



# **Nebraska Legislative Planning Committee**

## **2014 Report**

### ***Policy Briefs***

**Center for Public Affairs Research  
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**Policy Briefs**

**Nebraska Universal Service Funds**

Jerry Deichert, Director, Center for Public Affairs Research, University of Nebraska at Omaha

**The Impact of Changing Births on Nebraska's School Aged Children**

Jerry Deichert, Director, Center for Public Affairs Research, University of Nebraska at Omaha

**State and Local Government Debt**

Carol Ebdon, Regents/Foundation Professor, School of Public Administration, University of Nebraska at Omaha

Byungwoo Cho, Ph.D. Student, School of Public Administration, University of Nebraska at Omaha

**Local Government Pensions**

Carol Ebdon, Regents/Foundation Professor, School of Public Administration, University of Nebraska at Omaha

**Rural Transit**

Jerry Deichert, Director, Center for Public Affairs Research, University of Nebraska at Omaha

Valerie Lefler, Community Service Specialist, Center for Public Affairs Research, University of Nebraska at Omaha

Melanie Kiper, Community Service Specialist, Center for Public Affairs Research, University of Nebraska at Omaha

**Adults with Mental Health Disabilities and Their Caregivers in Nebraska: An Overview**

Karen Ann Rolf, PhD, Grace Abbott School of Social Work, University of Nebraska at Omaha

**Program Evaluation of the Avenue Scholars Foundation**

Jeanette Harder, PhD, STEPs, Grace Abbott School of Social Work, University of Nebraska at Omaha

Emily Nguyen, MSW, MPA, STEPs, Grace Abbott School of Social Work, University of Nebraska at Omaha

Christiana Bratiotis, PhD, STEPs, Grace Abbott School of Social Work, University of Nebraska at Omaha

Jef Johnston, PhD, Chief Operating Officer, Avenue Scholars Foundation

**Urban and Rural Food Deserts in Nebraska**

A. Bryce Hoflund, PhD, School of Public Administration, University of Nebraska at Omaha

**Pediatric Cancer in Nebraska: Policy Implications**

Don W. Coulter, MD, University of Nebraska Medical Center and Children's Hospital and Medical Center

Shinobu Watanabe-Galloway, PhD, College of Public Health, University of Nebraska Medical Center



# **Nebraska Legislative Planning Committee 2014 Report**

## **Policy Briefs**

### **Overview**

The Nebraska Legislature's Planning Committee was created in 2009 with the passage of LB 653 in order to help establish a process of long-term state planning with the Nebraska Legislature. The committee was created to assist state government in identifying emerging trends, assets and challenges of the state and the long-term implications of the decisions made by the Nebraska Legislature.

Efforts during the first two years of the committee focused on the development of a database. The goals and benchmarks included in the database were developed and approved by the Legislature's Planning Committee to present a common-sense and data-driven assessment of key areas important to Nebraskans' quality of life. This database was a joint initiative with the Nebraska Legislature's Planning Committee and the University of Nebraska at Omaha's College of Public Affairs and Community Service. The database was presented in a report that consisted of the data and summaries of the data for each of the nine categories of benchmarks established by the Planning Committee. Each year, the Planning Committee is in charge of updating the data for all benchmarks in each category. It is hoped that this will be of instrumental assistance to Legislators and staff as they craft and debate legislation each Session.

Beginning in 2012 the Planning Committee's report included Policy Briefs. These Policy Briefs address some of the issues that were identified when reviewing the indicators presented in the database. The purpose of the Policy Briefs is to identify and explore in greater depth issues identified by the evidence presented. The Policy Briefs do not recommend specific policies but rather describe options and considerations that relate to the issues.

The nine Policy Briefs contained in this report focus on a variety of areas: (1) two briefs focus on education, one on the impact of changing births on Nebraska's school aged children and the other a program evaluation of a scholarship and mentoring program; (2) three briefs focus on government finance, one on the use of government debt, one on concerns about local government pensions and one on the uses of Nebraska Universal Service Funds; (3) three briefs focus on health-related issues, one on adults with mental health disabilities and their caregivers, one on the impact of pediatric cancer on the survivors, their families and the state, and one on the impacts of food deserts and food insecurity; and (4) one brief focuses on the availability of public transit in rural Nebraska.

### **Nebraska Universal Service Funds**

In this brief, Jerry Deichert explains the source and uses of the Universal Service Funds (USF) and Nebraska Universal Service Fund (NUSF) as a way to meet the goal of providing comparable telecommunication service at a compatible rate in both urban and rural areas of the country.

The USF is funded by contributions of telecommunication providers based on a percentage of interstate and international end-user revenue. The NUSF is funded through a surcharge on all retail intrastate telecommunication services.

The USF funds four programs: High-Cost; Lifeline/Link Up; Schools and Libraries; and Rural Health Care. Since 1998, with the exception of Rural Health Care and Low Income Support, federal USF disbursements peaked in 2009 and have been declining; and the High Cost program is the largest

## Overview

program accounting for about 80% of the annual spending. Finally, Low Income support has changed little since 2001.

Nebraska ranked 13th nationally for per capita USF disbursements. Nebraska's per capita figure was higher than the national average. Specific programs for which Nebraska received higher per capita disbursements compared to the national average were the High Cost program and the Rural Health Care program. Nebraska was below the national average for the Lifeline program and the Schools and Libraries program.

Comparing Nebraska's USF (NUSF) to other states is challenging. Most states, including Nebraska, utilize their USFs to support High-Cost, Lifeline, Telecommunications Access, and Relay Service programs. The percentage assessed by each state varies widely along with the method of assessment. Nebraska's assessment percentage falls near the middle.

The NUSF is administered by the Nebraska Public Service Commission which has created five programs: Broadband Pilot Program; Rural Tele-Health Program; Nebraska Telephone Assistance Program; Dedicated Wireless Fund Program; and High Cost Program. Since FY 2000, NUSF collections have been relatively stable at between \$50 and \$60 million a year. Payments on the other hand have varied considerably from year-to-year.

## The Impact of Changing Births on Nebraska's School Aged Children

Jerry Deichert reviews the number of births in Nebraska between 1946 and 2013 by groups of counties based on metropolitan/non-metropolitan status and the size of the largest community in the county. Using these values, he estimates the potential number of school-aged children and how this varies among these groups of counties.

Between 2013 and 2018, based on historical births, he expects the state to add 11,492 school-aged children. The state's thirteen metropolitan counties will add 12,268 school-aged children. The state's eighty non-metropolitan counties will have 326 fewer school-aged children.

Overall, he projects that increases in school enrollment for the near future will be concentrated in school districts located in the Nebraska counties containing its largest cities. These counties have experienced more births during the 2000s. As a result, they should also have increases in school-aged children leading to increased enrollments. On the other hand, school districts located in counties where the largest city has fewer than 10,000 residents are likely to continue to lose enrollment as the number of school-aged children is likely to drop due to declining births.

As a result of these changes, there will be a need for additional buildings and teachers in the urban school districts and pressure to restructure or consolidate rural school districts.

## State and Local Government Debt

In this brief, Carol Ebdon finds that Nebraska's state debt levels are very low, presumably due to constitutional restrictions and that Nebraska's local government debt levels are relatively high, which appears primarily to be because the state has 100% public power.

She finds there are no serious problem with government debt in Nebraska at this time. However, there are concerns. One concern may be overlapping debts that increase tax and fee burdens on local residents and taxpayers. Another concern is that some local governments in Nebraska have Capital Improvement Plans but others do not. This type of planning can be especially important for monitoring

and financing maintenance needs, since deferred maintenance can end up costing more money over the long run. Local governments could be encouraged to develop long-term capital plans.

A final concern is that debt issuance incurs costs, and some methods and forms of debt are more costly than others. Nationally, interest rates have been consistently found to be lower with competitive versus negotiated sales, yet governments are increasingly using negotiated methods. While guaranteed debt typically has lower interest rates, use of non-guaranteed debt has increased.

She notes that additional study of these issues in Nebraska local governments could be helpful in understanding the efficiency of debt issuance in these jurisdictions, and whether training or policy changes may be beneficial.

## **Local Government Pensions**

This policy brief by Carol Ebdon reviews the differences between defined benefit plans and defined contribution plans, then reports on the results of a study of local government defined contribution plans in Nebraska.

In defined benefit plans, retirees receive a guaranteed benefit based on retirement age, average salary and years of service. The risk of defined benefit plans is borne by the pension system/sponsoring government. These plans are not portable.

In defined contribution plans, the amount of pension benefits received depends on the amount contributed by employees (and sometimes employers) and the investment returns accrued over time. The risk is borne by the employee/retiree. These plans are portable. Overall fees have been found to be lower with defined benefit plans than with defined contribution plans.

She found that many localities in Nebraska do not have their own pension plans. Some participate in the statewide plans, which are available for county employees and school districts. A few larger governments have defined benefit plans. The City of Omaha's defined benefit plans have significant unfunded liabilities, but steps have been taken to address this issue.

A number of local governments sponsor defined contribution plans. Defined contribution plans carry lower risk to governments but higher risks to employees and retirees who are dependent on their own investment choices and accumulated returns over time. Ultimately, private and public sector retirees who have insufficient retirement income from defined contribution plans could have a significant impact on the state's economy and public services.

She reports that based on results of a survey conducted of municipalities in the state there is reason to be concerned about defined contribution plans. These results showed issues related to knowledge of the plans, lack of education and oversight, and low participation rates. Many of these governments are relatively small, with officials who have limited time for monitoring these plans. Unfortunately, this can have a serious negative effect on retirement for employees in these plans.

She suggests it would be beneficial to look at ways in which administration of local government defined contribution plans could be improved. This could include studying rules and regulations used in other states, and methods to improve education of employees and employers. Since statewide plans are currently in existence for employees of counties and school districts, another option might be consideration of a new statewide defined contribution plan for local government employees who are not eligible for the existing state plans.

## **Rural Transit**

This policy brief by Jerry Deichert, Valerie Lefler and Melanie Kiper reports on some aspects of rural transit in Nebraska. Rural Nebraska is served by a variety of transportation services, including rural public transit, intercity bus service, Amtrak, and air service, as well as private vehicles. Despite this, many rural Nebraskans have no or limited access to transportation services.

Census data indicate that individuals in Nebraska who are low income, elderly, or disabled are less likely to have access to a vehicle to reach critical services such as medical care. Currently, many Nebraska residents lack access to community public transportation in any form, while intercity bus transportation is severely limited across the majority of the state.

They conclude that enhanced communication, coordination, and connectivity between transit providers crucial first step to address these concerns. In addition, promising mobility management strategies should also be explored and considered. Enhancements such as expanded on-demand transit service throughout the state, additional feeder routes to the state's larger metropolitan cities, and greater access through intercity bus routes are also critical steps to addressing the transportation needs of Nebraska's underserved populations.

## **Adults with Mental Health Disabilities and Their Caregivers in Nebraska: An Overview**

In this brief, Karen Rolf provides an overview of adult mental health in Nebraska. She first examines Nebraska population ratings on mentally unhealthy day compared to the United States. She found the average adult in Nebraska report fewer mentally unhealthy days than those the United States. In general, younger adults report more mentally unhealthy days than older adults. Fewer Nebraskans reported frequent mental distress than other Americans, and these reports of mental distress decline with age.

She then examines trends in Social Security Disability Insurance Program (SSDI) receipt for a mental health disability. Over the past two decades, the fraction of individuals receiving SSDI benefits a mental health condition risen dramatically in both Nebraska and the United States.

She then looks at adults with mental health issues living with parents and caregivers. She reports that about 3% of adults with mental health disabilities live with an older adult. About 10% of adults with mental health disabilities have a caregivers who live in their homes. Her research shows that caregivers for adults with mental health disabilities are less likely to be a parent or guardian and younger than caregivers of adult children with disabilities that are not mental health related.

An increased number of individuals are applying for SSDI under the diagnosis of mental health disability. Further exploration of this issue at the state level may benefit individuals with mental health disabilities who could participate in the economy and have a chance at mobility in the workforce.

In addition, because both the adults and caregivers in the homes of adults with a mental health disability are younger than other caregiving households in Nebraska Home and Community Based Waiver eligibility may need to be examined for adults with mental health disabilities and their caregivers.



## **Program Evaluation of the Avenue Scholars Foundation**

In this brief, Jeanette Harder, Emily Nguyen, Christiana Bratitotis and Jef Johnston report on quantitative and qualitative program evaluations of the Avenue Scholars Foundation, a program founded in 2008 which provides supportive relationships and positive role models to assist low income and low achieving high school students in Omaha in graduating from high school, obtaining postsecondary study, if applicable, and having career success. The foundation partners with private and public institutions and private businesses.

Their quantitative evaluation of the May 2013 cohort of participants found that of the 162 sophomores accepted into the program 137 remained active through high school and 100% of these graduated high school. This 100% graduation rate can be compared to the overall 78% graduation rate of low-income students in Nebraska. Of these, 94% began college as compared to 60% for the seven high schools participating in the program.

Their qualitative evaluation found that youth reported that Avenue Scholars was having a positive impact on their lives, and that relationships were the key: relationships with Avenue Scholars Talent Advisors, other Avenue Scholars youth, and with the program as a whole. Parents spoke of their high appreciation for how Avenue Scholars is helping their children with education and careers. Parents also spoke of their involvement in their children's education, both at home and at school, and expressed barriers of transportation, language, and homework assistance, and the barrier of finances for their children enrolling in college.

The researchers also conducted a cost-benefit analysis for the calculated 33 members of the 2012 cohort that may not have graduated without the program. They found overall net benefits were positive in both the short term and long term.

## **Urban and Rural Food Deserts in Nebraska**

A. Bryce Hoflund, in this policy brief, defines food deserts, discusses the characteristics of food deserts, and outlines some of the impacts of living in a food desert. The USDA defines food deserts as urban neighborhoods and rural towns without ready access to fresh, healthy, and affordable food. More than half of people living in food deserts are low income. The USDA also estimates that portions of 188 counties in the Plains states (including Nebraska) are food deserts.

Characteristics of food deserts are access, affordability and socio-economic issues. Access includes issues of distance, number and type of food vendors and transportation. Affordability includes issues of income and the fact that healthier food is often more expensive than low-nutrient food. Socio-economic issues include income, the rise of food insecurity, household circumstances, local government policies and economic conditions.

Researchers have attempted to measure the health impacts of living in a food desert and have found that higher rates of chronic diseases, such as diabetes and adult and childhood obesity, have been associated with lower access to affordable, healthy foods. Nebraska has experienced a slight increase in the occurrence of food insecurity since 2007.

She reports that Nebraska contains both urban and rural food deserts and that lack of public or private transportation options can reduce access to food. She suggests that if the trends of food insecurity, an aging population and depopulation continue to increase, Nebraska will face more food deserts and possible increases in health problems associated with food deserts. She recommends that more research should be conducted to determine the characteristics of food deserts and ways of addressing

## *Overview*

this issue and points out that sustainable food systems must be developed and that strengthening local food systems in food desert areas is highly dependent on building and maintaining community engagement.

### **Pediatric Cancer in Nebraska**

In this brief, Don Coulter and Shinobu Watanabe-Galloway address two key challenges facing the state of Nebraska: the increased incidence of pediatric tumors throughout the state and the impacts of the disease on the survivors, their families and the state.

In 2010, Nebraska ranked fifth in the country for the incidence rate of pediatric cancer. The incidence rates of pediatric cancer in Nebraska cancer have exceeded national incidence rates since 2007 and continue to increase. The cause of this increase is unknown. More investigation is needed to examine the patterns of childhood cancer in Nebraska over time. They warn that, as with all statistics involving rare diseases, the data should be interpreted cautiously especially for counties with small population size and that additional research should utilize advanced statistical methods for disease mapping to avoid methodological issues.

Almost 80% of children diagnosed with cancer will survive. However, the toll includes both financial and personal costs to the child and his or her family. The survivor often has lifelong chronic medical conditions which affect his or her education, future employment and ability to have a family. The survivor's family often is stressed about cost of treatment and travel, lost time at work and the impact of this on future employment. For patients and families that live in rural Nebraska traveling to Omaha can be a significant burden. All these factors may represent threats to the family that also could have impacts on the state.

They suggest that to plan effectively, more research about the specific needs of childhood cancer survivors and their families is needed. This information could help shape an early intervention program to aid in their overall success. They point out that these issues will need to be addressed by every state as an investment in their future and that Nebraska has the opportunity to be a leader for the nation in the development and implementation of such a program.

## Nebraska Universal Service Funds

Jerry Deichert<sup>1</sup>  
Center for Public Affairs Research  
University of Nebraska at Omaha  
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### Overview

In the Telecommunications Act of 1996, Congress specified that consumers in “rural, insular, and high-cost areas” should have access to telecommunication rates and services that are “reasonably comparable” to consumers in urban areas (Government Accounting Office, 2012). Therefore, the goal of universal service is to provide comparable service at compatible rates in both urban and rural areas of the country. To meet this goal, the United States Federal Communications Commission (FCC) created the Universal Service Fund (USF) in 1997. All telecommunications service providers and certain other providers of telecommunications must contribute to the federal USF based on a percentage of their interstate and international end-user telecommunications revenues. Although not required to, the service providers pass this charge on to customers (Federal Communications Commission, 2013).

The preservation and advancement of universal service goals is a joint enterprise between the states and the federal government. In 1997, the Nebraska Legislature passed legislation authorizing the Public Service Commission to create the Nebraska Universal Service Fund (NUSF). The goal of the NUSF is, in conjunction with federal universal service funds, to ensure that all Nebraskans have comparable access to telecommunications services at affordable prices (Nebraska Public Service Commission, 2013). The NUSF is funded through a surcharge on all retail intrastate telecommunications services in Nebraska.

### Access to Telephone Service in Nebraska

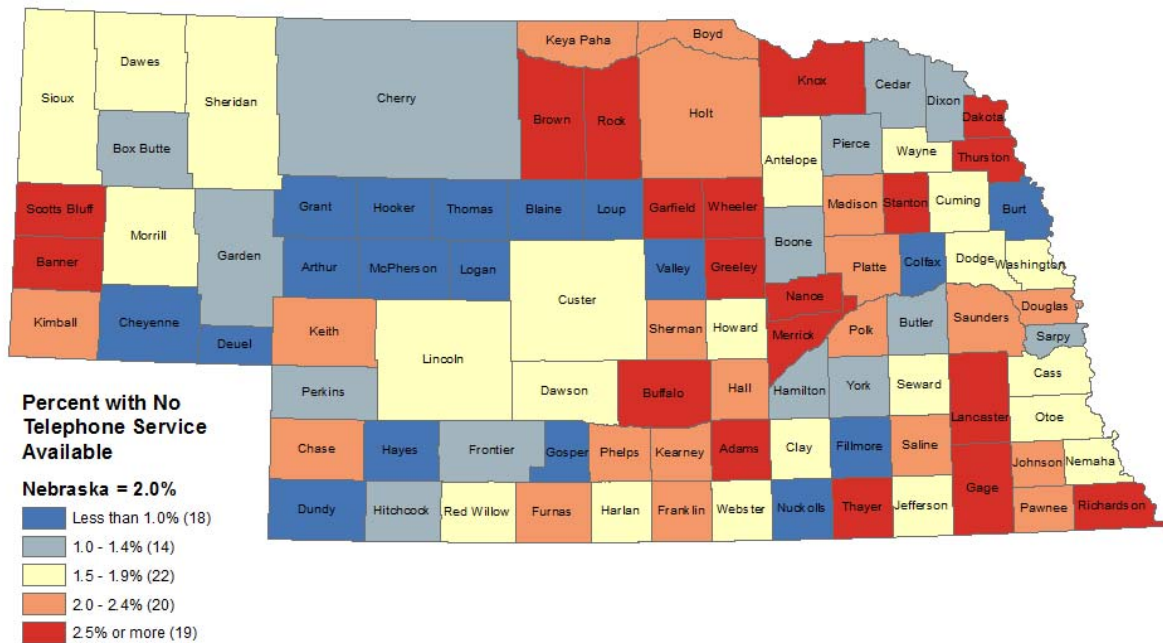
The Legislature’s Planning Committee 2013 Report showed that almost all of Nebraska’s and the nation’s households had access to telephone service (land line or cell phone). In 2012, Nebraska ranked 19th nationally and 4th among its neighbors in telephone service. In 2012, 97.6% of Nebraska households had telephone service. This means that 2.4% or an estimated 17,709 Nebraska households did not have telephone service.

Map 1 on the following page illustrates the variation of access to telephone service among Nebraska counties. In order to have more reliable estimates for less populated counties, the Census Bureau only releases county data that have been accumulated over a five-year period. Therefore, the information on the map is for the 2008 to 2012 period rather than for a single year. Looking at the map, in 19 counties, more than 2.5% of the households did not have access to telephone service. Thurston County reported the highest percentage of households with no telephone service available (6.3%). Other counties with more than 4% of their households with no available telephone service were: Banner (5.8%), Dakota (4.8%), Nance (4.7%), and Greeley (4.1%).

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<sup>1</sup> With assistance from Byungwoo Shine Cho, School of Public Administration, UNO.

**Map 1. Households with No Telephone Service Available as a Percentage of Total Households for Nebraska Counties: 2008-2012**



Source: U.S. Census Bureau, 2008-2012 American Community Survey 5-year Estimate; prepared by UNO Center for Public Affairs Research, July 2014

**Federal USF**

The largest source of funding for universal service in Nebraska is the federal USF. The federal USF pays for four programs. They are:

- **High-Cost.** This program ensures that consumers in all regions of the nation have access to telecommunications services at rates that are affordable and reasonably comparable to those in urban areas. According to the FCC's 2011 USF/ICC Transformation Order, High-Cost Support changed its name to the Connect America Fund, promoting the multi-purpose networks including broadband internet access as well as voice telephone service.
- **Lifeline/Link Up.** This program provides discounts on monthly service and initial telephone installation or activation fees for primary residences to income-eligible consumers.
- **Schools and Libraries.** This program makes discounts available to eligible schools and libraries for eligible telecommunications services, Internet access and internal connections so that schools and libraries may have access to affordable telecommunications and information services.
- **Rural Health Care.** This program helps link health care providers located in rural areas to urban medical centers so that patients living in rural America will have access to the same advanced diagnostic and other medical services that are enjoyed in urban communities. One of its main goals is to make telehealth services affordable.

Federal and state governments play a role in implementing the federal High Cost program. State regulatory commissions hold the primary responsibility to determine carrier eligibility for program participation (i.e., states designate eligibility status of carriers) and to annually certify that carriers will appropriately use High Cost program support.

Table 1 shows federal USF disbursements in Nebraska since 1998. In 2013, federal USF disbursements in Nebraska totaled \$88.7 million. Several patterns emerge when looking at the table. First, with the exception of Rural Health Care and Low Income Support, federal USF disbursements peaked in 2009 and have been declining. Second, the High Cost program is the largest program accounting for about 80% of the annual spending. Finally, Low Income support has changed little since 2001.

