient to offset the loss from out-migration.

As a result of out-migration, not only were there fewer



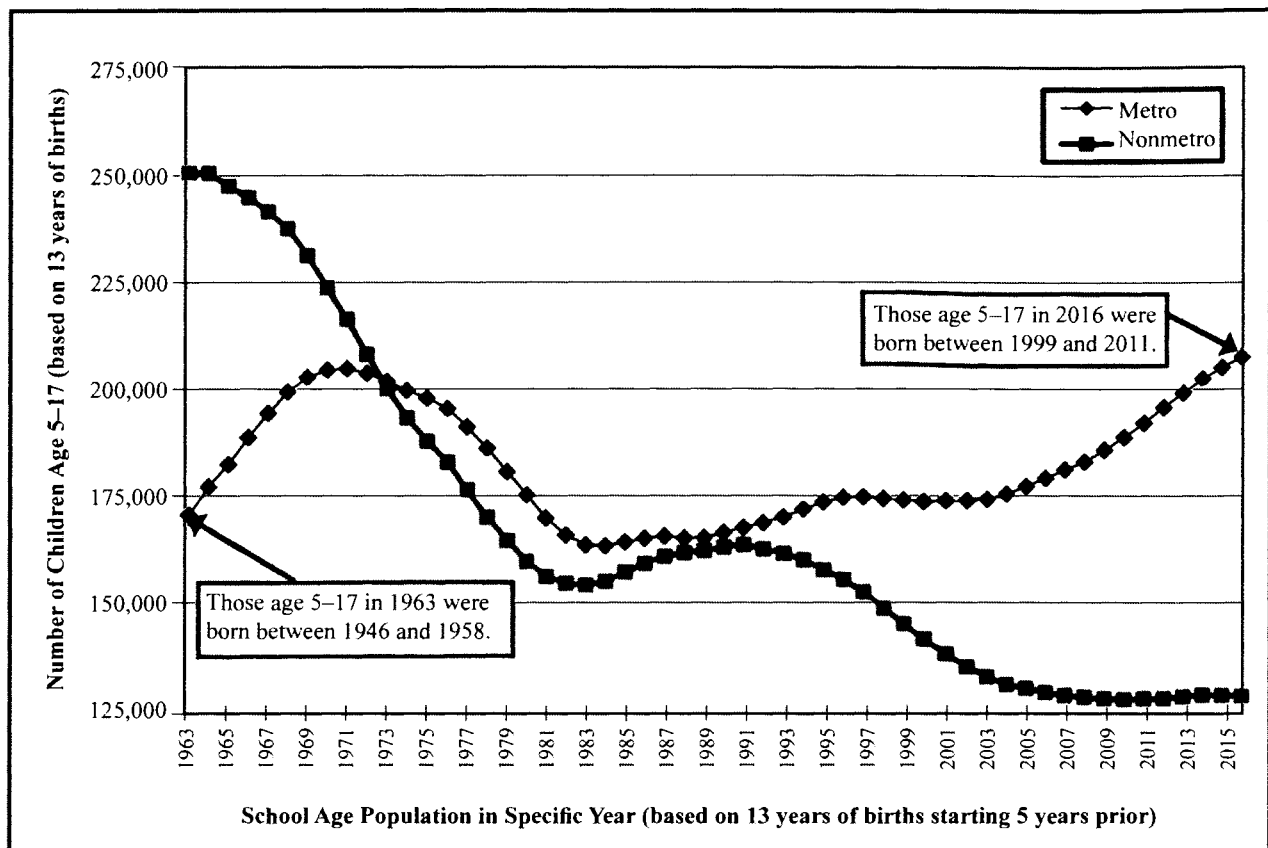


Figure 2. Potential school-aged population (5-17 years) based on 13-year periods of births to residents of metro and nonmetro Nebraska counties. School-aged population is based on births alone, migration factors are excluded. Source: Nebraska Department of Health and Human Services, 2013.

people, but the loss of young adults also had implications on the number of children. When a young adult leaves an area, that area loses not only the person but also the potential for additional children. Figure 2 illustrates this impact. Between 1946 and 1958 there were about 250,000 children born in nonmetro Nebraska. Without adjusting for mortality and migration, this implies that there potentially would have been 250,000 children of school age (5 to 17 years) in 1963. During the next 20 years (1959 to 1978) births plummeted (likely as a result of out-migration of young adults in the 1950s and 1960s), and there was a steady decline in the number of potential school-age children. In 1983, based on births alone, the number of potential school-age children in nonmetropolitan Nebraska fell to 150,000, a drop of nearly 100,000 children. Although births picked up in the 1980s as a result of the large number of baby boomers having children, the number of births began to decline in the 1990s, and nonmetropolitan Nebraska faces the prospects of a continued decline in the number of school-age children. By 2010 the number of potential school-age children had fallen to slightly above

125,000, and it is likely to stay there for the next few years. This number is half of what it had been at its peak in 1963.

In contrast, the number of school-age children (based on births) in metropolitan Nebraska has continued to grow. In 1963 there were approximately 80,000 more potential school-age children in nonmetro Nebraska than in metro Nebraska. By 2016 the situation will have reversed, and there are likely to be about 80,000 more potential school-age children in metro Nebraska than in nonmetro Nebraska.