**Table 1. Federal Universal Service Fund Disbursements by Program for Nebraska: 1998 to 2013 (Unaudited, in Thousands of Dollars)**

Year	High Cost	Low Income Support*	Rural Health Care**	Schools and Libraries	Total
1998	\$19,974	\$473		\$4,948	\$25,395
1999	\$20,705	\$796	\$80	\$6,812	\$28,393
2000	\$24,097	\$1,360	\$265	\$6,111	\$31,833
2001	\$25,930	\$1,494	\$279	\$4,338	\$32,041
2002	\$36,205	\$1,673	\$573	\$5,992	\$44,443
2003	\$43,770	\$1,803	\$45	\$6,938	\$52,556
2004	\$47,039	\$2,148	\$19	\$7,218	\$56,424
2005	\$55,890	\$2,406	\$746	\$6,254	\$65,295
2006	\$81,771	\$2,520	\$1,132	\$7,108	\$92,532
2007	\$106,178	\$2,509	\$1,460	\$7,758	\$117,905
2008	\$113,689	\$2,344	\$2,058	\$9,248	\$127,339
2009	\$116,611	\$2,156	\$1,391	\$9,004	\$129,162
2010	\$88,657	\$1,874	\$1,612	\$10,647	\$102,790
2011	\$90,350	\$1,619	\$1,569	\$9,636	\$103,174
2012	\$86,434	\$1,384	\$2,640	\$11,149	\$101,607
2013	\$72,934	\$1,495	\$3,642	\$10,640	\$88,711

\* Includes lifeline, linkup, TLS, and PICC

\*\* Started in 1999; Includes RHC Pilot Program disbursements (2012-13)

- Notes: 1. Numbers may not add due to rounding.  
 2. 1998-2004: The amount committed in funding. Total is calculated, not provided.  
 3. 2005-13: Approved Disbursements by Program, Calendar Year.  
 4. Dollars are not adjusted for inflation.

Source: Universal Service Administrative Company (USAC) Annual Reports (2000-13)

Table 2 looks at per capita federal USF disbursements for Nebraska and its neighboring states for 2013. The values are ranked by per capita total disbursements. Given the rural nature of most of the region it should not be surprising that all of the neighboring states with the exception of Colorado received per capita disbursements higher than the national average. At \$47.48 in per capita total federal USF disbursements, Nebraska ranked 13th nationally. Nebraska’s per capita figure was more than \$20 higher than the national average of \$26.39. Specific programs for which Nebraska received higher per capita

disbursements compared to the national average were the High Cost program and the Rural Health Care program. Nebraska was below the national average for the Lifeline program and the Schools and Libraries program.

**Table 2. Federal Universal Service Funding Per Capita Disbursements by Program for Nebraska and Neighboring States: 2013 (Unaudited)**

	High Cost		Lifeline		Rural Health Health*		Schools and Libraries		Total 2013	
	Amount	Rank	Amount	Rank	Amount	Rank	Amount	Rank	Amount	Rank
United States	\$13.20		\$5.70		\$0.50		\$6.99		\$26.39	
North Dakota	\$132.3	2	\$1.84	42	\$1.32	7	\$5.54	28	\$141.06	2
South Dakota	\$86.74	3	\$1.10	46	\$1.19	10	\$5.41	31	\$94.43	5
Wyoming	\$80.81	5	\$0.28	50	\$1.12	14	\$7.07	17	\$89.28	6
Kansas	\$54.82	8	\$3.82	30	\$0.22	34	\$7.52	16	\$66.39	9
Iowa	\$43.43	9	\$2.63	38	\$0.41	26	\$4.88	35	\$51.34	12
<b>Nebraska</b>	<b>\$39.03</b>	<b>11</b>	<b>\$0.80</b>	<b>48</b>	<b>\$1.95</b>	<b>4</b>	<b>\$5.69</b>	<b>27</b>	<b>\$47.48</b>	<b>13</b>
Missouri	\$17.63	24	\$4.10	28	\$0.28	31	\$5.86	25	\$27.87	24
Minnesota	\$18.86	23	\$1.91	41	\$0.67	20	\$5.52	29	\$26.96	25
Colorado	\$14.38	26	\$1.07	47	\$0.92	17	\$4.68	38	\$21.05	32

\* Includes RHC Pilot Program disbursements

Sources: Universal Service Administrative Company (USAC), 2013 Annual Report and U.S. Census Bureau, 2013 Population Estimates. Calculations by Center for Public Affairs Research.

### State Universal Service Funds

Some states have their own USFs that provide subsidies for many of the same purposes as the federal USF. As mentioned above for Nebraska, state USF surcharges are applied on revenue from intrastate telecommunications services, while the federal USF applies to revenues from interstate services. However, states utilize these funds differently for various programs. Comparing Nebraska's USF (NUSF) to other states is challenging, but a study by Lichtenberg, Akyea, and Bernt in 2012 compares the state USFs. The list below is taken from the report and shows how different states use their funds to support various programs:

- High Cost Fund            Arizona, California, Colorado, Georgia, Idaho, Illinois, Indiana, Kansas, Louisiana, Maine, Nebraska, New York, Oregon, Pennsylvania, South Carolina, Texas, Utah, Vermont, Washington, Wisconsin, Wyoming
- Intrastate Access        Alaska, Georgia, Kansas, Maine, Michigan, New Mexico, Oklahoma, South  
Reductions/Reform      Carolina
- Broadband                California, Maine, Nebraska, West Virginia
- Lifeline                    Alaska, California, Colorado, Connecticut, District of Columbia, Idaho, Kansas, Kentucky, Maine, Missouri, Minnesota, Nebraska, New Mexico, New York,

	North Carolina, Oklahoma, Oregon, South Carolina, Texas, Utah, Vermont, Washington, Wisconsin
Linkup	Idaho, Illinois, Maine, New York, Washington, Wisconsin
Schools/Libraries	California, Kansas, Maine, Oklahoma, Rhode Island, Wisconsin
Telecommunications Access (equipment) Program	California, Georgia, Iowa, Kansas, Kentucky, Maine, Missouri, Minnesota, Nebraska, New Hampshire, New York, Oregon, Rhode Island, South Carolina, South Dakota, Texas, Vermont, Wisconsin
Relay Service	California, Colorado, Connecticut, Georgia, District of Columbia, Illinois, Iowa, Kansas, Kentucky, Maine, Maryland, Mississippi, Missouri, Minnesota, Nebraska, New Hampshire, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Rhode Island, South Carolina, South Dakota, Texas, Utah, Vermont, Washington, West Virginia, Wisconsin, Wyoming
Other	Alaska, Arizona, Maine, Nebraska, New Hampshire, New York, Oklahoma, Rhode Island, Texas, Vermont, West Virginia, Wisconsin, Wyoming

Based on the table, most states utilize their USFs to support High-Cost, Lifeline, Telecommunications Access, and Relay Service programs. There are only four states that use their funds to promote Broadband services and six states to support Linkup and Schools/Libraries programs. Some states use their funds for other purposes, such as Telemedicine or Telehealth, E911, and Public Interest Payphone Support.

The percentage assessed by each state varies widely along with the method of assessment. Nebraska's assessment percentage falls near the middle. Alaska has the highest universal service contribution rate of 9.3%, with Oregon at the second highest assessment rate of 8.5%. Kansas has an assessment rate of 6.42%, similar to Nebraska's 6.95% assessment rate. Texas has an assessment rate of 4.3% of revenues (Nebraska Public Service Commission, 2013). The average rate for all states is about 2.4% (Lichtenberg et al., 2012).

### **The Nebraska Universal Service Fund**

The Nebraska Universal Service Fund (NUSF) is administered by the Nebraska Public Service Commission. As detailed in its 2013 Annual Report to the Legislature, the commission has created the following five programs within the NUSF (Nebraska Public Service Commission, 2013):

1. Broadband Pilot Program, which supports the provision of broadband telecommunications infrastructure in unserved and underserved areas of the state.
2. Rural Tele-Health Program, which supports the provision of telecommunications services to a statewide Tele-Health network.
3. Nebraska Telephone Assistance Program (NTAP), which was formerly known as the Lifeline/Link-Up Program. This program provides discounted rates to qualifying low-income Nebraskans.
4. Dedicated Wireless Fund Program, which supports the provision of wireless telecommunications infrastructure in rural unserved and underserved areas of the State.
5. High Cost Program, which seeks to make telecommunications and information rates generally affordable and comparable across Nebraska.

The NUSF surcharge is 6.95% of in-state retail telecommunications revenue. Interstate and Internet services are not subject to the NUSF surcharge. The Commission determines assessable services through the use of FCC federal universal service definitions in order to reduce the amount of duplicate administrative work for telecommunications providers.

**Table 3. Nebraska Universal Service Fund Collections and Payments (\$ Millions): FY2000 to FY 2013**

Fiscal Year	Collections	Payments to Providers
2000	\$49.6	\$24.6
2001	\$56.3	\$36.6
2002	\$58.9	\$46.6
2003	\$59.2	\$56.2
2004	\$64.1	\$68.9
2005	\$61.1	\$68.4
2006	\$53.4	\$79.5
2007	\$51.3	\$77.1
2008	\$51.2	\$56.6
2009	\$55.6	\$49.1
2010	\$50.2	\$53.4
2011	\$53.9	\$48.3
2012	\$53.9	\$46.2
2013	\$51.2	\$48.6

Source: Nebraska Public Service Commission, Annual Reports, 2000 to 2013.

Table 3 shows that during FY 2013, the NUSF collected \$51.2 million, and distributed \$48.6 million to telecommunication providers in Nebraska. Since FY 2000, NUSF collections have been relatively stable at between \$50 million and \$60 million a year. Payments on the other hand have varied considerably from year-to-year.

The High Cost Program is to help Nebraskan consumers who live in rural or high-cost areas to have affordable and quality access to telecommunications services comparable to those of urban areas. The High Cost Program has the highest fund collected among the aforementioned five programs. In FY 2012, the state collected about \$42.5 million for this High Cost fund (Lichtenberg et al., 2012).

Established in November 2011, the Nebraska Broadband Pilot Program (NEBP) provides grants to support infrastructure improvement projects for broadband services, as well as to expand accessibility and improve quality of the services. Nebraska is one of the only four states that use the USF to support Broadband services. The other states include California, Maine, and West Virginia (Lichtenberg et al., 2012). Given these four states, Nebraska provides the second highest amount of funding for Broadband; the state allocates about \$4 million to support the services in FY 2012 (Lichtenberg et al., 2012).

The Nebraska Telephone Assistance Program (NTAP) or lifeline program assists qualified low-income individuals with getting and keeping telephone services by lowering their monthly service rates up to \$12.75 per month, which consists of \$9.25 in federal support and \$3.50 in NUSF support. NTAP assistance is available for a landline or wireless telephone service. (Nebraska Public Service Commission, 2013). The NTAP qualified individuals are such as those participating in Medicaid, Supplemental Nutrition Assistance Program (SNAP), Federal Public Housing Assistance, Supplemental Security Income



(SSI), and people whose income is at or below 135 percent of poverty level. The discount is directly credited through telecommunication providers and is shown in the bill statements of applicants.

The Nebraska Statewide Tele-Health Network (NSTN) “connects 68 rural and critical access hospitals across the state to hub hospitals in Grand Island, Kearney, Lincoln, Norfolk, North Platte, Omaha, and Scottsbluff. (Nebraska Public Service Commission, 2013). The NUSF provides funding to eligible hospitals in this program. In FY 2012, the Commission provided more than \$570,000 in funding for the NSTN.

The Dedicated Wireless Fund Program helps support access to wireless service in rural areas. Moreover, the program supports the provision and expansion of broadband service by providing financial assistance to wireless carriers for the construction of essential infrastructure, such as cell towers or other basic equipment in rural and sparsely populated areas (Nebraska Public Service Commission, 2013).

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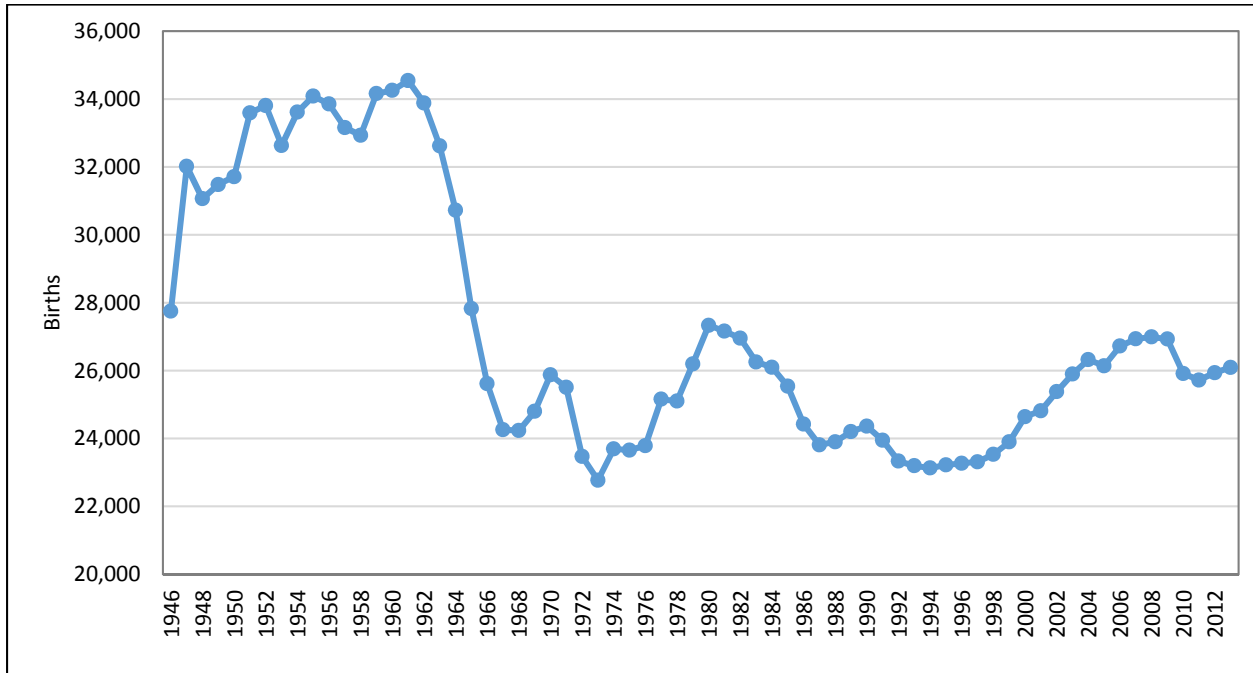
# The Impact of Changing Births on Nebraska's School Aged Children

Jerry Deichert<sup>1</sup>  
Center for Public Affairs Research  
University of Nebraska at Omaha  
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## Overview

The number of school aged children and subsequently school enrollment is determined in large part on the number of births that occurred to residents of an area during the prior seventeen years. This report will review the number of births in Nebraska between 1946 and 2013 by groups of counties based on metropolitan/non-metropolitan status and the size of the largest community in the county. Using these values, we can estimate the potential number of school-aged children and how this varies among these groups of counties<sup>2</sup>.

**Figure 1. Births for Nebraska, 1946 to 2013**

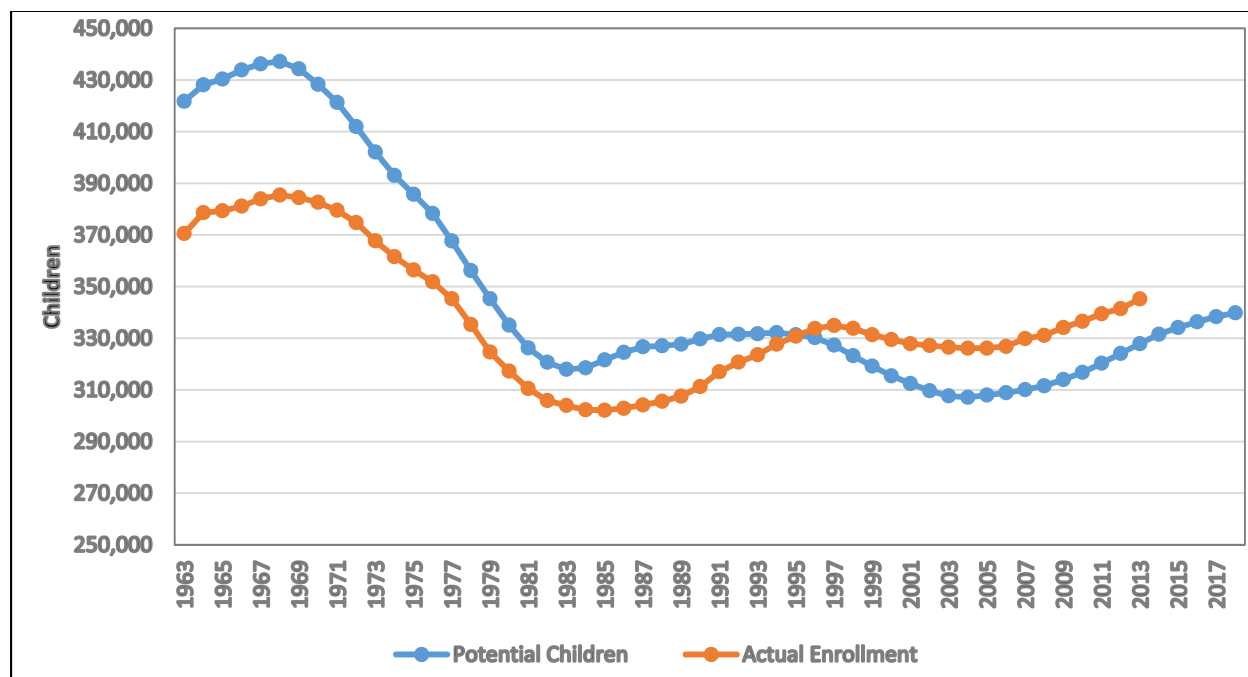


Source: Vital Statistics Reports, Nebraska Department of Health and Human Services

<sup>1</sup> With assistance from Byungwoo Shine Cho, School of Public Administration, UNO.

<sup>2</sup> For a map illustrating these areas, see page 10.

**Figure 2. Estimated Number of Children Aged 5 to 17 Years Based on Births and Actual K-12 Enrollment for Nebraska 1963 to 2013/2018**



Source: Vital Statistics Reports, Nebraska Department of Health and Human Services

### Nebraska Births

Figure 1 on the previous page presents Nebraska births annually for the years 1946 to 2013. This figure graphically illustrates the size of the baby boom, as between 30,000 and 34,000 babies were born every year between 1947 and 1964. This was followed by an annual drop in births of about 9,000 to 10,000. This period is referred to as the Baby Bust or Generation X. As the Baby Boom Generation reached child bearing ages in the late 1970s and 1980s, births again increased but did not approach the levels of the 1950s and 1960s. This period of relatively high numbers of births lasted shorter in Nebraska than nationally because during the 1980s Nebraska experienced a sizable outmigration of young adults in their peak child bearing years.

Beginning in the late 1990s, Nebraska began to see a resurgence in births. This was due not to an overall increase in fertility rates but because of two other factors: 1) The children of the baby boom were now in their child bearing years, and 2) Nebraska had experienced immigration of foreign-born young adults who were in their peak child-bearing years and who also had somewhat higher fertility rates. With the recession of 2008, births again dropped off, but they have picked up in recent years.

### School Aged Children and Enrollment

Figure 2 estimates the number of children aged 5 to 17 years based solely on the accumulation of the number of births over a thirteen-year period. For example, the number of 5 to 17 year olds in 1963 would consist of the accumulation of the number of births from 1946 to 1958. Obviously, this does not account for mortality, nor does it adjust for the number of children who moved into or out of an area.

Looking at Figure 2, it can be seen the estimated number of school-aged children peaked in 1968 at just over 437,000 children. By 1983, the number had fallen to just under 318,000 children (about a 25 percent decline). The estimated number of children rebounded somewhat in the 1990s but again fell until it reached a low in 2004 of slightly more than 307,000 children. Since 2004, this age group has recorded a slow and steady increase. By 2018, this value will approach 340,000.

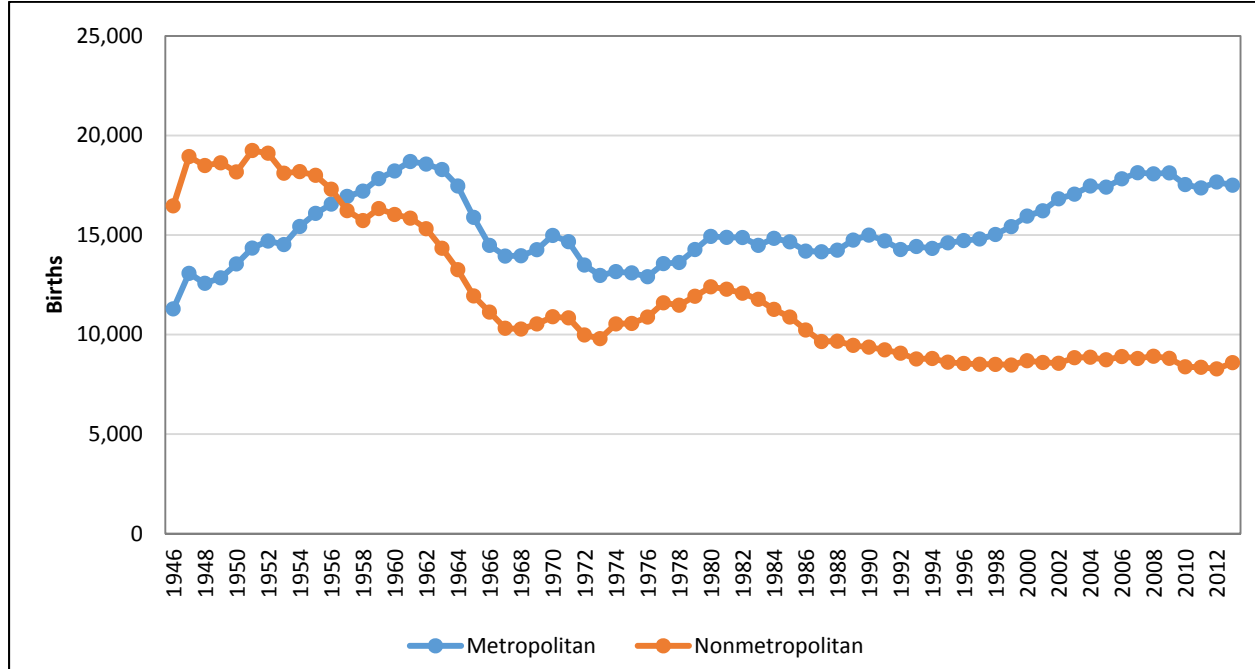
The question then becomes, “How is this estimated number of children related to actual enrollment?” To answer this question, we looked at enrollments between 1963 and 2013 and included them in Figure 2. Comparing enrollments to the estimated number of school-aged children, shows the general trends are the same, but until 1995 the estimated number of children was larger than enrollment, and since that time enrollment has been larger. There are likely many reasons for this discrepancy, but we know that prior to the mid-90s, Nebraska had an outmigration of young families. Since then, there has been an immigration of young families.

Focusing only on the estimated number of school-aged children, it appears that for the next five years Nebraska’s K-12 enrollment could increase an average of about 2,500 students a year. The next sections will look at how this change might be dispersed among the state’s counties.

**Births by County**

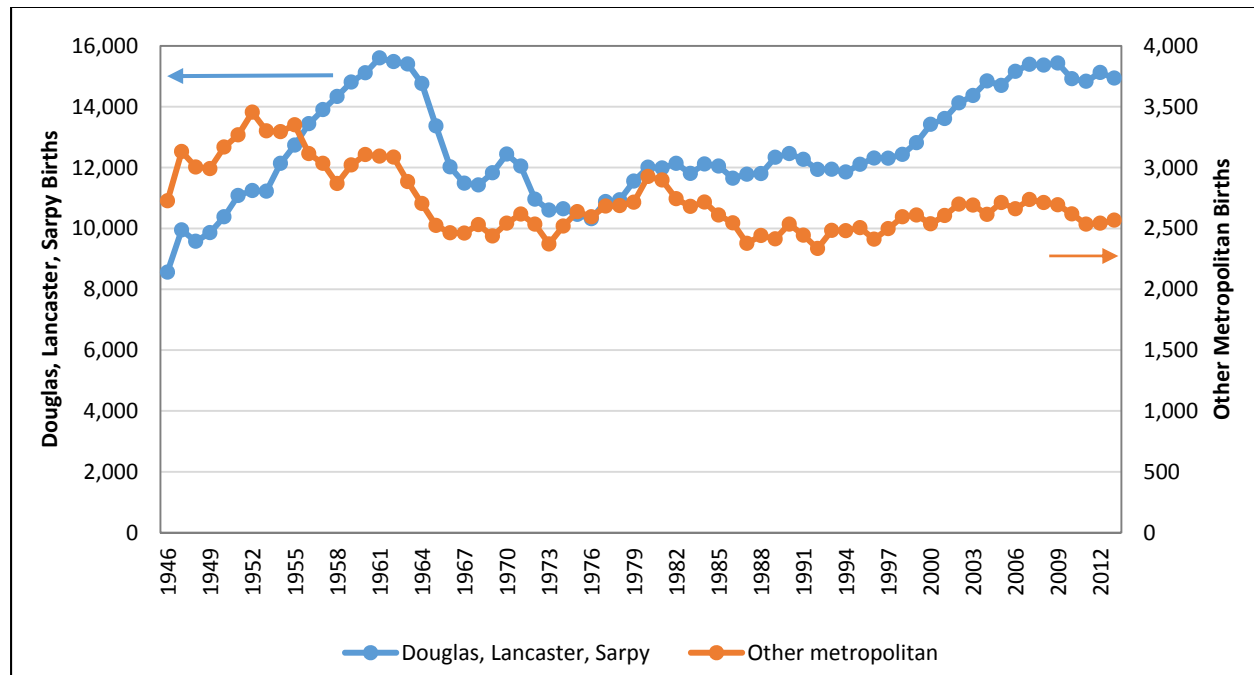
Figures 3 – 5 indicate the number of births for groups of counties based on metropolitan/non-metropolitan status and the size of the largest community in the county.

**Figure 3. Births for Nebraska Counties by Metropolitan and Non-metropolitan Status (2013 Definitions), 1946 to 2013**



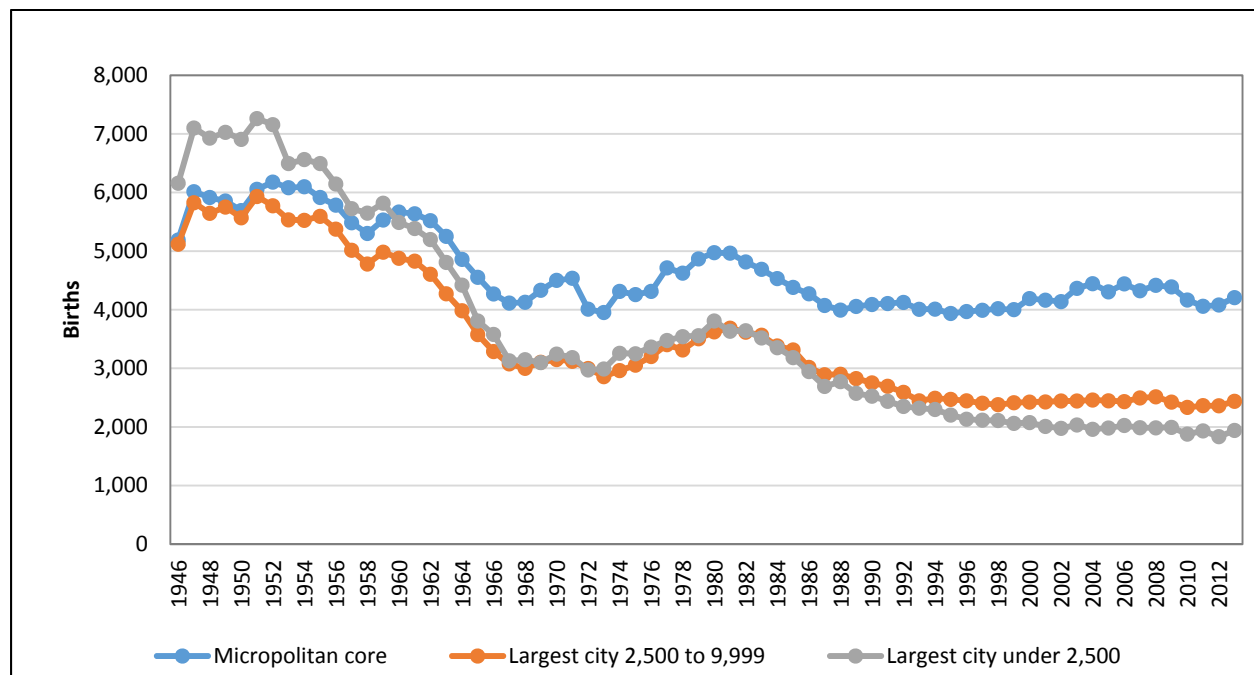
Source: Vital Statistics Reports, Nebraska Department of Health and Human Services

**Figure 4. Births for Nebraska Counties by Metropolitan Status (2013 Definitions), 1946 to 2013**



Source: Vital Statistics Reports, Nebraska Department of Health and Human Services

**Figure 5. Births for Nebraska Counties by Non-metropolitan Status (2013 Definitions), 1946 to 2013**



Source: Vital Statistics Reports, Nebraska Department of Health and Human Services

Figure 3 looks at births for metropolitan and non-metropolitan counties in Nebraska. Up until 1957, non-metropolitan Nebraska had more births than metropolitan Nebraska. Between then and 1980, the trend for the two groups was similar, and the difference was almost the same for each year. After 1980, however, metropolitan Nebraska has experienced a slow and steady increase until the most recent recession, while non-metropolitan Nebraska has experienced a slow and steady decline in the number of births. In 2013, there were 17,507 births to metropolitan residents, compared with 8,587 births to non-metropolitan residents.

Breaking metropolitan Nebraska into two groups (see Figure 4)—Douglas, Lancaster, and Sarpy Counties compared with the remainder of metropolitan counties—shows that nearly all of the growth in the metropolitan counties was in Douglas, Lancaster, and Sarpy Counties. Compared to 1980, these three counties have recorded about 3,000 more births, while the remaining metropolitan counties have about 350 fewer births. In comparing these three counties to the other groups of counties in Figures 4 and 5, it can be seen that they are the only ones with more births in 2013 than in 1980 and nearly as many as the baby boom peak in 1961. In 2013, Douglas, Lancaster, and Sarpy Counties accounted for more than 57 percent of Nebraska's births.

Figure 5 separates non-metropolitan counties into three groups—micropolitan core (counties with a city of at least 10,000 persons), counties where the largest city was between 2,500 and 9,999 persons, and counties with no city above 2,500 persons. Births in 2013 for each of these groups were significantly below their baby boom peaks and also below their 1980 values. However, the number of births in the micropolitan core counties has remained relatively stable since 1988, and the counties with mid-sized cities have had steady births since the mid-90s. On the other hand, the number of birth in those counties with no city above 2,500 persons has declined steadily.

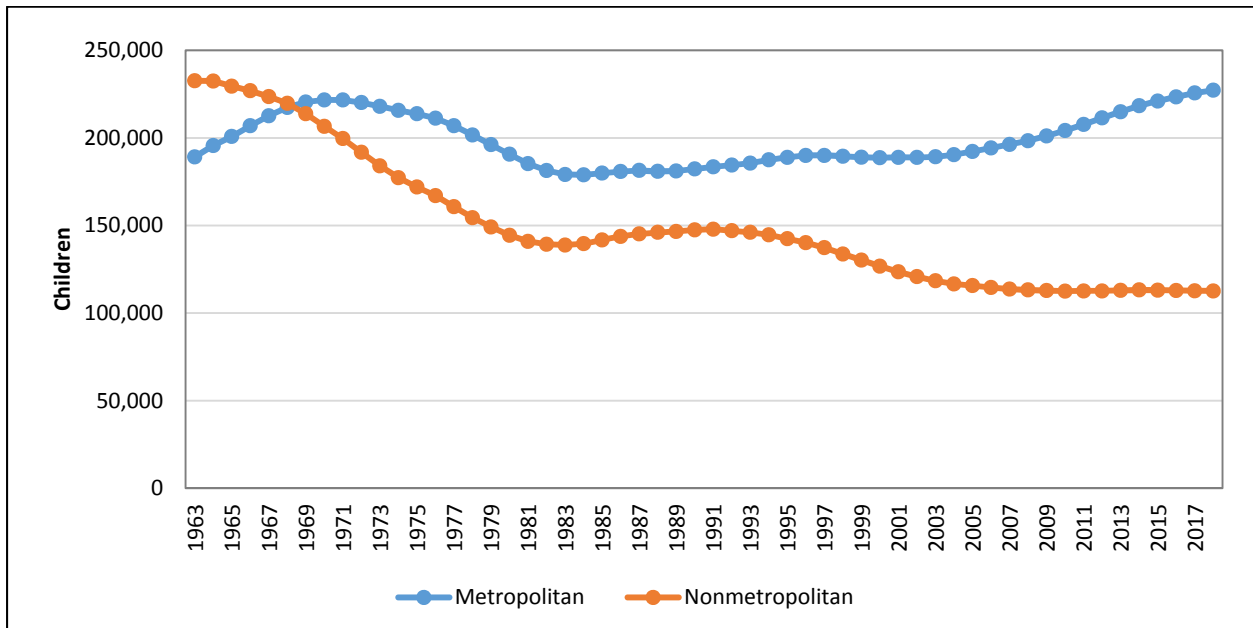
### **School Aged Children by County**

As shown for the state, births by county group also can be accumulated over a thirteen-year period to get an estimate of the school-aged population. These data are presented in Figures 6-8 on the following page. Figure 6 shows that the estimated number of children based on births increased steadily for metropolitan Nebraska since the mid-80s, with the 2018 projections higher than the peak baby boom year of 1970. With the exception of the period from about 1982 to 1992, non-metropolitan Nebraska had experienced a steady decline in the estimated number of school-aged children. On a positive note, there has been very little change since 2010.

For the metropolitan counties, the strength in the estimated number of school-aged children can be found in Douglas, Lancaster, and Sarpy Counties, as these three counties have shown steady growth since the 1980s, while the remainder of the metropolitan counties has remained relatively flat. The 2018 projection for the state's three most populous counties is well above their baby boom peak in 1971.

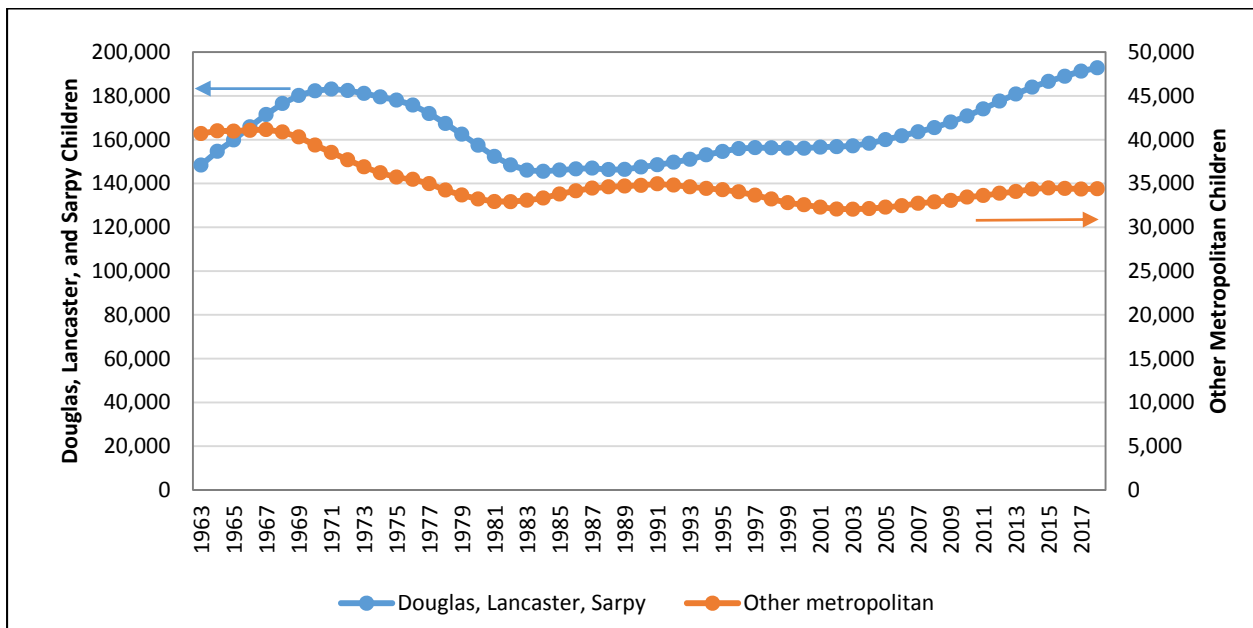
For the non-metropolitan counties in Nebraska, the picture is much less positive, as all three of the county groups have fewer estimated school-aged children currently than they had twenty years ago. The counties with the smallest communities recorded the largest decline. In fact, in 1963, these counties were estimated to have had 85,000 school-aged children, but the projections for 2018 show this dropping to 25,000 children. On a more optimistic outlook, the state's micropolitan core counties have been experiencing a slight increase in the estimated number of school-aged children since 2004.

**Figure 6. Estimated Number of Children Aged 5 to 17 Years Based on Births for Nebraska Counties by Metropolitan and Non-metropolitan Status (2013 Definitions), 1963 to 2018**



Source: Vital Statistics Reports, Nebraska Department of Health and Human Services; calculations by UNO Center for Public Affairs Research

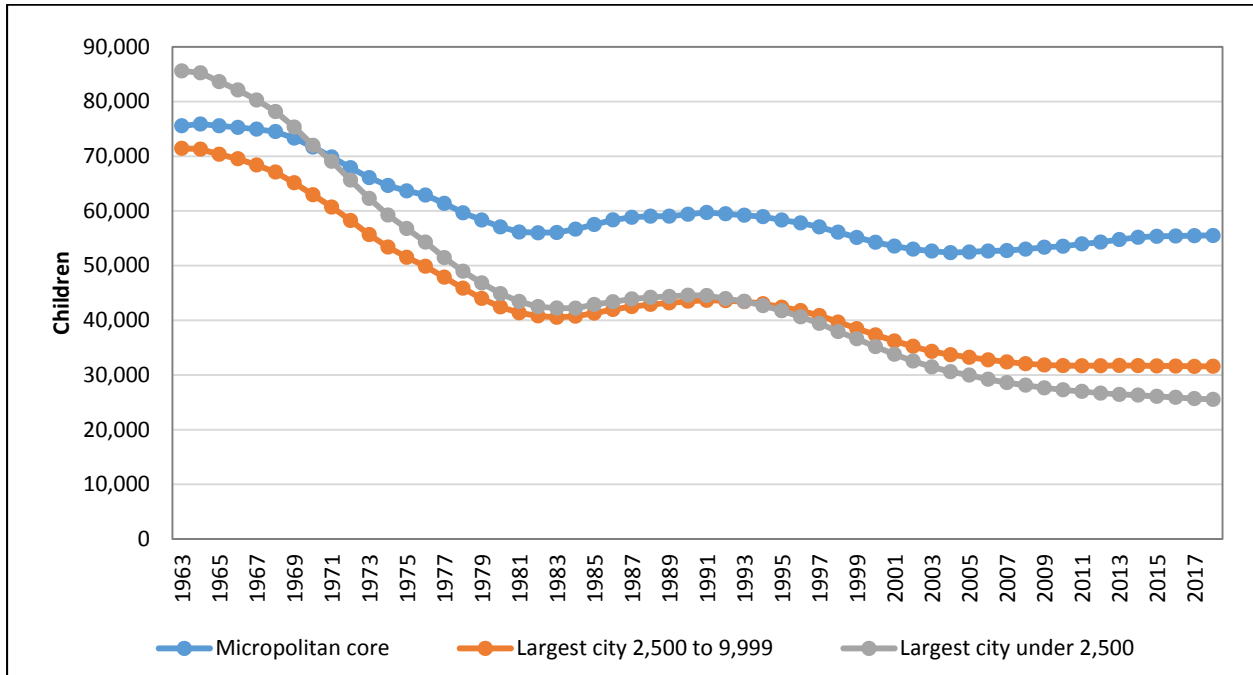
**Figure 7. Estimated Number of Children Aged 5 to 17 Years Based on Births for Nebraska Counties by Metropolitan Status (2013 Definitions), 1963 to 2018**



Source: Vital Statistics Reports, Nebraska Department of Health and Human Services; calculations by UNO Center for Public Affairs Research



**Figure 8. Estimated Number of Children Aged 5 to 17 Years Based on Births for Nebraska Counties by Non-metropolitan Status (2013 Definitions), 1963 to 2018**



Source: Vital Statistics Reports, Nebraska Department of Health and Human Services; calculations by UNO Center for Public Affairs Research

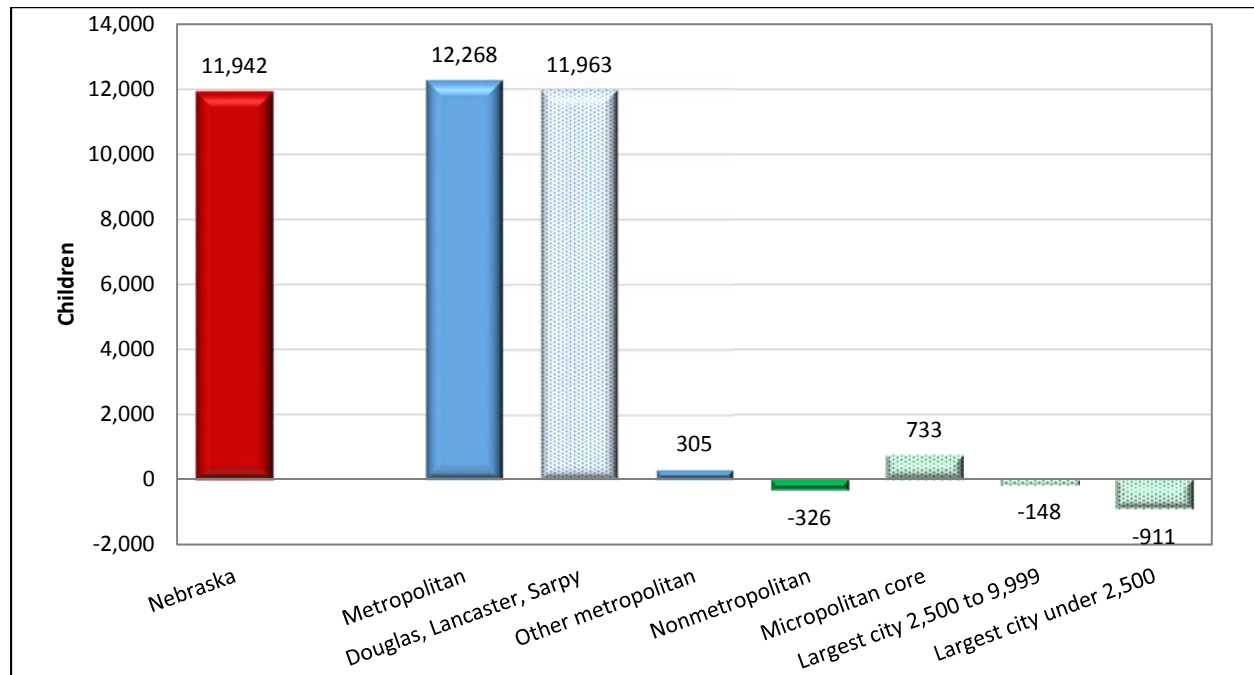
### Projections of the Number of Estimated School-Aged Children

Since the number of births are known through 2013, we can project the number of potential school-aged children for the next five years to 2018. Figure 9 presents the change in the number of school-aged children between 2013 and 2018 using the projection technique described earlier. Although not a direct measure of enrollment, these numbers should give an indication of what might be expected in the next five years.

Between 2013 and 2018, based on historical births, we expect the state to add 11,492 school-aged children. Collectively, we project that the state's thirteen metropolitan counties will add 12,268 school-aged children, while the state's eighty non-metropolitan counties will have 326 fewer school-aged children. Dividing the metropolitan counties into Douglas, Lancaster, and Sarpy Counties and the remainder of the metropolitan counties, nearly all of the potential growth in enrollment in the next five years will be in the state's three most populous counties. Together these three counties are projected to have an increase of 11,963 in the number of school-aged children. The remaining metropolitan counties will add 305 children.

For Nebraska's non-metropolitan counties, the micropolitan core counties will experience an increase of 733 school-aged children. Those counties with the largest city between 2,500 and 9,999 will see a decline of 148 children, while the counties with no city above 2,500 will have a decline of 911 children.