In addition to factors discussed earlier, this declining number of births and children in nonmetropolitan Nebraska has had a direct impact on the number of school districts in the state. In 1952 Nebraska reported 6,392 school districts, the most in the Great Plains states, accounting for more than one-fourth of all the Great Plains school districts. As in the rest of the region, by 1972 the number of school districts in Nebraska reported a substantial decline, but Nebraska still retained the largest number of districts and accounted for about one-fourth of all of the Great Plains school districts. In contrast to dis-

TABLE 3. NUMBER OF SCHOOL DISTRICTS IN THE GREAT PLAINS STATES: 1952, 1972, 1992, AND 2012

State	1952	1972	1992	2012
United States	67,346	15,781	14,422	12,884
Great Plains states	23,496	5,049	4,148	3,194
Colorado	1,352	188	180	180
Kansas	3,984	331	324	306
Montana	1,287	552	537	321
Nebraska	6,392	1,374	797	272
New Mexico	106	89	94	96
North Dakota	2,079	386	275	183
Oklahoma	2,100	657	605	550
South Dakota	3,399	228	180	152
Texas	2,479	1,174	1,100	1,079
Wyoming	318	70	56	55

Source: U.S. Census Bureau—CoG 2012.

tricts in the Plains states, however, for the next 40 years Nebraska's school districts continued to consolidate, and by 2012 Nebraska no longer was among the leaders in the number of school districts in the Great Plains; it accounted for slightly more than 8% of the school districts.

## FINDINGS

We examined population demographics influencing the foundation, operation, and governance of educational systems in rural communities in the Great Plains region, including Nebraska as a case study. We asked what population shifts and demographic factors have had an effect on, and will continue to influence the foundation, operation, and governance of rural schools in the Great Plains. The answers and findings are not encouraging.

Although the downward spiral of the rural population in the 21st century does not mirror the drop from 1950 to 1970 (see Table 1), depopulation of the rural Great Plains lingers, affecting both the schools and the communities in which they are located. As student populations continue to diminish rural schools will persist in their search for operational efficiencies—including mergers and consolidations. However, much of the efficiencies from school consolidations likely have already been gained. The data show that fewer school consolidations are being made in the Great Plains.

A surge in the rural population in the Great Plains recorded from 1970 to 1990 reversed earlier losses, but deficits returned in 2010, albeit at a lower rate. Counties in this region exceed the national average in terms of population loss (see Table 2). The urbanization of the Great Plains continues to move people from rural communities

and areas to larger cities. In the near term the population base of the rural Great Plains has yet to be established. Losses will continue.

The aging of the rural population of the Great Plains will affect the future governance structure of public schools. Although the percentage of residents remaining in the nonmetro Great Plains aged 65 years or older reflects national averages, the growth rate of that age group surpasses that of the United States, according to Census Bureau information. The Nebraska case study confirms this trend. Seniors in rural communities may hold priorities pertaining to the support of public schools that differ from younger age groups. In addition, aging populations require a range of public services that compete with limited resources in rural communities.

Generalizations about the nature of rural students appear to be changing. One of the goals of this study was to examine general descriptions of school districts in the Great Plains in terms of changing population demographics. The study by National Center for Educational Statistics (Provasnik et al. 2007) stated that students in rural schools differed from urban schools; they tended to be white, a smaller proportion were at or near poverty, and fewer possessed limited English proficiency. Results from this study of the Great Plains challenge two of those generalizations. First, an examination of census data showed that the poverty rates for nonmetro school-age children exceed those of their counterparts in metro areas. Second, as Table 2 revealed, in the nonmetro Great Plains the growth and percentage of the minority population under the age of 18 exceeded that of the United States, effectively decreasing the percentage of white populations in rural schools. As Nebraska research shows, the growth in the

minority population in rural areas came from Hispanics, likely increasing the percentage of students with limited English proficiency.

### CONCLUSION AND RECOMMENDATIONS

This article shows a number of challenges to the governance of rural schools in the Great Plains resulting from changes in population demographics and the impacts of urbanization in particular. These difficulties also affect the vitality of rural communities. The hurdles for communities and schools include, but are not limited to, decreasing number of student age populations, competition for limited public resources, shortage of funds through traditional mechanisms, recruiting teachers and other professionals to stagnant communities, loss of local control of consolidated schools, meeting special education needs (for example, students with disabilities and students of English as second language), and the decline in community vitality as schools disappear as civic anchors. These challenges to the governance of rural schools in the Great Plains affect the overall economic health of communities as well.

To address the depopulation of its rural areas and meet the challenges of developing small communities, like many states in the Great Plains, the state of Nebraska adopted a range of policies and implemented a variety of programs to tackle rural development issues. For example, the state targets a significant portion of its Community Development Block Grant (CDBG) funds toward maintaining and improving the vitality of rural areas and small communities (Blair et al. 2008). CDBG funds support a variety of community infrastructure projects and job-creating economic development activities. Many of these projects support the creation and maintenance of civic anchors, such as community and senior centers. Schools often serve as foundations for community activities.

From a policy perspective, however, the link between rural education and community development appears, in general, to be less established in rural development policies. For example, research demonstrates that rural schools play an important role in economic development, and school consolidation must include consideration for its impact on regional development (Bryant 1989). Although CDBG does not directly fund school facilities, there are numerous examples of joint city-school collaboration projects, such as libraries and recreational facilities. The connection between schools, economic development, and job opportunities needs to be strength-

ened in rural development policy. Schools are part of the fabric and social capital of rural communities in the Great Plains.

This research has shown how demographic factors have transformed the governance of rural communities in the Great Plains, and will likely continue to do so. Although a number of significant obstacles face rural communities' ability to remain economically and socially viable, states in the Great Plains need to formulate rural development policies that incorporate not only businesses and government but also schools in their strategies.

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Students and teachers in front of sod schoolhouse, Custer County, Nebraska. 1891. Solomon Butcher photograph, Nebraska State Historical Society. Reprinted by permission.