**Figure 9. Expected Change in the Projected Number of Children Aged 5 to 17 Years Based on Births for Nebraska Counties by Metropolitan and Non-metropolitan Status (2013 Definitions), 2013 to 2018**



Source: Vital Statistics Reports, Nebraska Department of Health and Human Services; calculations by UNO Center for Public Affairs Research

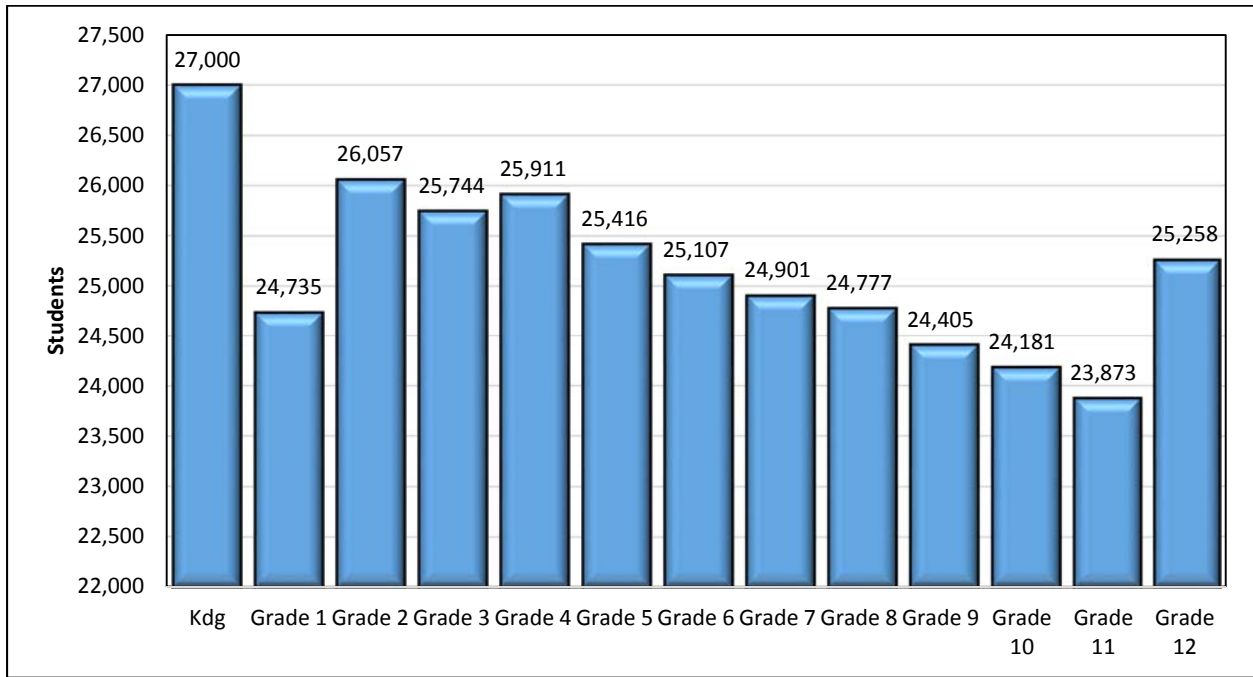
### School Membership by Grade

Figures 10-12 show the 2013-2014 membership by grade. This is another method to suggest what may happen to future enrollments in Nebraska schools. Counties with growing enrollments will have lower grades with more students than upper grades, and counties with declining enrollments will have upper grades with more students. Looking at Figure 10, it shows that

Nebraska had more students in lower grades than in upper grades confirming the earlier projections of increasing enrollments for the next five years. A similar pattern existed for Nebraska's metropolitan counties (Figure 11), again confirming increasing enrollments. The non-metropolitan counties show little change.

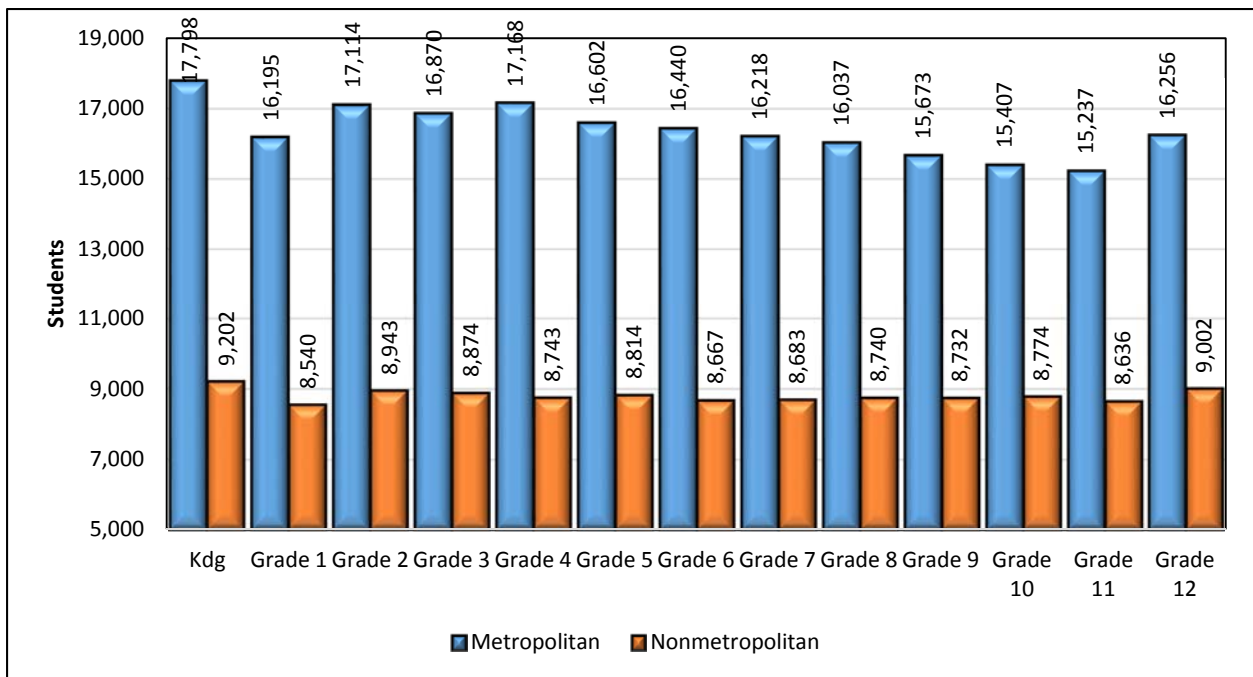
Figure 12 presents the membership information for the three types of non-metropolitan counties. As demonstrated earlier, it shows that the micropolitan counties should have increasing enrollments; counties with the largest city between 2,500 to 9,999 residents should have little change in enrollments; and counties with no city above 2,500 should have declining enrollments.

**Figure 10. 2013-2014 Membership by Grade for Nebraska**



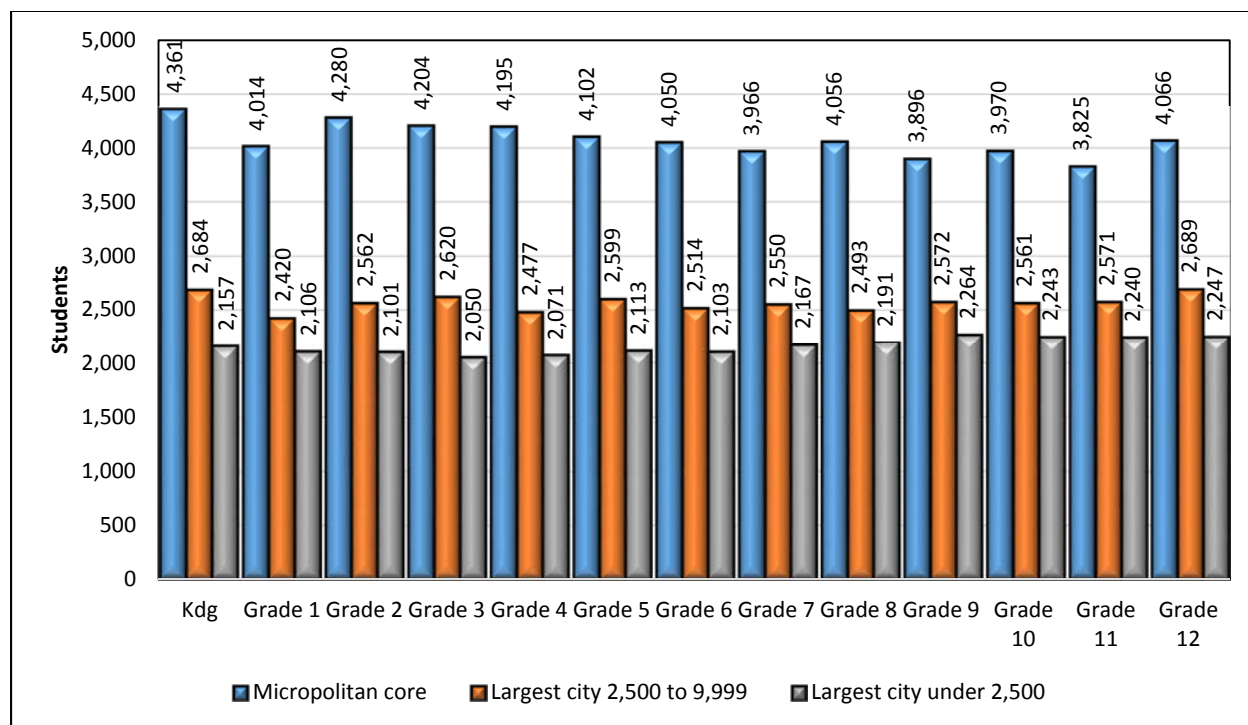
Source: 2013-2014 County Membership by Grade, Nebraska Department of Education Data, Research and Evaluation

**Figure 11. 2013-2014 County Membership by Grade by Metropolitan and Non-metropolitan Status (2013 Definitions) for Nebraska**



Source: 2013-2014 County Membership by Grade, Nebraska Department of Education Data, Research and Evaluation

**Figure 12. 2013-2014 County Membership by Grade by Non-metropolitan Status (2013 Definitions) for Nebraska**



Source: 2013-2014 County Membership by Grade, Nebraska Department of Education Data, Research and Evaluation

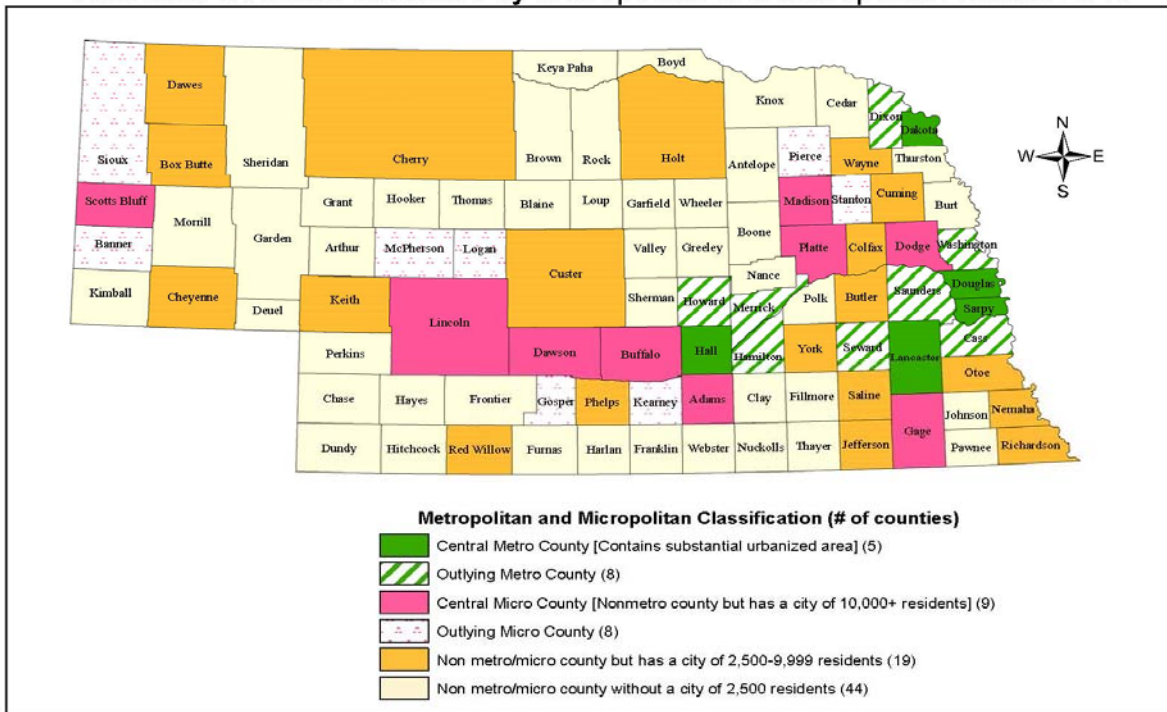
### Conclusions and Implications

It appears that increases in school enrollment for the near future will be concentrated in school districts located in the Nebraska counties containing its largest cities. These counties have experienced more births during the 2000s. As a result, they should also have increases in school-aged children leading to increased enrollments. On the other hand, school districts located in counties where the largest city has fewer than 10,000 residents are likely to continue to lose enrollment as the number of school-aged children is likely to drop due to declining births.

As a result of these changes, there will be a need for additional buildings and teachers in the urban school districts and pressure to restructure or consolidate rural school districts. In 2013, the Center for Great Plains Studies published a special issue of *Great Plains Research* that focused on rural communities and school consolidation. Many of the articles emphasized the importance of schools in community development. They pointed out that the loss of a school can exacerbate the loss of school-aged children as it is more difficult to attract or retain families with children.

Reference Map

**Nebraska Counties Classified by Metropolitan and Micropolitan Status: 2013**



Source: 2013 Metropolitan and Micropolitan Definitions, Office of Management and Budget, 2010 Census , U.S. Census Bureau; prepared by UNO Center for Public Affairs Research, April 2013

**References**

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## State and Local Government Debt

Carol Ebdon, Regents/Foundation Professor  
Byungwoo Cho, Ph.D. Student  
School of Public Administration  
University of Nebraska Omaha  
November 2014

### Introduction

State and local governments issue debt to fund capital projects. Nebraska state debt is extremely low relative to other states, while our local government debt is relatively high. This policy brief analyzes the reasons for these disparities, and provides regional comparisons.

### Debt Overview

When governments invest in capital projects that have long-term useful lives (e.g., buildings, roads, utility infrastructure), they can pay with current resources (*pay-as-you-go*) and/or they can issue debt (*pay-as-you-use*). Scholars support the use of debt for these purposes for three reasons. First, repayment of debt over time increases intergenerational equity; those who benefit from the project in the future will help to pay for it through taxes or fees. Second, paying for projects using only currently-available funds discourages capital investment and can therefore be economically inefficient. Third, capital projects are “lumpy” in that they are typically large relative to the annual operating budget and the amount of capital spending can vary substantially from year to year. Paying for them with current cash could lead to volatility in tax rates over time, and revenue streams for some projects may not occur until after project completion. Therefore, timing of capital projects may warrant the use of debt.

Government debt can be either guaranteed or nonguaranteed. General Obligation Bonds (G.O. bonds), used for projects that have general benefit for the community, are guaranteed by the “full faith and credit” of the government’s taxing authority. Because of this, G.O. bonds typically are less risky and therefore have lower interest costs for the issuer. Non-guaranteed debt includes Revenue Bonds and Lease-Purchase Bonds. Revenue bonds are repaid from fees or other forms of revenue specifically related to the project. Lease-purchase bonds are typically paid from general revenues and require an annual budget appropriation. Because of the uncertainty of the future revenue streams, nonguaranteed forms of debt typically have higher interest costs for the issuer.

While debt can serve an important purpose, debt levels that are too high can affect the long-term fiscal health of a community or state, and can “crowd out” spending on other important activities. There are a variety of constraints on the issuance of debt. Most states have restrictions on both state and local governments, especially related to General Obligation debt. Many of these restrictions date from the 1800s when extensive levels of railroad debt led to fiscal crises and bankruptcies. For example, the State Constitution in Nebraska limits total outstanding state debt to \$100,000, except for specific purposes related to highways and education (Article XIII, Section 1). Local governments in the state must seek voter approval for General Obligation bonds, and limits are imposed based on property valuation.

### Regional Comparisons

Tables 1 and 2 use U.S. Census Bureau data to show how per capita debt compares between states, and between local governments, in the 2011-2012 fiscal year. The comparisons use the U.S. national

## State and Local Government Debt

average, as well as the nine states in the region (the states in the U.S. Census Bureau West North Central region, as well as Nebraska's adjacent states of Colorado and Wyoming).

**Table 1: State Debt Per Capita, 2011-2012 (\$)**

	State Debt Outstanding	National Rank
United States	\$ 3,713.33	
South Dakota	\$ 4,421.80	13
Missouri	\$ 3,407.58	26
Colorado	\$ 3,238.15	28
North Dakota	\$ 3,081.11	32
Minnesota	\$ 2,490.12	36
Kansas	\$ 2,406.05	38
Wyoming	\$ 2,348.61	39
Iowa	\$ 2,023.23	41
<b>Nebraska</b>	<b>\$ 1,134.67</b>	<b>49</b>

Source: U. S. Census Bureau, State Government Finance and Total Population (ACS 2012 5-year Estimate)

As seen in Table 1, Nebraska's state debt per capita is \$1,134.67. The state ranks 49<sup>th</sup> nationally. Nebraska's debt level is 69% below the national average of \$3,713.33, and 44% below the state of Iowa which has the second-lowest debt per capita in the region. As noted earlier, the constitutional provision in Nebraska is a significant restriction on state debt issuance.

**Table 2: Local Debt Per Capita, 2011-2012 (\$)**

	Local Debt Outstanding	National Rank
United States	\$ 5,789.04	
Colorado	\$ 7,219.19	5
Kansas	\$ 7,146.58	6
Minnesota	\$ 6,415.85	8
<b>Nebraska</b>	<b>\$ 5,844.39</b>	<b>12</b>
Missouri	\$ 4,268.58	24
North Dakota	\$ 3,547.48	32
Iowa	\$ 3,546.58	33
South Dakota	\$ 2,711.46	40
Wyoming	\$ 1,812.68	48

Source: U. S. Census Bureau, State & Local Government Finance and Total Population (ACS 2011 5-year Estimate)

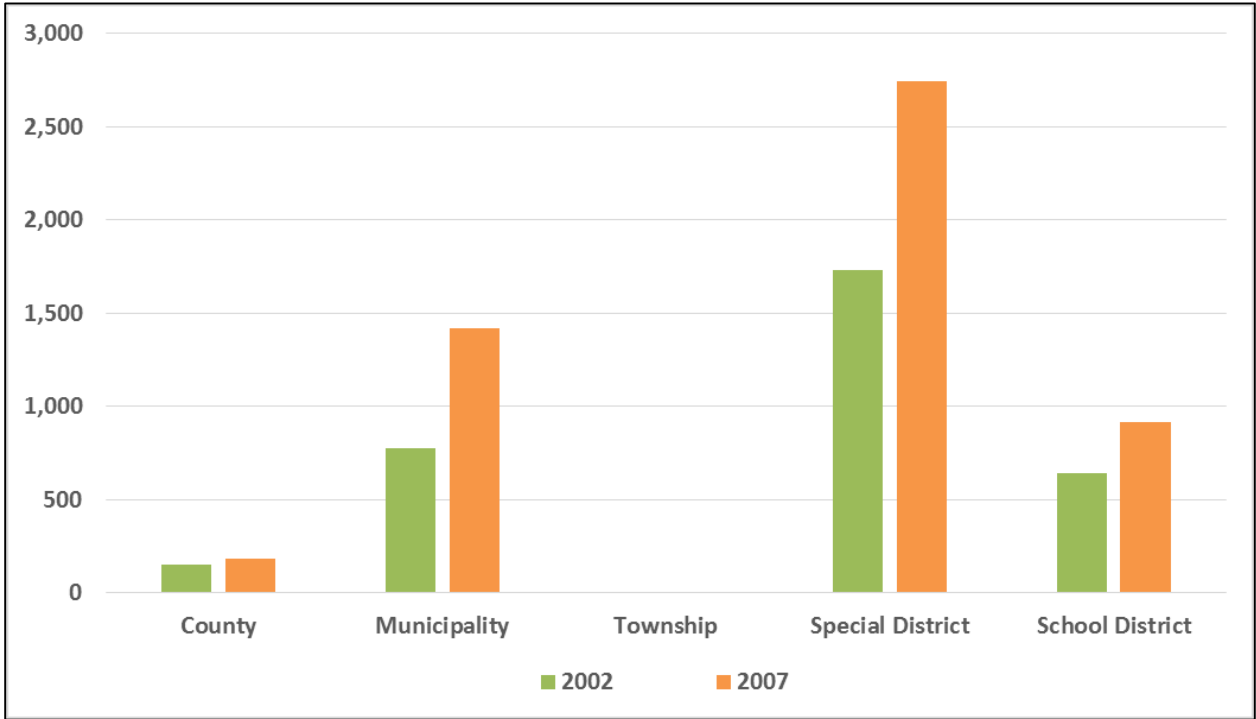
On the other hand, local government debt per capita in Nebraska of \$5,844.39 is ranked 12<sup>th</sup> in the nation (see Table 2). This level is 1% higher than the national average of \$5,789. Three states in the region (Colorado, Kansas, and Minnesota) have higher levels of debt than Nebraska, but four are lower. Wyoming's debt is only \$1,812, 69% lower than Nebraska's local debt per capita.



**Local Debt by Type of Government**

Comparing debt across types of local government can help to better understand why Nebraska’s local debt level ranks so high nationally. U.S. Census Bureau data by type of local government is available every five years. The most recent data at this level are for the years 2007 and 2002.

**Figure 1: Nebraska Local Debt Per Capita by Type of Government, 2002 and 2007 (\$)**



Source: U. S. Census Bureau, State & Local Government Finance and Total Population (ACS: 2007, 3-year estimate & Department of Natural Resources Nebraska: 2002, County Population Estimates Data)

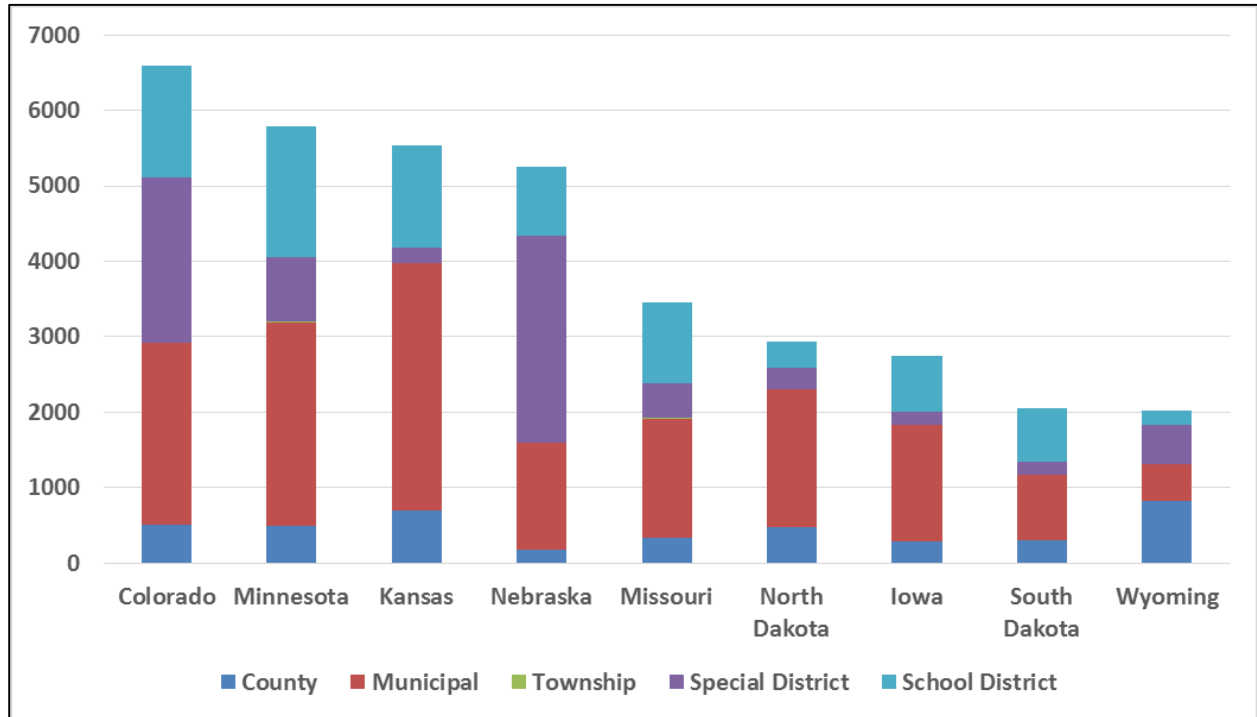
Figure 1 compares debt levels between the two years of 2002 and 2007, and also compares between type of government. Special districts are by far the largest users of debt in the state. These districts account for 52.19% of the total local debt in 2007. Municipalities have the second highest debt levels, at 27.02% of the total in 2007, followed by school districts at 17.36% of the total, and counties at 3.42%. All of these local government types increased per capita debt between 2002-2007, with the largest increases in special districts (58.5%) and municipalities (83.5%).

Detailed data are not available for debt outstanding by type of special district. However, special district expenditures in Nebraska are primarily driven by utilities, and especially electric power utilities. In 2007, all utilities comprised 80% of special district expenditures; electric utilities comprised 65% of special district spending. Since electric utilities are largely responsible for special district expenditures, it is logical to conclude that they are also responsible for the majority of special district debt.

Nebraska is the only state with 100% public power. Therefore, electric utility debt in the state is all local government debt, whereas in other states, some of this debt is issued by private utilities rather than government entities. This can be seen more clearly in Figure 2, which compares local debt per capita by type of government across the states in the region. Nebraska has significantly higher special district debt

than other states. Excluding special districts, Nebraska is comparable to the other states. It is difficult to make direct comparisons across states, though, as some functions may be included in cities/counties in some places and as special districts in others.

**Figure 2: Local Debt Per Capita by Type of Government, Regional Comparison, 2007 (\$)**



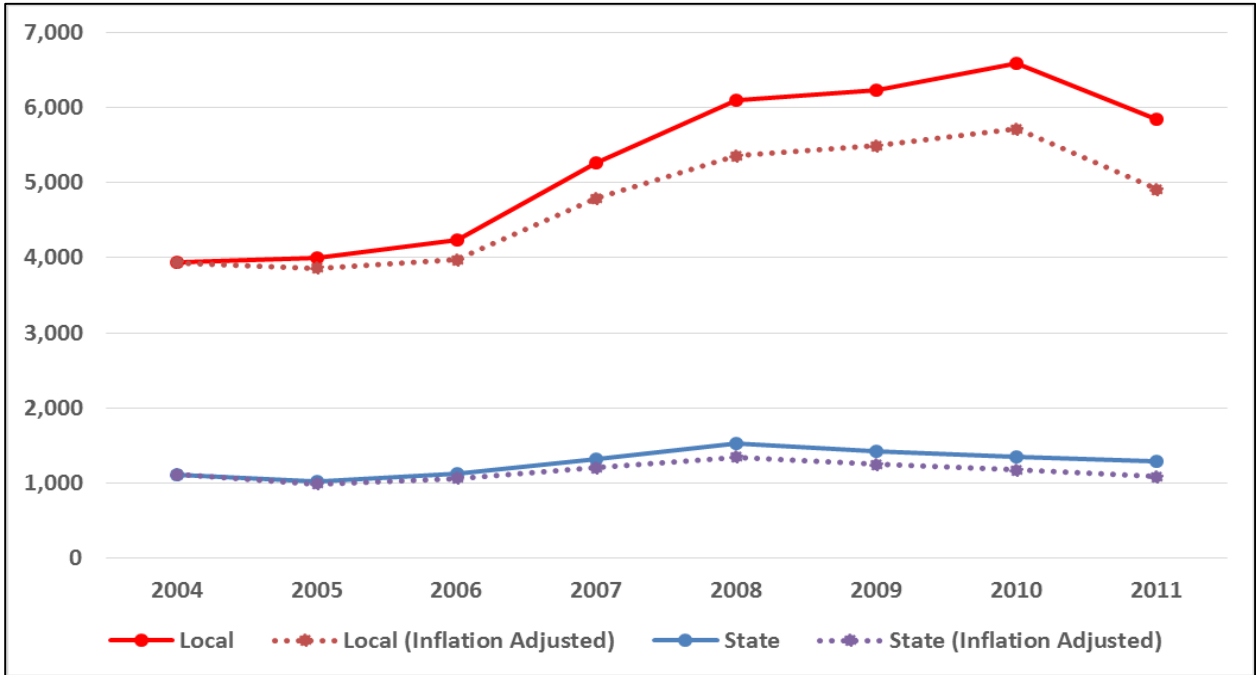
Source: Source: U. S. Census Bureau, State & Local Government Finance and Total Population (ACS: 2007, 3-year estimate)

**Growth in Debt**

How much debt is too much? This is a difficult question to answer, because it depends on a variety of factors such as sources of debt repayment, other long-term commitments (e.g., pension and other post-employment benefits liabilities), overlapping debt within a community, projected growth of the local economy, and the purpose of projects (e.g., some projects are specifically intended to increase the local tax base). Growth of outstanding debt over time, though, can be useful in detecting patterns and potential concerns.

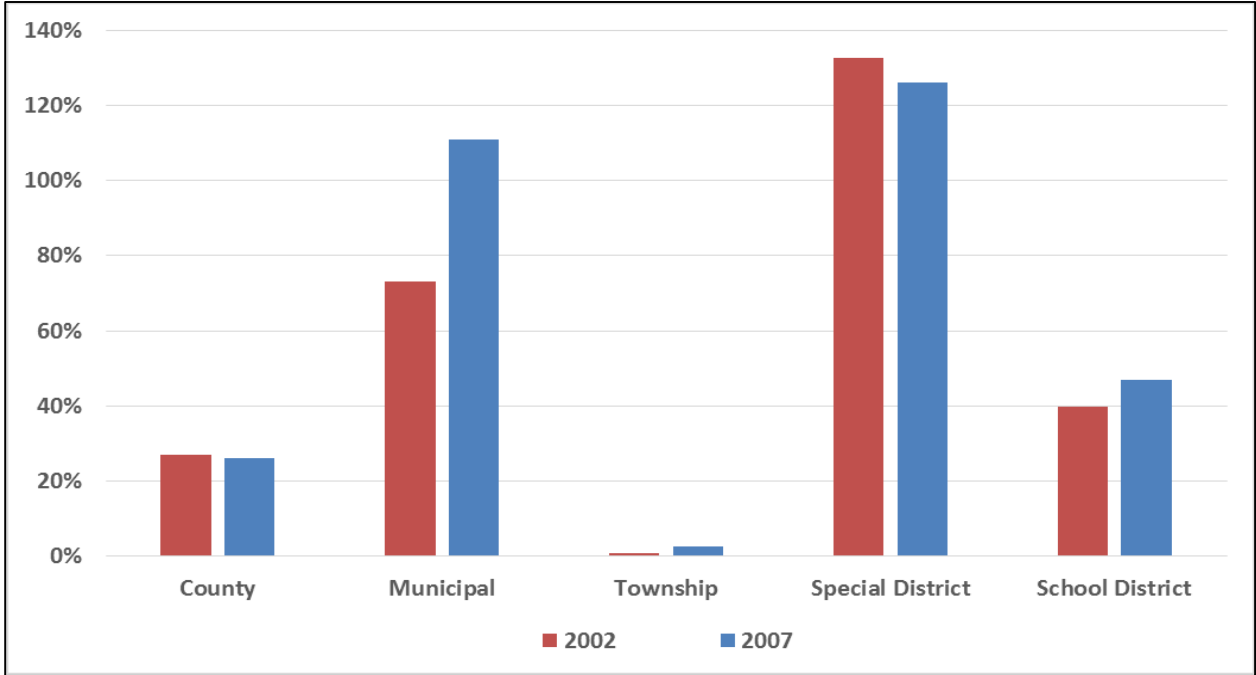
Figure 3 graphs both Nebraska state debt and local debt outstanding per capita between 2004-2011. State debt has grown slightly over time, but has declined since 2008. Local debt has grown over this period by 48.4%, from \$3,937.25 to \$5,844.39, although there was a decline in 2011. In real terms, after adjusting for inflation, local debt has grown by 24.7% while state debt has decreased by 2.63% over the same period.

**Figure 3: Nebraska State and Local Government Debt Outstanding Per Capita, 2004-2011 (\$)**



Source: U. S. Census Bureau, State & Local Government Finance and Total Population; Consumer Price Index for All Urban Consumers (CPI-U): U.S. city average (1982-84=100)

**Figure 4: Local Debt as a Percentage of Total Expenditure by Type of Government, 2002 and 2007 (\$)**



Source: U. S. Census Bureau, State & Local Government Finance and Total Population (ACS: 2007, 3-year estimate & Department of Natural Resources Nebraska: 2002, County Population Estimates Data)

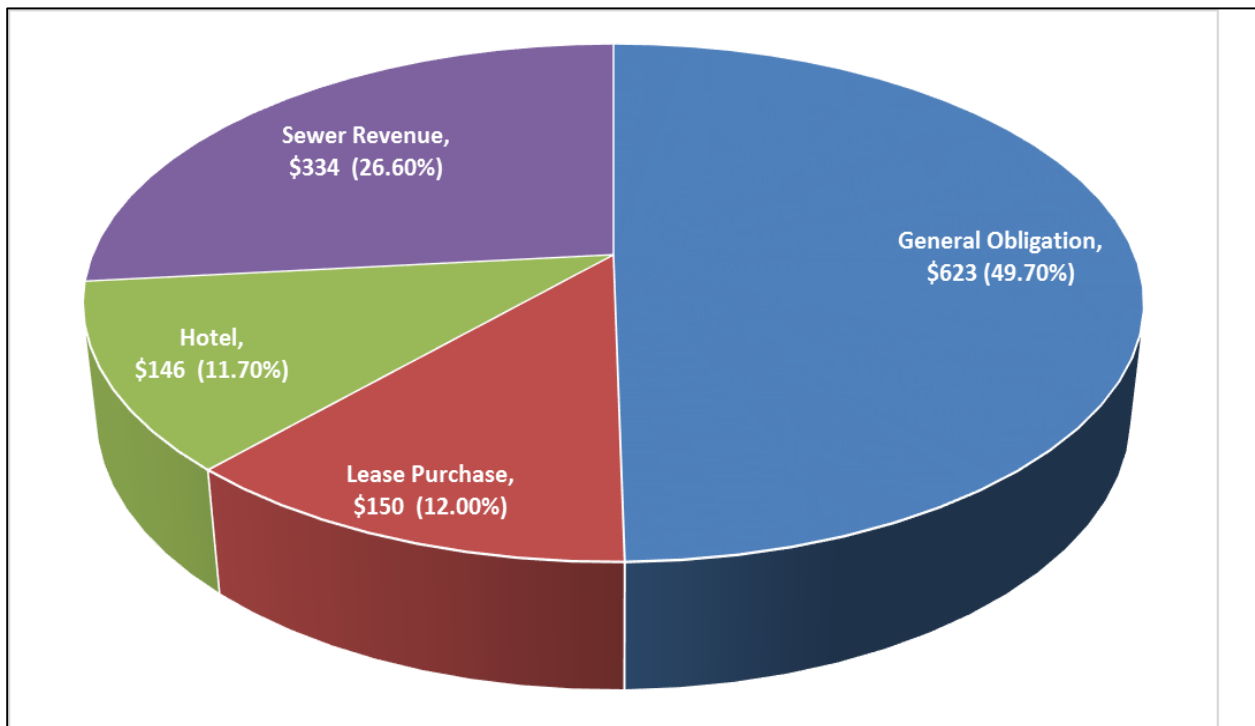
Another way to consider debt capacity is to compare outstanding debt to the level of overall expenditures. Figure 4 shows this data for local debt by type of government. Special districts have the highest level of debt as a percent of total expenditures in 2002 (132.7%). However, special district debt declined by 6.6 percentage points by 2007. Debt issued by municipalities has increased substantially as a percent of total expenditures in this period, from 73.2% to 110.9%. School districts and counties have lower levels of debt relative to total spending, and have had relatively little change over this period in this ratio.

### City of Omaha

The City of Omaha provides an example of an individual local government that has experienced large increases in outstanding debt since 2000 (see Figure 5). The City's outstanding debt as of December 31, 2013 was \$1.25 billion. Approximately one-half of the debt is in the form of General Obligation bonds, supported primarily by a property tax levy. The remainder of the debt is lease-purchase bonds and revenue bonds, with a variety of different repayment sources.

Omaha has taken on debt for several major projects related to economic development, including riverfront development and a convention center/arena (\$300 million), a downtown stadium (\$100 million), and a convention hotel (\$146 million). These projects account for 43.6% of the city's total outstanding debt. In addition, the city is in the process of a 15-year federally-mandated Combined Sewer Overflow Control Plan, which is expected to increase the sewer revenue debt to about \$2 billion. Bond rating agencies have noted that the city's debt levels are relatively high, but manageable.

**Figure 5: City of Omaha Outstanding Debt, December 31, 2014 (in \$millions, %)**



Source: City of Omaha 2013 Comprehensive Annual Financial Report

## Observations

The state's debt levels are very low, presumably due to the constitutional restrictions. Local debt levels are relatively high, which appears to be primarily because the state has 100% public power. As seen in the City of Omaha, there is increasing use of local debt for economic development purposes, such as stadiums and arenas. The long-term costs and benefits of these projects will not be known for decades.

This analysis does not point to a serious problem with debt at this time. However, the level of local debt has increased in recent years. One concern may be overlapping debt. For example, in the Omaha area, the City of Omaha will increase debt substantially over the next decade for the sewer project. The Metropolitan Utilities District is expecting to do a significant amount of work on infrastructure at this same time, and voters just authorized a large bond issuance for the Omaha Public School District. These simultaneous projects will increase tax and fee burdens on the local residents and taxpayers.

Scholars consider long-term capital planning to be useful for anticipating and prioritizing needs, and to help stabilize debt and property taxes. Some local governments in Nebraska have Capital Improvement Plans, ranging from 3-10 years, but others do not. This type of planning can be especially important for monitoring and financing maintenance needs, since deferred maintenance can end up costing more money over the long run. Local governments could be encouraged to develop long-term capital plans.

Finally, debt issuance incurs costs. Some methods and forms of debt are more costly than others. Nationally, interest rates have been consistently found to be lower with competitive versus negotiated sales, yet governments are increasingly using negotiated methods. And while General Obligation debt typically has lower interest rates, use of other types of debt has increased. Additional study of these issues in Nebraska local governments could be helpful in understanding the efficiency of debt issuance in these jurisdictions, and whether training or policy changes may be beneficial.

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## Local Government Pensions

Carol Ebdon, Regents/Foundation Professor  
School of Public Administration  
University of Nebraska Omaha  
November 2014

### Introduction

Pension plans have received an increasing amount of attention since the Great Recession, when many public plans and retirees suffered significant investment losses. This is an important issue, particularly as baby boomers are beginning to retire and retirees are living longer than previous generations. Depending on the type of pension, underfunded plans can result in large long-term liabilities for governments and taxpayers, or may have a negative effect on the ability of retirees to live comfortably and contribute to a growing economy. This policy brief reviews the differences between defined benefit and defined contribution pensions, then reports on the results of a study of local government defined contribution plans in Nebraska. The status of the two defined benefit pension plans in the City of Omaha is also discussed.

### Defined Benefit versus Defined Contribution Plans

There are two major types of pension plans: defined benefit and defined contribution.<sup>1</sup> There are approximately 2,500 public defined benefit plans in the U.S. In these plans, retirees receive a guaranteed benefit based on retirement age, average salary and years of service. These plans have been under increased scrutiny after median investment losses of 25% in the 2008 financial market crisis. While the plans have over \$3.2 trillion in assets, they are underfunded by over \$1 trillion. The risk of defined benefit plans is borne by the pension system/sponsoring government. One downside for employees who do not plan a career with the same employer, though, is that these plans are not portable, so do not transfer to other employers. However, it is important to note that 27% of state and local employees nationally are not covered by Social Security, so their only guaranteed pension benefit is from their employer's defined benefit plan.

In defined contribution plans, on the other hand, benefits are not guaranteed. The amount of pension benefits received depends on the amount contributed by employees (and sometimes employers) and the investment returns accrued over time. These plans are similar to a 401(k) plan in the private sector. With defined contribution plans, the risk is borne by the employee/retiree. The employer typically hires one or more service providers, with a variety of investment options from which the employee can choose. The employees have control over their investments, and usually the ability to determine whether and how much they choose to contribute. These plans have lower administrative costs for government, and younger employees may prefer the increased flexibility and portability of defined contribution plans. Overall fees, however, have been found to be lower with defined benefit plans than with defined contribution plans.

Local government employees in Nebraska are covered by a variety of different types of plans. Most counties and school districts participate in the state defined contribution/cash balance plans that cover

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<sup>1</sup> A third type is a cash balance plan. Cash balance plans combine defined contribution plans with a form of guaranteed return. These plans, used by the State of Nebraska, are not widely used in other governments.

these employees, although some have separate defined benefit and/or defined contribution plans. Some municipalities and special districts (e.g., utilities and airports) have defined benefit and/or defined contribution plans. The defined benefit plans are used more in the larger local governments. Since most local plans are defined contribution plans, they are the primary focus of this brief.

### **Defined Contribution Plan Research**

Extensive research has been done on defined contribution plans in the private sector, which has largely transitioned from defined benefit to defined contribution plans over the last several decades. This research has found that only about 22% of eligible employees participate in these plans, on average. Participants demonstrate a lack of knowledge about costs and investments, and they rarely change their asset allocation. In one study, 33% of survey respondents did not know whether they had a defined benefit or defined contribution plan, or their benefit levels. Methods to increase the use of these plans, such as automatic enrollment for employees and employer matching, have had a significant effect on participation where they have been used.

While most state and local government employees are still covered by a defined benefit plan, defined contribution plans have become increasingly popular. In the past, defined contribution plans were used primarily as a supplement to a defined benefit plan, but this is expected to change in the future as governments struggle with unfunded liabilities and taxpayers are paying for benefits for public employees that are more generous than the ones they receive from their private employers. As of 2012, five states used a defined contribution plan as their primary plan, but a number of others have introduced some form of a defined contribution plan in the last decade. Some local governments still have a primary defined benefit plan, while others participate in state-level systems, and others offer defined contribution plans as a primary plan or as a supplement to a defined benefit plan. Despite the growing importance of defined contribution plans in government, though, there is little research on their plan administration and decision making. We know little about how experiences and issues with public plans compare to those of private plans.

### **Study of Defined Contribution Plans in Nebraska**

To better understand local government practices related to defined contribution plans, faculty associated with the Public Pension Funds Initiative at the University of Nebraska Omaha conducted a survey of municipalities in the state in 2011.<sup>2</sup> Responses were received from 198 municipalities (38% of the total). Of these, 61 (31%) reported having a defined contribution plan. Some of these have multiple plans, so the total number of plans studied is 81. Key results from the survey will be presented and discussed, along with additional information collected from follow-up interviews with officials in several communities.

Table 1 shows how the defined contribution plans are administered. There are a variety of methods utilized, but most plans use an outside administrator. Many of these (16) are administered by an insurance company. This is not necessarily a problem, but some insurance companies have limited investment options. In addition, insurance and investment companies may each have conflicts in terms

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<sup>2</sup> The Public Pension Funds Initiative was funded through a grant from the University of Nebraska Foundation. The survey also included counties, but the county responses mixed the data from the state plan with local plans, so we were unable to clearly distinguish the information related solely to the local-sponsored plans.



of favoring their own products. Smaller cities are more likely to use external consultants or a single city official as the plan administrator, while larger cities use a board or other methods.

**Table 1. Plan Administrator by Population**

Plan Administrator	Number of Plans	Average Population of Jurisdiction
Single City Official	11	4,050
Board/Commission	14	28,010
External - Investment Company	11	6,437
External - Insurance Company	16	8,692
External – Consultant	9	3,640
Other/No Answer	20	28,423
Entire Sample	81	15,404

A number of plans have default investment options (see Table 2); these are the types of investments in which a participating employee will be automatically enrolled unless a different option is selected. Since previous research on defined contribution plans has shown that participants in private plans rarely change their asset allocation, the initial investment choices will have a large influence on potential investment earnings over time. Plans administered externally by insurance companies and consultants have proportionately higher rates of default investment options. Plans administered by boards or commissions tend to rely more on target date funds, in which investments are in a variety of types of assets depending on the expected year of retirement of the participant. Insurance company administered plans are more reliant on guaranteed investment contracts (GIC) and annuities, which are typically insurance products. Consultant managed funds rely more heavily on money market funds.

**Table 2. Default Investment Options**

Plan Administrator	Target Date Fund	Money Market Fund	Stable Value Fund	Bond Fund	Guaranteed Investment/ Annuity	Not Sure
Single City Official	2	1				1
Board/Commission	4		1			
External – Investment	1	1		1		
External – Insurance Company	1	1		2	6	
External – Consultant		4			1	

In theory, employers monitor their defined contribution plan administrators and providers to ensure that the plan is serving the employees and retirees well. One indicator of the degree to which plans are monitored is whether providers are changed (see Table 3). Of the valid answers to a survey question asking when the plan last changed investment service providers, about one-third said that they had never changed providers; the actual percentage is likely much higher, given some of the other responses, such as “?” and “N/A.” On the other hand, twelve of the plans had changed providers in the last two years.

The reasons for making changes included poor performance, change in style, desire to change the investment mix, and concerns of the plan participants. Some respondents, however, noted that participants or employers wanted local providers. While communication is important, and may be enhanced by proximity of providers, best practice recommendations would be that performance should be the major reason for selecting plan providers.

**Table 3. Most Recent Provider Change**

Providers Changed	Number
New Plan	1
Never	15
?, N/A	6
Done by Plan Provider	3
Currently Looking	2
Within 1 Year	8
Within 2 Years	4
3-6 Years	4
7-10 Years	3
More than 10 Years	2

Employees are required to participate in some plans, while others are optional. In our sample, respondents reported 33 mandatory plans and 25 optional ones; the others did not respond to this question. As seen in Table 4, there is not a significant difference between the plan types in their use of consultants to select service providers; about one-half of each plan type use consultants. The average contribution rates vary, however. Optional plans have lower average contribution rates from both the employee (2.98% for optional plans versus 4.89% for mandatory plans) and employer (3.79% for optional versus 6.00% for mandatory plans). Mandatory plans have a slightly lower investment expense ratio (0.73%) than optional plans (0.96%), but administrative expenses are higher for mandatory plans (0.90%) than for optional plans (0.62%). These numbers may not accurately reflect the entire sample, though, as some plans did not respond to the fee questions in the survey, and some did not know their fee levels.

**Table 4. Mandatory versus Optional Plans**

	Number of Plans	% of Consultant Use	Average Contribution Rate	Investment Expense (Median)	Administrative Expense (Median)
Mandatory Plans	33	47%	Employee – 4.89% Employer – 6.00%	0.73%	0.90%
Optional Plans	25	50%	Employee – 2.98% Employer – 3.79%	0.96%	0.62%

The types of investments used by participants are crucial, since the investment returns over time will determine the amount available when they are ready to retire. Experts recommend a diverse portfolio, in order to hedge risk. Some assets perform well in some parts of the economic cycle while others do better at other times, and some assets have less risk and volatility than others but also a lower expected rate of return over time.

Table 5 displays the most-used asset classes in the 34 plans that reported their allocation. Almost one-third of assets in these plans are allocated to U.S. large capitalization equities, which is the most widely advertised and understood asset class. Domestic equity funds account for over one-half of total funds. Target date funds and stable value funds comprise another 23% of the total allocation, with other investments spread out among a variety of asset classes. Surprisingly, domestic bonds are only 6% of the total allocation. Allocations vary depending on the type of plan administrator. Plans administered by external insurance companies, for example, have over one-third of their assets invested in stable value funds, which is not surprising as insurance companies are often originators of products that form the underlying assets for stable value funds.

**Table 5. Asset Allocation**

Type of Asset	% Allocated	Type of Asset	% Allocated
U.S. Large Cap Equities	34.62%	International Equities	7.32%
U.S. Small Cap Equities	19.37%	U.S. Corporate Bonds	6.00%
Stable Value	12.36%	Balanced Funds	4.51%
Target Date Funds	11.18%	Other	4.64%

Overall, we found that most municipalities do not offer a pension plan. For those that do, there are large variations in administration, and default investment options and asset allocation depend largely on the type of plan administrator. There appears to be a lack of knowledge of these plans on the part of local officials, especially related to fees and investment performance. Several examples illustrate this issue. One jurisdiction did not follow federal laws related to contribution rates, which resulted in payment of IRS penalties when the error was discovered. Officials in another community had the same provider for a long period of time without realizing that the administrative fees being charged were substantially higher than the average fees for other plans. In addition, a number of respondents reported that they were totally reliant on an outside vendor for the defined contribution plans, and the government officials provided very little oversight of the plans.

**City of Omaha Defined Benefit Plans**

While most local governments in Nebraska with pension plans have defined contribution plans, which hold little risk for the sponsoring governments, there are a few defined benefit plans in the state. The City of Omaha’s two plans have received a great deal of attention lately due to their significant level of underfunding. This section discusses the status of these plans.

The City of Omaha Police and Fire plan is considered one of the lowest-funded local plans in the country. This plan has not been fully funded for several decades, but it recently reached a dangerous level, primarily due to large investment losses in the last two recessions, including a 28% loss in 2008 during the Great Recession. Investment earnings account for about 64% of funding for defined benefit plans (employer and employee contributions comprise the remaining 36%), so a loss of this magnitude is devastating. Other causes of the underfunding include factors such as underestimated costs of some

benefit increases and demographic changes (e.g., individuals living longer than in the past). The inability of the city and labor unions to reach agreement on contracts delayed responding to the crisis for several years.

As of January 1, 2014, the date of the most recent actuarial report, the underfunded actuarial liability for the police and fire plan was \$622.6 million, with a funded ratio of 47%. While the funded ratio and unfunded liability are poor, significant improvements have been made to the status of the plan after approval of labor union contracts that reduced benefits and increased contribution rates. The current total combined employer and employee contribution rate is 50.621% of pay. The contribution rate shortfall is now only 1.544% below the actuarial required rate of 52.138%. This means that over time, all else being equal, the unfunded liability will be reduced. This depends, though, on annual investment returns as well as future union contract provisions.

The Omaha Civilian Employees pension fund, on the other hand, has a lower unfunded liability and higher funded ratio than the plan for uniformed employees, but is further away from contributing at the rate needed to bring the fund into eventual balance. As of January 1, 2014, the unfunded actuarial liability was \$205.2 million, with a funded ratio of 54%. The contribution rate shortfall for this plan, however, is 16.604%. The actual contribution rate of 21.85% of pay is well below the actuarial required contribution rate of 38.45%. Union contract negotiations are currently underway with the several labor unions whose employees are participants in this plan. Benefit reductions and/or contribution increases will be required to improve the status of the plan, and are reportedly a topic of the negotiations.

## **Conclusions**

Many localities in Nebraska do not have their own pension plans. Some participate in the statewide plans, which are available for county employees and school districts. A few larger governments have defined benefit plans. The City of Omaha's defined benefit plans have significant unfunded liabilities, especially following the Great Recession, but steps have been taken to address their uniformed plan and contract negotiations are underway that include discussion of provisions to shore up the plan for civilian employees.

A number of other local governments sponsor defined contribution plans. Defined contribution plans carry lower risk to governments than do defined benefit plans. However, they increase the risk to employees and retirees, who are dependent on their investment choices and accumulated returns over time. Ultimately, private and public sector retirees who have insufficient retirement income from defined contribution plans could have a significant impact on the state's economy and public services.

Based on a survey conducted of municipalities in the state, there is reason to be concerned about defined contribution plans. Results showed issues related to knowledge of the plans, lack of education and oversight, and low participation rates. Many of these governments are relatively small, with officials who are very busy with other duties and have limited time for monitoring these plans. Unfortunately, this can have a serious negative effect on retirement for employees in these plans.

Future research would be beneficial to look at ways in which administration of local government defined contribution plans could be improved. This could include studying rules and regulations used in other states, and methods to improve education of employees and employers. Since statewide plans are currently in existence for employees of counties and school districts, another option might be consideration of a new statewide defined contribution plan for local government employees who are not eligible for the existing state plans.

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## Rural Transit

Jerry Deichert, Director, Center for Public Affairs Research  
 Valerie Lefler, Community Service Specialist, Center for Public Affairs Research  
 Melanie Kiper, Community Service Specialist, Center for Public Affairs research  
 University of Nebraska at Omaha  
 November 2014

### Introduction

Rural Nebraska is served by a variety of transportation services, including rural public transit, intercity bus service, Amtrak, and air service, as well as private vehicles. Despite this, many rural Nebraskans have no or limited access to transportation services. This report looks at some aspects of rural transit in Nebraska.

### Sources and Types of Funding

Table 1 shows that funds are available from the state and federal government to support a variety of transportation-related activities.

**Table 1. Sources and Types of Funding Available for Transportation-Related Activities**

Type of Entity	Type of Assistance Available	Fund Source	Direct Recipient of Federal and/or State Funds
Rural Demand Response	Operating & Non-operating Expenses	Federal 5311 and State	Nebraska Dept. of Roads
Rural Demand Response	Capital Vehicle Purchases & Capital Construction	Federal 5311	Nebraska Dept. of Roads
Intercity Bus	Operating Expenses	Federal 5311 and State	Nebraska Dept. of Roads
Non-profit Agencies in Rural Areas and Lincoln MPO Area	Operating Expenses & Capital Vehicle Purchases	Federal 5310	Nebraska Dept. of Roads
Small & Large Urbanized Areas (Omaha, Lincoln, Simpc-S. Sioux City, and Grand Island)	Planning Funds	Federal 5303 (Divided using a Population Formula)	Nebraska Dept. of Roads
Small Urban Cities	Operating Expenses	State	Nebraska Dept. of Roads
Large Urban Transportation Providers (StarTran and Metro)	Operating Expenses	State	Nebraska Dept. of Roads
Large Urban Transportation Providers (StarTran and Metro)	Operating Expenses & Capital Vehicle Purchases	Federal 5307	Urbanized Areas
Non-profit Agencies in Omaha MAPA Area	Operating Expenses & Capital Vehicle Purchases	Federal 5310	Metropolitan Area Planning Agency
Non-profit Agencies in Small Urbanized Areas (Grand Island and Simpc)	Operating Expenses & Capital Vehicle Purchases	Federal 5310	Nebraska Dept. of Roads

Source: Nebraska Department of Roads

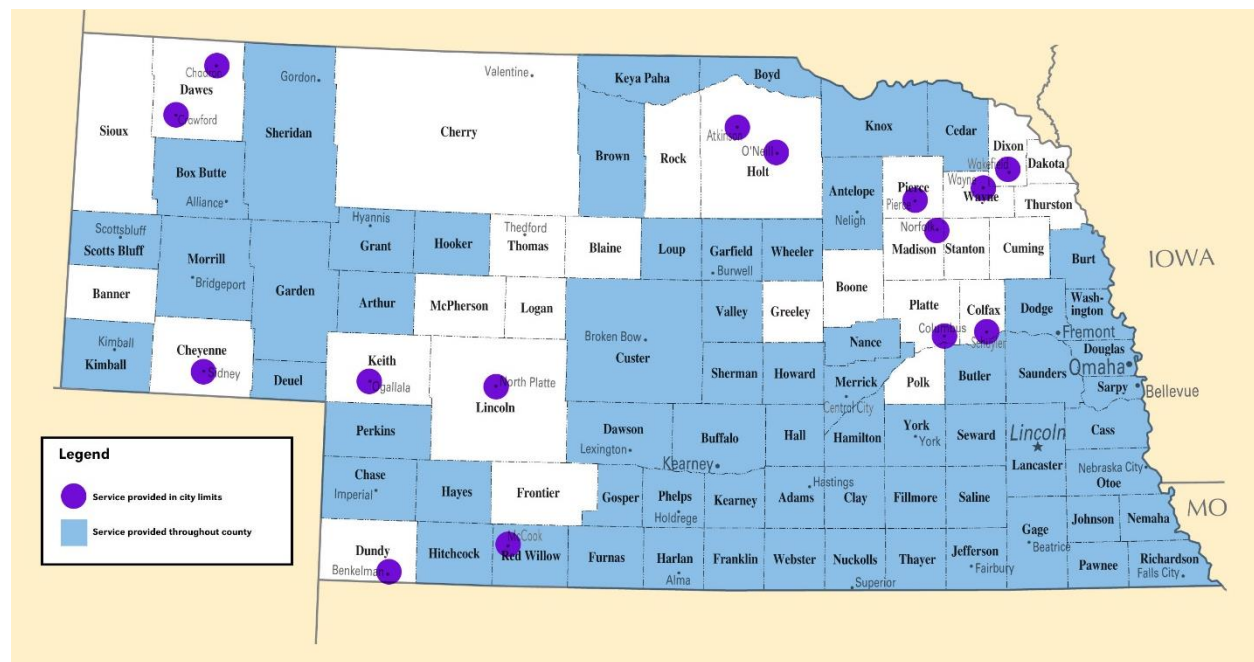
## Rural Transit

Funding assistance for each type of activity varies based upon the type of entity and transit activity. For example, the operating expenses for rural demand response public transportation systems are eligible for 50% federal and 25% state reimbursement, which requires only 25% local match. Non-operating expenses or administrative costs for these rural systems are also eligible for an 80% federal and 10% state reimbursement, which only requires a 10% match at the local level. The federal funding is provided through the Federal Transit Administration 5311 allocation of funds for rural public transit to the state of Nebraska.

### Rural Public Transit

In the State of Nebraska, there are currently 58 rural public transit systems that operate approximate 240 buses, passenger vans, or mini vans. In Fiscal Year 2014, these systems provided 691,868 demand response passenger trips and covered over 2.8 million miles. Nebraska residents rely on these systems for access to medical appointments, school or child care facilities, employment, and shopping for groceries or other daily necessities. Many of these systems are hosted by a city, county, Community Action Partnership Program, or Area Agency on Aging. While many of the users of the public transit system in Nebraska are senior citizens or disabled, transportation subsidized with Section 5311 funds is open to the general public.

**Figure 1. Rural Public Transit Service, Nebraska: 2014**



Source: Nebraska Department of Roads; prepared by UNO Center for Public Affairs Research, November 2014

### Current Intercity Bus Services Available in Nebraska

There are seven intercity bus service providers currently providing service on various routes across the state of Nebraska. As described previously, four are subsidized by the State of Nebraska and three are not. In addition, one feeder service, subsidized directly through FTA, is included in this study.



The routes and stops of four of the providers are defined by a regular schedule with scheduled stops. Three providers have a regular schedule with scheduled stops but also accommodate additional stops on demand. Reservations must be made for additional stops and stops must be directly on the route between the scheduled stops. The additional stops may require an additional fee. There is usually a limited number of additional stops that can be made on each run in order to maintain the route schedule. The feeder service does not have a regular schedule or stops but provides services on demand.

**Table 2. Service Descriptions and Number of Counties Served by Intercity Bus Service Providers, Nebraska: 2014**

Service Provider	Service Description	Number of Counties Served
<b>Subsidized</b>		
Dashabout Shuttle Company	1. Omaha - Colorado 2. McCook - Omaha 3. McCook - North Platte 4. Grand Island - Columbus All routes accommodate additional stops on demand	21
K & S Express	1. Norfolk – Chadron Route accommodates additional stops on demand	8
Black Hills Stage Lines	1. Omaha – Lincoln – Grand Island – Kearney – Lexington – North Platte - Ogallala 2. Omaha – Fremont – North Bend – Schuyler – Humphrey – Madison - Norfolk	10
Blue Rivers Area Agency on Aging	1. Hebron – Fairbury – Beatrice – Lincoln 2. Auburn – Nebraska City – Syracuse – Lincoln – Omaha	6
<b>Not Subsidized</b>		
Burlington Trailways	1. Ogallala – North Platte – Lexington – Kearney – Grand Island – Lincoln - Omaha	7
Navigator Airport Express	1. Kearney – Grand Island – York – Lincoln -- Omaha	4
Omalink	1. Omaha – Lincoln Route accommodates additional stops on demand	4
<b>Feeder Service</b>		
Ponca Express	On-demand service in Ponca Delivery Area	11

Source: College of Public Affairs and Community Service. (2014). *Assessment of Intercity Bus Services in Nebraska*.

Figure 1 shows the scheduled routes and stops for the seven intercity bus service. Some routes are covered by more than one provider. For example, Black Hills Stage Lines, Burlington Trailways, and Dashabout Shuttle Company cover the entire Interstate 80 route from Omaha to the Colorado border. As illustrated in Table 2, additional stops on many of the routes are available on demand.

**Figure 2. Routes of Intercity Bus Services, Nebraska: 2014**



Note: There are 12 first class cities that do not have scheduled stops and which are not on the routes of those providers that make additional stops.

Source: College of Public Affairs and Community Service. (2014). *Assessment of Intercity Bus Services in Nebraska*. Prepared by UNO Center for Public Affairs Research, June 2014

The current intercity bus service providers serve five of the nine metropolitan counties, 10 of the 20 micropolitan counties and 21 of the 64 rural counties. The one feeder service included in this study provides service to one additional micropolitan county and four additional rural counties. Metropolitan counties are those that are part of a metropolitan area. Micropolitan counties are those that include an urban area with a population of 10,000 to 49,999 plus surrounding counties that are linked through commuting ties.

A total of 41 of the 93 counties in Nebraska are served by the providers included in this study. These counties contain 84.0% of Nebraska's total population.

The current intercity bus service providers offer scheduled stops in 24 municipalities, and 16 of these are in first class city or larger municipalities with 5,000 population or higher. Four of the providers allow additional stops on the routes. These routes are along Interstate 80; portions of highways 34 (McCook to Grand Island), 83 (McCook to North Platte), 30 (Grand Island to Columbus), 275 (Norfolk to Holt County), and 20 (Holt County to Chadron), and throughout the Ponca Service Delivery Area. This provides service to an additional eight first class city or larger municipalities.

**Areas lacking service**

There are 12 first class cities that do not have scheduled stops and which are not on the routes of those providers that make additional stops.

There are four metropolitan counties not served: Dakota, Dixon, Washington, and Saunders. There are nine micropolitan counties not served: Scotts Bluff, Banner, McPherson, Logan, Gosper, Clay, Howard, Stanton, and Pierce.

## Other Intercity Transportation Options

Other intercity transportation options for those who either do not drive or choose not to drive include being transported by relatives or neighbors, private for profit transportation services, Amtrak and airline service.

### **Amtrak**

Amtrak operates one long-distance train through Nebraska, the California Zephyr, which runs one train in each direction daily. Amtrak has stations in Omaha, Lincoln, Hastings, Holdrege and McCook. Table 2 shows that since 2007, the number of passenger boardings and alightings has been increasing in the three stations in non-metropolitan Nebraska. Collectively, these three stations accounted for nearly 12,000 boardings or alightings in 2013. This is an increase 31% since 2007.

**Table 2. Amtrak Passenger Boardings and Alightings, Nebraska: FY 2007-FY 2013**

City	Boardings and Alightings						
	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Omaha	25,480	25,627	25,496	25,855	20,668	22,794	24,410
Lincoln	10,616	10,820	10,703	10,770	11,756	12,468	13,160
Hastings	4,085	4,096	4,073	4,084	4,839	5,358	5,865
Holdrege	1,715	1,678	1,671	1,695	1,623	2,296	2,335
McCook	3,205	3,189	3,173	3,175	2,939	3,540	3,638

Source: Amtrak State Fact Sheets, [www.amtrak.com](http://www.amtrak.com)

### **Airline Service**

Nebraska has nine airports with scheduled airline service, seven of which are outside of Lincoln and Omaha. Table 3 shows that between 2008 and 2012 passenger enplanements declined in Lincoln and Omaha but generally increased or remained steady in the other airports. The Grand Island airport exhibited the largest increase, as passenger enplanements in 2012 were more than seven times what they were in 2008. Despite this increase, these seven airport only accounted for 4.2% of Nebraska's passenger enplanements in 2012.

**Table 3. Passenger Enplanements at Airports with Scheduled Service, Nebraska: 2008-2012**

Airport location	Enplanements				
	2008	2009	2010	2011	2012
Omaha	2,136,880	2,083,973	2,097,958	2,047,055	2,018,738
Lincoln	163,177	142,507	139,532	135,647	135,085
Grand Island	7,961	20,136	37,101	47,167	56,138
Scottsbluff	10,680	9,221	9,864	9,912	10,356
Kearney	11,956	10,113	9,530	11,079	12,480
North Platte	10,288	7,924	8,391	10,962	10,962
McCook	1,848	1,677	1,993	1,810	1,623
Chadron	2,152	1,875	1,769	1,980	2,037
Alliance	1,786	1,395	1,416	1,730	1,594

Source: U.S. Department of Transportation Federal Aviation Administration. (2012). Passenger Boarding (Enplanment) and All-Cargo Data for U.S. Airport.

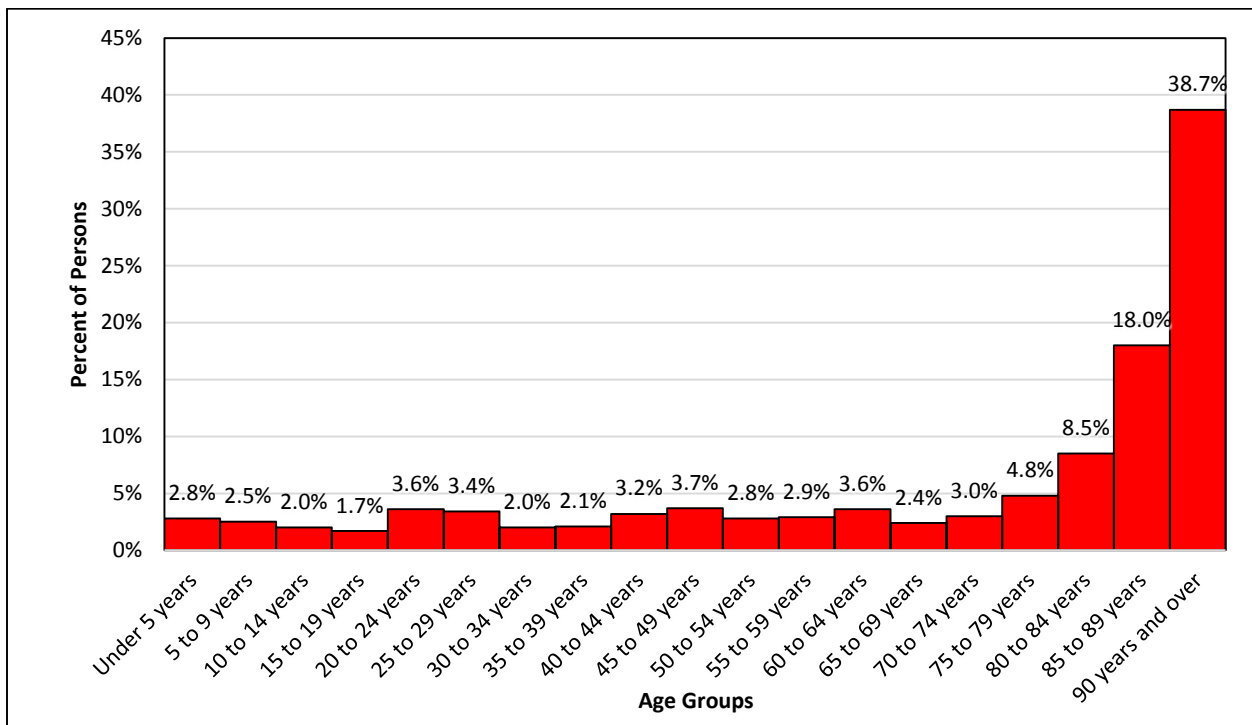
[http://www.faa.gov/airports/planning\\_capacity/passenger\\_allcargo\\_stats/passenger/](http://www.faa.gov/airports/planning_capacity/passenger_allcargo_stats/passenger/)

## Vehicle Access and Commuter Patterns

### Vehicle Access

The 2008-2012 American Community Survey from the U.S. Census Bureau shows that statewide about 5.8% of the households have no vehicle available. Figure 3 illustrates that this varies considerably by age of people living in households. Until about age 80 years, the percentage of persons with no vehicle available in their household varies between 2% and 5%. After age 80, the percentage increases rapidly. For persons aged 90 years and over, the percentage with no vehicle available approaches 40%.

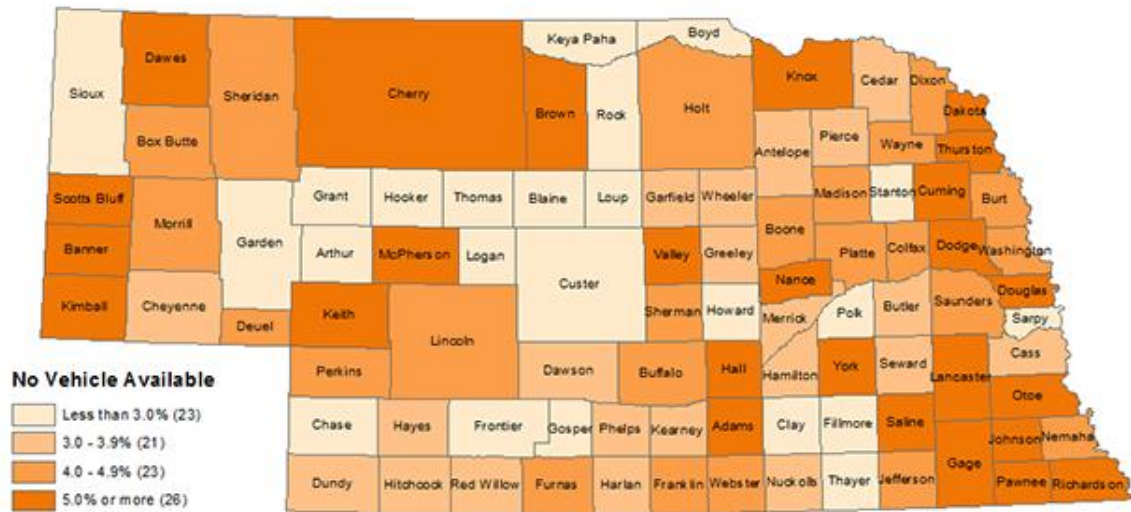
**Figure 3. Percentage of Persons Living in Households with No Vehicle Available by Age, Nebraska: 2008-2012**



Source: U.S. Census Bureau, 2008-2012 American Community Survey Public Use Microdata File; prepared by UNO Center for Public Affairs Research, June 2014.

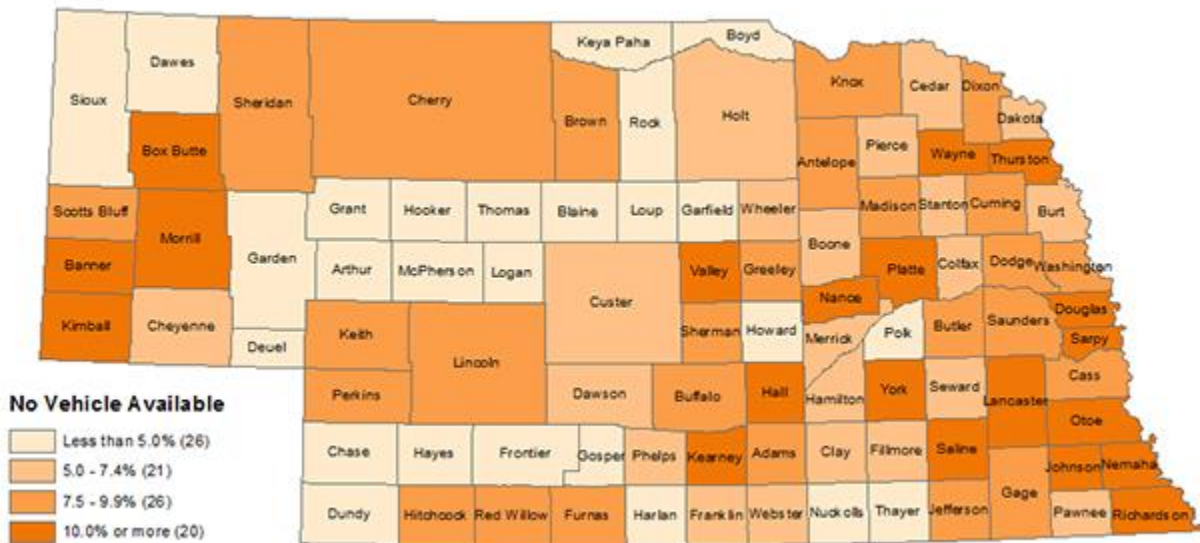
Figure 3 presents data for persons living in households. However, at the county level, data are available only for households. Figures 4 and 5 on the following page present data for all households and for households with a householder aged 65 years or older. Looking at Figure 4 shows, that in 29 counties, 5% or more households do not have access to a vehicle. Figure 5 shows, that in 29 counties, 9% or more of households with a householder aged 65 years or older do not have access to a vehicle. Comparing Figures 4 and 5 to Figure 1 shows that many of the counties with relatively high percentages of households with no vehicle available are also counties with no rural public transit.

**Figure 4. Percent of Households with No Vehicle Available, Nebraska: 2008-2012**



Source: U.S. Census Bureau, American Community 2008-2012 Survey 5-Year Estimate; prepared by UNO Center for Public Affairs Research, June 2014

**Figure 5. Percent of households with Householder Aged 65 years or older with No Vehicle Available, Nebraska: 2008-2012**



Source: U.S. Census Bureau, American Community 2008-2012 Survey 5-Year Estimate; prepared by UNO Center for Public Affairs Research, June 2014

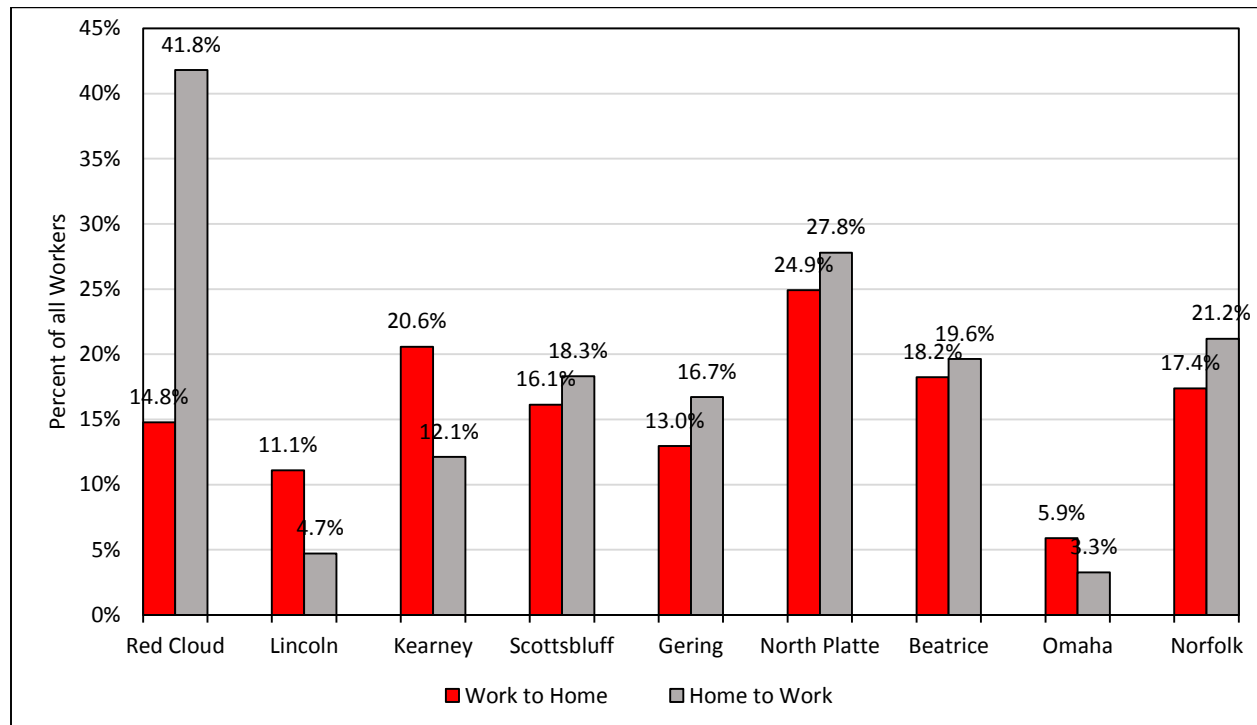
**Commuter Patterns**

Figure 6 shows that many workers in Nebraska live considerable distances from where they work. In fact, 41.8% of the people who live in Red Cloud and are employed, work more than 50 miles from their residence. North Platte is interesting because about one-fourth of the people working in North Platte

live more than 50 miles from their work, and about one-fourth of the workers living in North Platte live more than 50 miles from their job.

Although the percentages may not be as large, Omaha and Lincoln have sizeable numbers of workers who live more than 50 miles from where they work. For Omaha, there are 17,345 workers, and for Lincoln, the number is 16,816 workers who live more than 50 miles from where they work.

**Figure 6. Workers with 50 Miles or More between Place of Work and Place of Residence as a Percentage of All Workers, Nebraska: 2011**



**Definitions:**

Work to Home--People who work in named city but live elsewhere.

Home to Work--People who live in named city but work elsewhere.

Source: U.S. Census Bureau, Center for Economic Studies, LEHD, June 2014; prepared by UNO Center for Public Affairs Research, July 2014

**Summary and Conclusions**

Census data indicate that individuals in Nebraska who are low income, elderly, or disabled are less likely to have access to a vehicle to reach critical services such as medical care. Currently, many Nebraska residents lack access to community public transportation in any form, while intercity bus transportation is severely limited across the majority of the state. To begin to address these concerns, enhanced communication, coordination, and connectivity between transit providers such as planning agencies, cities and counties, and public or private non-profit organizations is a crucial first step. In addition, promising mobility management strategies, such as the coordination of existing transportation services with Medicaid transportation, should also be explored and considered. Enhancements such as expanded on-demand transit service throughout the state, additional feeder routes to the state’s larger

metropolitan cities, and greater access through intercity bus routes are also critical steps to addressing the transportation needs of Nebraska's underserved populations.

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# **Adults with Mental Health Disabilities and Their Caregivers in Nebraska: An Overview**

Karen Ann Rolf, PhD  
Grace Abbott School of Social Work  
University of Nebraska at Omaha  
October 2014

## **Introduction**

This report provides an overview of adult mental health in Nebraska. Three specific issues are explored. First, Nebraska population ratings of mentally unhealthy days are examined compared to the United States. Second, trends in the number of adults receiving Social Security Disability Income for mental health disorders are examined. Finally, the living arrangements of adults with mental health disabilities and their adult caregivers are described.

## **Data Sources**

Three data sources were used to generate this report: the Behavioral Risk Factors Surveillance System (BRFSS), Annual Statistical Reports on the Social Security Disability Program, and the Survey of Income and Program Participation (SIPP). Multiple years from each of these data sources were used for trend analysis. In some cases, the observations from several years were pooled by year to increase sample size. These combinations are described in the relevant sections.

## **Mental Health in Nebraska**

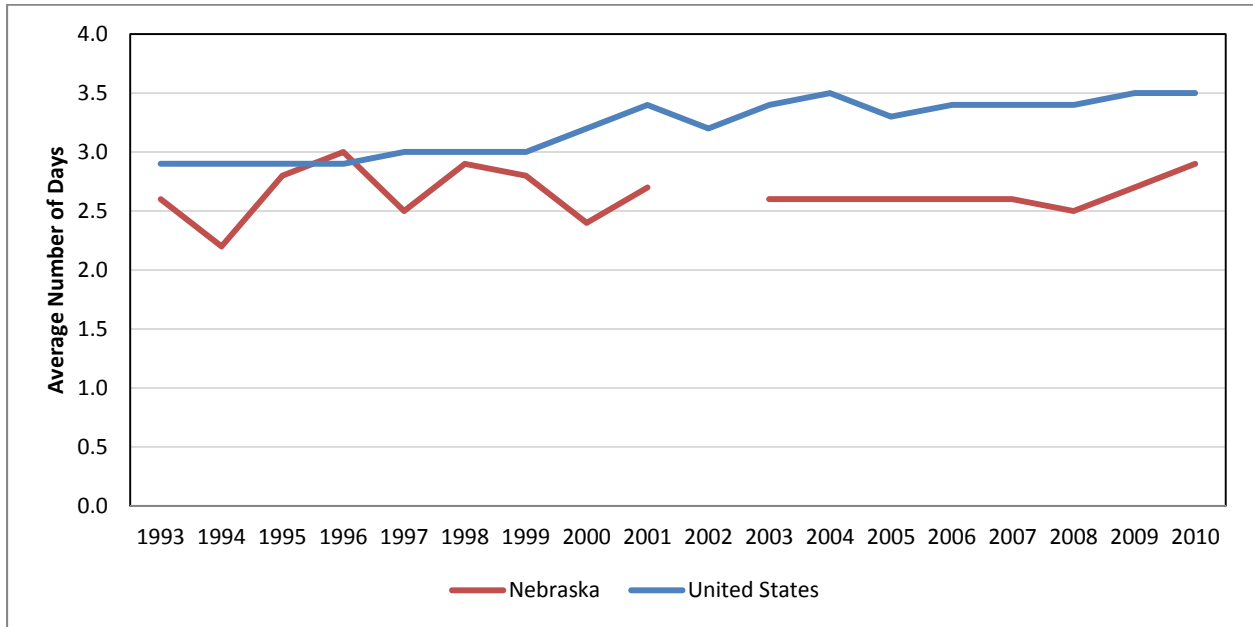
Data from the Behavioral Risk Factors Surveillance System (BRFSS) was used to describe the mental health of adults in Nebraska between 1993 and 2010 on several dimensions of mental health. The Centers for Disease Control and Prevention (CDC) calls these “Healthy Days Measures.” States use these measures to track overall progress on achieving Healthy People 2020 goals (<http://www.healthypeople.gov/2020/default.aspx>). These included: the average number of mentally unhealthy days in the past 30 days, and the percent of the population who had 14 or more mentally unhealthy days over the past month. Comparisons to the United States population were also made. While these measures are self-reported, the CDC estimates that they have a good response rate, reliability, and validity (<http://apps.nccd.cdc.gov/HQRL/>).

### **Average Number of Mentally Unhealthy Days**

The BRFSS asks respondents how many days during the previous 30 days was their mental health (including stress, depression and problems with emotions) “not good.” Figure 1 shows that Nebraskans reported fewer mentally unhealthy days than Americans. The average number of days per Nebraskan fluctuated between 2.2 and 3.0. This rate was lower than that of the average American, which ranged between 3.0 and 3.5.

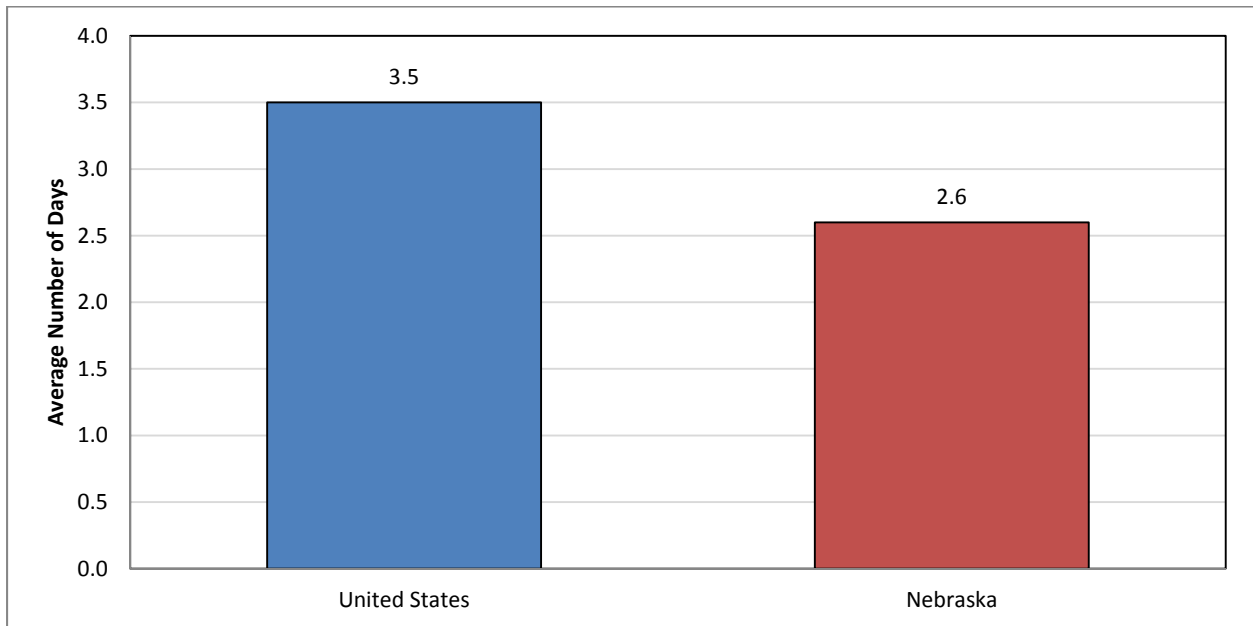
To increase the number of observations, the survey years of 2006 through 2010 were combined. These combinations are used in the BRFSS reports. When examining the average mentally unhealthy days reported, the same trends observed in Figure 1 were observed. The average number of mentally unhealthy days in the past 30 days for the average adult in Nebraska was 2.6. This was compared to an average of 3.5 days for the average adult in the United States. These results are shown in Figure 2.

**Figure 1. Average Number of Mentally Unhealthy Days, Nebraska and the United States: 1993-2010**



Note: 2002 data were unavailable for Nebraska. Source: Centers for Disease Control and Prevention. Behavioral Risk Factor Surveillance System Survey Data, 2003-2012.

**Figure 2. Average Number of Mentally Unhealthy Days, Nebraska and the United States: 2006-2010**

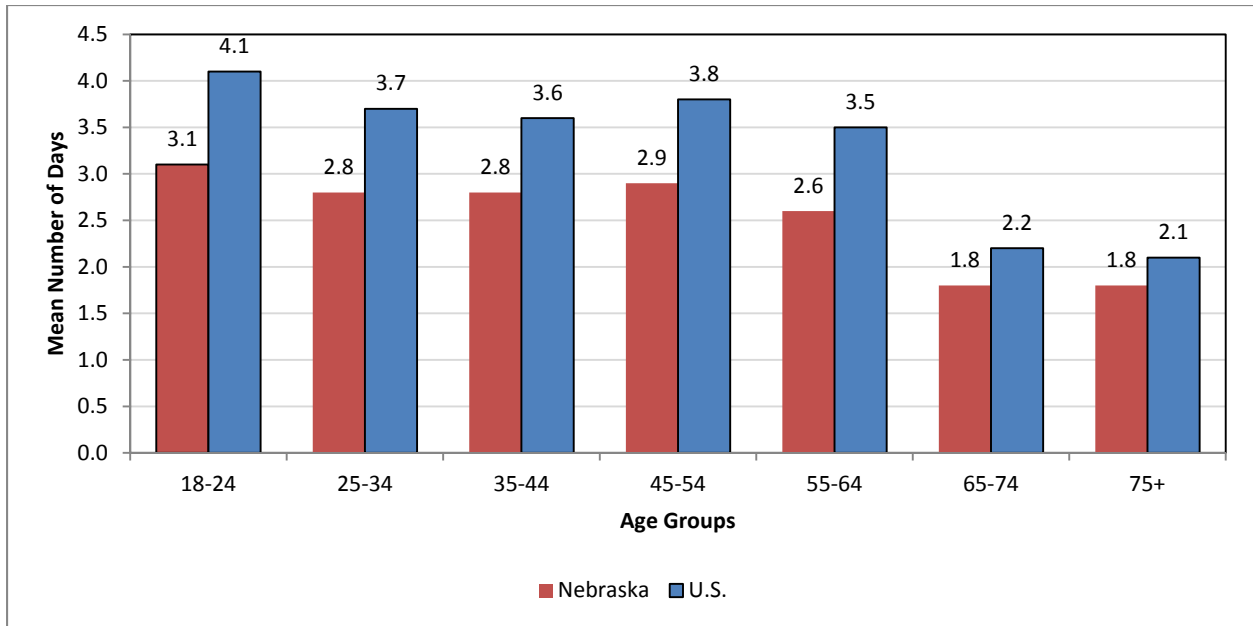


Source: Centers for Disease Control and Prevention. Behavioral Risk Factor Surveillance System Survey Data, 2003-2012.

### Average Number of Reported Mentally Unhealthy Days by Age Group

The next set of analyses broke down the average number of mentally unhealthy days by age group for the 2006-2010 period. The results of this analysis shows that, in general, younger adults report more mentally unhealthy days than older adults. From the ages of 18 to 75, the average number of mentally unhealthy days reported decreased from 3.1 to 1.8 for Nebraskans. Younger Americans reported more mentally unhealthy days, but older adults reported fewer of these days. These results are shown in Figure 3.

**Figure 3. Average Number of Mentally Unhealthy Days by Age Groups, Nebraska and the United States: 2006-2010**



Source: Centers for Disease Control and Prevention. *Behavioral Risk Factor Surveillance System Survey Data, 2003-2012.*

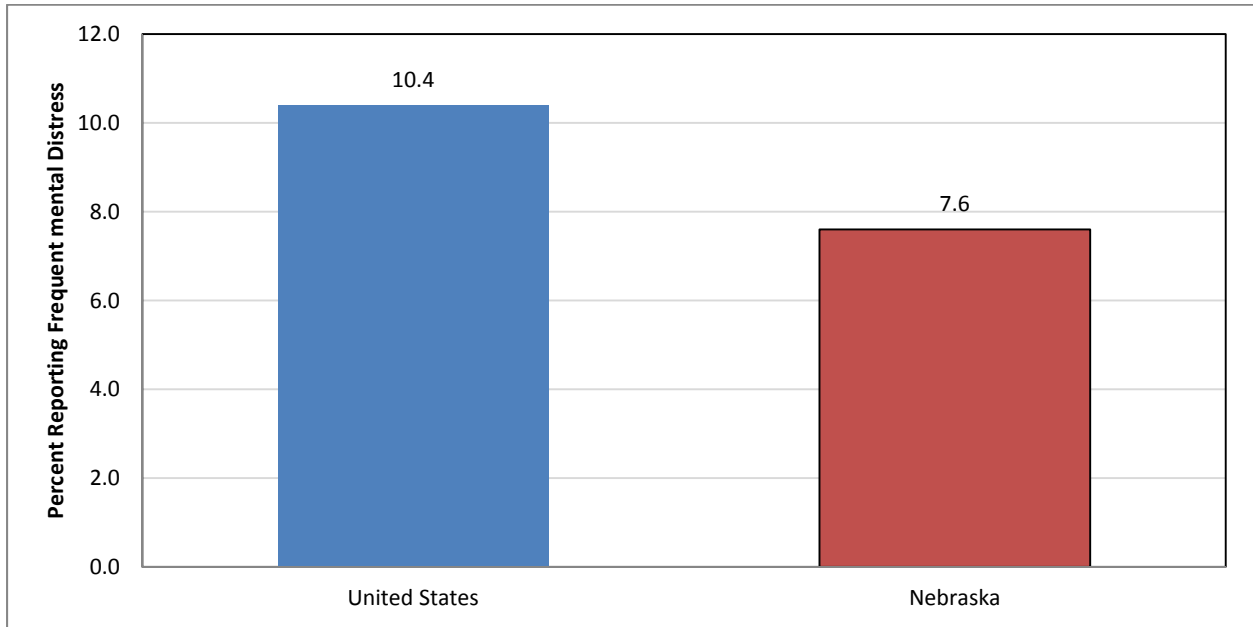
### Frequent Mental Distress

The BRFSS defines mental distress as fourteen or more days during the past 30 days when mental health was reported as “not good.” Using this definition, 7.6% of Nebraskans reported frequent mental distress, whereas 10.4% of Americans reported frequent mental distress, during the 2006-2010 period. The combined years of 2006-2010 are shown in Figure 4 for Nebraska and the United States.

### Frequent Mental Distress by Age Group

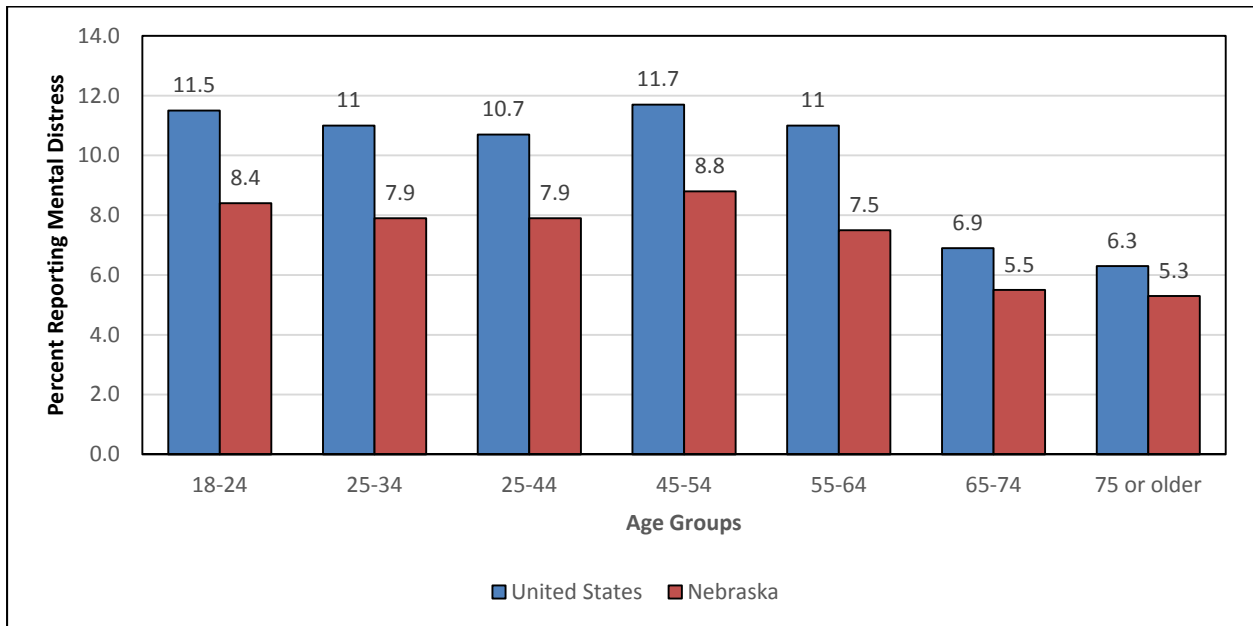
The next set of analyses examined frequent mental distress (14 or more days over the past 30 days) by age group for Nebraska and the United States. The results show that reported mental distress in both Nebraska and the United States declines with age. Approximately, 8.0% of the youngest adults reported frequent distress, compared to 5.3% of the oldest adults. The trend toward declining mental distress with age was found for the United States as well. However, the level of mental distress found among adults is significantly lower in Nebraska. These results are shown in Figure 5.

**Figure 4. Percentage Reporting Frequent Mental Distress, Nebraska and the United States: 2006-2010**



Source: Centers for Disease Control and Prevention. Behavioral Risk Factor Surveillance System Survey Data, 2003-2012.

**Figure 5. Percentage Reporting Frequent Mental Distress by Age Groups, Nebraska and the United States: 2006-2010**



Source: Centers for Disease Control and Prevention. Behavioral Risk Factor Surveillance System Survey Data, 2003-2012.

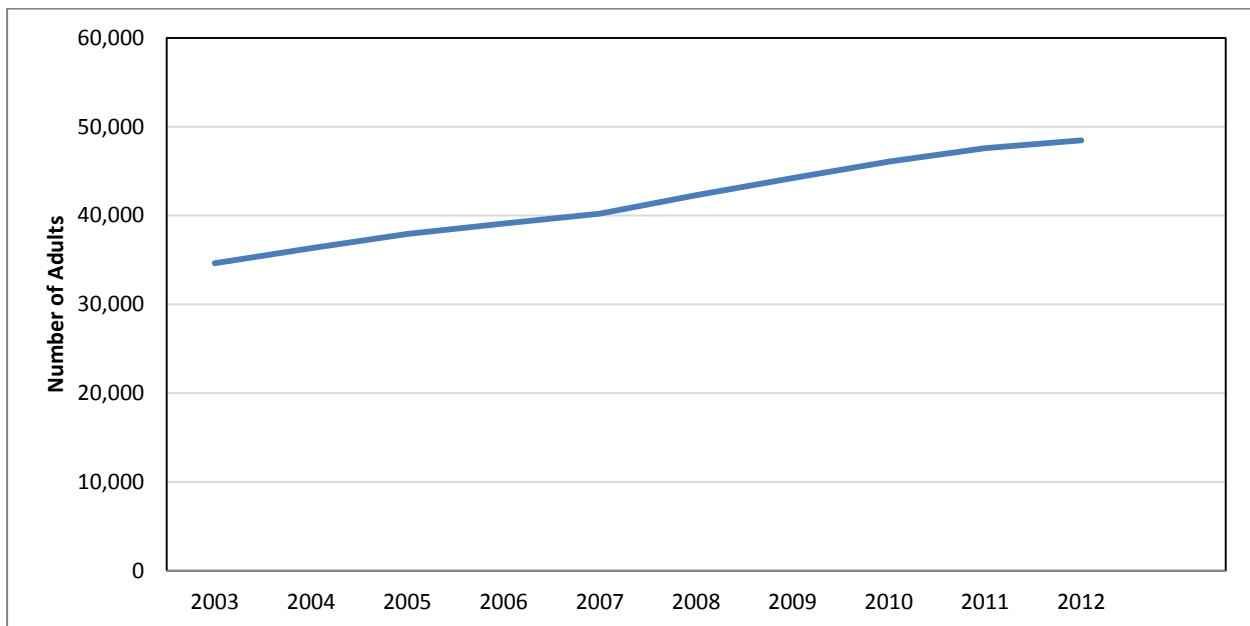
### Trends in Social Security Disability Insurance Program Receipt for Mental Health

This section examines trends in participation in the Social Security Disability Insurance (SSDI) program for adults reporting mental health diagnoses. The *Annual Statistical Reports on the Social Security Disability Insurance Program 2003 to 2012* were used to examine these trends. The analyses excluded individuals who were identified with intellectual disabilities.

Over the past two decades, the fraction of individuals receiving SSDI benefits has risen dramatically (Autor and Duggan, 2006). The two categories that have increased most are individuals diagnosed with back pain and mental illness. This is a concern because these conditions increase the average duration of disability spells and the size of the recipient pool. Autor and Duggan (2003) note that the ratio of SSDI (combined with Medicare benefits) to earnings has risen. They maintain that SSDI applications are in direct response to adverse labor market shocks suggesting that a growing number of discouraged and displaced workers are seeking disability benefits.

Overall, the number of adults receiving SSDI in Nebraska increased from 34,635 in 2003 to 48,474 in 2012. This represents a 39% increase for Nebraska from 2009 to 2012. The disability rolls across the United States have increased dramatically as well. In 2003, 6,830,714 individuals were receiving SSDI. By 2012, 10,088,739 were receiving SSDI. This represents a 33% increase. Figure 6 shows these results.

**Figure 6. Number of Adults Receiving Social Security Disability Insurance, Nebraska: 2003-2012**

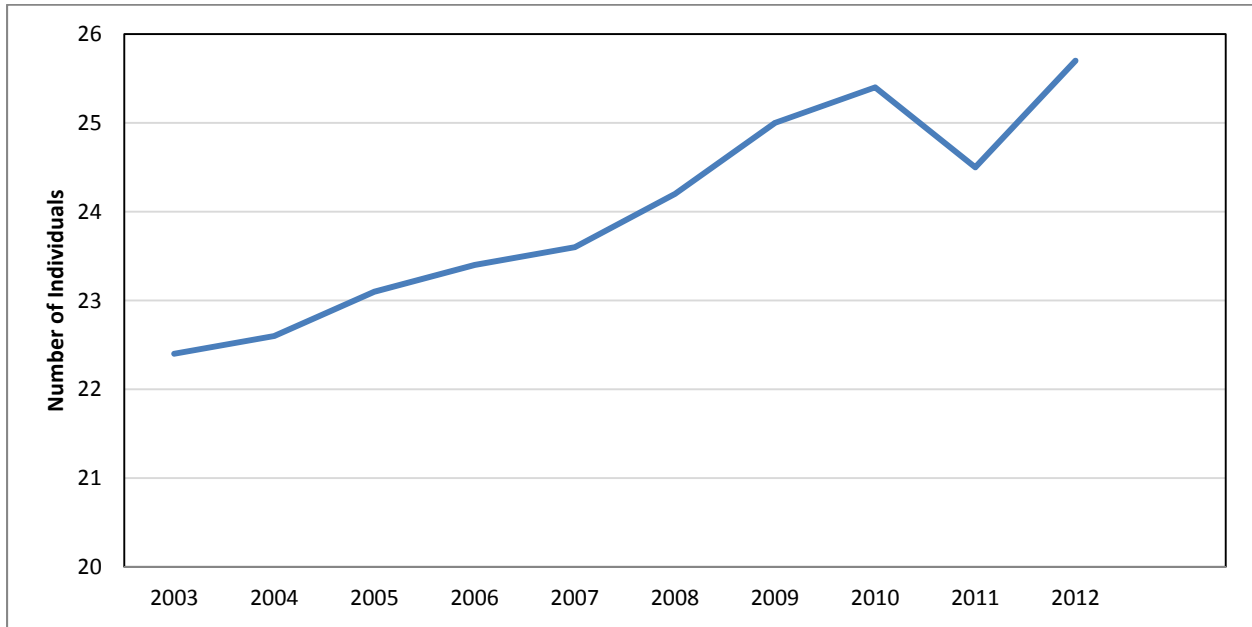


Source: Annual Statistical Reports on the Social Security Disability Insurance Program 2003 to 2012

### Percentage of Nebraskans Receiving SSDI for Mental Health Disability

Similarly, the percentage of Nebraskans on SSDI with a mental health disability increased from 22.4% in 2003 to 25.7% in 2012. This is less than the increases in the United States during this period. The percentage of individuals in the United States receiving SSDI for mental health issues increased by 51% during the same time period. This change is shown in Figure 7.

**Figure 7. Number of Individuals Receiving Social Security Disability Insurance for a Mental Health Disability, Nebraska: 2003-2012**



Source: Annual Statistical Reports on the Social Security Disability Insurance Program 2003 to 2012

### Adults with Mental Health Issues Living with Parents and Caregivers in Nebraska

Finally, the Survey of Income and Program Participation (SIPP) was used to examine the living arrangements of adults with mental health disabilities. The 1996, 2001, 2004, and 2008 panels were combined for this report in order to increase the sample size for Nebraska.

Approximately three percent (2.7%) of all adults in Nebraska who have mental health disabilities—or 4,407 individuals—are living with an older adult. Interestingly, individuals with a co-morbid condition, such as learning disabilities or mental retardation, were slightly less likely to live with an older adult caregiver (2.0% or 3,239 individuals). Figure 8 shows these results.

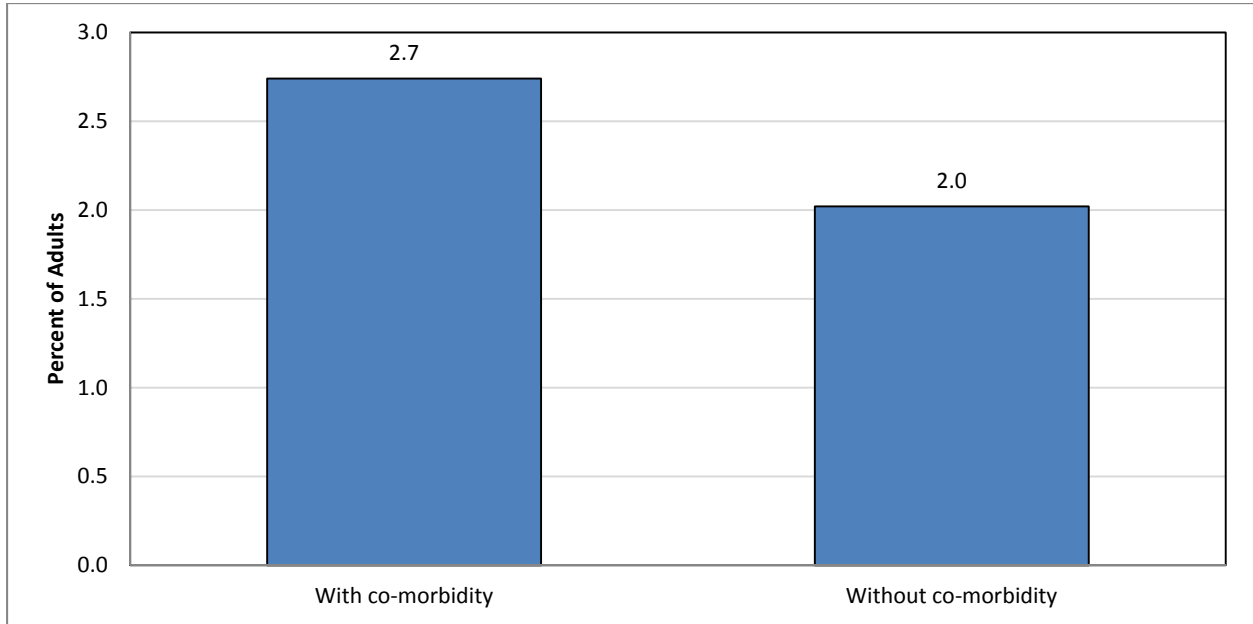
Basic descriptive statistics were calculated to show that the majority of individuals who are living with their caregivers are between the ages of 25 and 45. Approximately 58.6% of all individuals are between the ages of 25 and 45.

The next set of analyses examined the caregivers of the adults with the mental health disabilities. Approximately 10% of the adults with mental health disabilities have caregivers who live in their homes. The caregiving arrangements are varied in the households where an adult child with a mental health disability is living with their parent or grandparent. The majority of individuals are cared for by spouses (36.8%), followed by parents or grandparents (20.4%). This represents over one-half of the caregiving arrangements. Other caregiving arrangements are shown in Figure 10.

An analysis of the caregiving households (where the caregiver lives in the household) for adults with mental health disabilities shows that 65% of the caregivers are female, their mean age is 48.8 years with a range of aged 22 years to 87 years. The median household monthly income is \$3,986. Household income ranged between \$306 and \$15,835 per month. This research shows that caregivers for adults

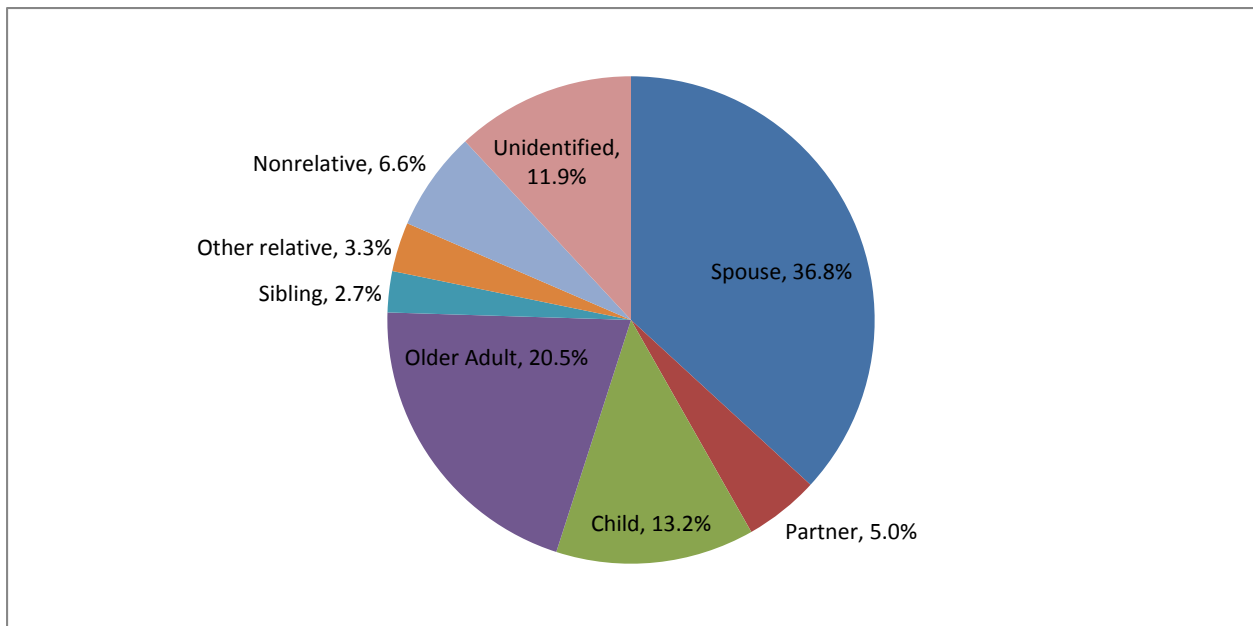
with mental health disabilities are more varied and younger than caregivers of adult children with other disabilities.

**Figure 8. Percentage of Adults with a Mental Health Disability Living in an Older Adult Households by Co-morbidity, Nebraska: 1996-2008**



Source: Survey of Income and Program Participation, 1996, 2001, 2004, 2008

**Figure 10. Percentage of Adults with Mental Health Disabilities by Caregiver Type, Nebraska: 1996-2008**



Source: Survey of Income and Program Participation, 1996, 2001, 2004, 2008

## **Summary**

Data from three national sources were used to provide an overview of mental health among adult Nebraskans, program participation for individuals with mental health disabilities, and living arrangements of adults with mental health disabilities. The results from these analyses are mixed. Overall, they suggest that:

- Nebraskans report better mental health than the average American.
- The tendency to report better mental health increases with age.
- Despite these results, the uptake of SSDI for individuals with mental health disabilities has increased steadily since 2003. This reflects a national trend.
- Adults with mental health disabilities living with parents or grandparents (older adults) are most likely to be middle-aged.
- One out of ten adult with a mental health disability reports that a household member helps them with activities of daily living. These household members are most likely spouses or the older adults. This suggests that these households with older adults and adults with mental disabilities may include a number of family members.

## **Conclusions and Implications**

Nebraskans report better mental health than the average American. This information is congruent with other information we have about the overall health and average life expectancy of Nebraskans.

Inconsistencies are noted, however, between citizens' ratings of mental health, national data on mental health disability and the current trends in SSDI enrollment for Nebraskans. These increases are not unique to Nebraska and can be found throughout the United States. An increased number of individuals are applying for SSDI under the diagnosis of mental health disability. While this may reflect some increase in disability, it may also provide information about low-wage workers' chances in the labor market. While SSDI is a federal program, further exploration of this issue at the state level may benefit individuals with mental health disabilities who could participate in the economy and have a chance at mobility in the workforce. In addition, research has shown that employment is beneficial for individuals with mental health disabilities because of the structure and opportunities for socialization that it brings.

Finally, the research on adults with mental health disabilities suggests that they are less likely to live with their older adult caregivers than other individuals with disabilities we have observed. Those who do reside at home, however, need assistance with activities of daily living and may represent a more impaired group. Both the adults and caregivers in these homes are younger than other caregiving households we have observed in Nebraska. Home and Community Based Waiver eligibility may need to be examined for adults with mental health disabilities and their caregivers.

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## Program Evaluation of the Avenue Scholars Foundation

Jeanette Harder, PhD  
with  
Emily Nguyen, MSW, MPA and  
Christiana Bratiotis, PhD  
Grace Abbott School of Social Work  
Support and Training for the Evaluation of Programs (STEPS)  
University of Nebraska at Omaha

and with  
Jef Johnston, PhD  
Chief Operating Officer, Avenue Scholars Foundation  
November 2014

### Context: Relationships between Poverty and Education for Children

The lives and futures of children are significantly influenced by education as well as by their families and communities. As we might expect, the more education parents have, the less likely their children will grow up in poverty. Indeed, only 10% of children in Nebraska who had a parent with some college education are growing up poor, and 30% of children who had a parent with a high school degree (see Figure 1). In contrast, **nearly half (48%) of children who had a parent who did not earn a high school degree are growing up poor**. This means that 48% of the 19,313 children in Nebraska who have a parent with less than a high school degree live below 100% of the Federal Poverty Level. (For 2012, the federal poverty threshold was \$23,283 for a family of four.) Overall, 18% of children in Nebraska live in poverty, which is less than the national average of 22%.<sup>1</sup>

One zip code in North Omaha, 68111, has a very high child poverty level—this zip code also has the highest proportion of youth served by Avenue Scholars. In this 5.2 square mile area with over 23,000 people (in 2010)<sup>2</sup>, **59% of children are living below the poverty line**, compared to 19% of children in Douglas County, 17% of children in Nebraska, and 21% in the U.S. Fewer adults aged 25 or older living in this zip code have a high school education—79% compared to 90% in both Douglas County and Nebraska as a whole, and 86% in the U.S. **The median household income in 68111 is especially striking: \$24,000**, when compared to median household incomes from \$51,000 to \$53,000 in Douglas County, Nebraska, and the U.S. (see Figure 2).<sup>3</sup>

High school graduation rates in the seven high schools served by Avenue Scholars Foundation ranged from 64% at Omaha Northwest Magnet High School to 90% at Millard South High School, compared to 88% statewide. Percent of Free and Reduced Lunch (FRL) students (families at 130% of the Federal Poverty Level qualify for free lunch, and at 185% for reduced lunch) at these same seven schools ranged from 28% at Millard South and 87% at Omaha South High Magnet School.<sup>4</sup>

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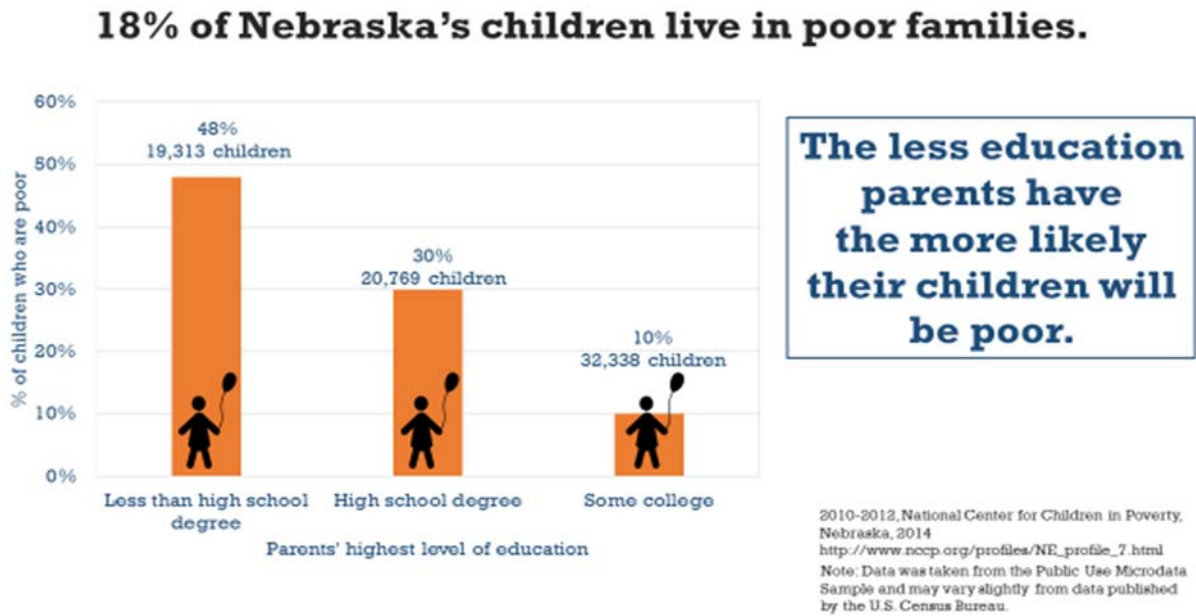
<sup>1</sup> 2013 American Community Survey; 2010-2012, National Center for Children in Poverty, Nebraska (2014).

<sup>2</sup> Retrieved from <http://www.city-data.com/zips/68111.html>

<sup>3</sup> 2008-2012 American Community Survey.

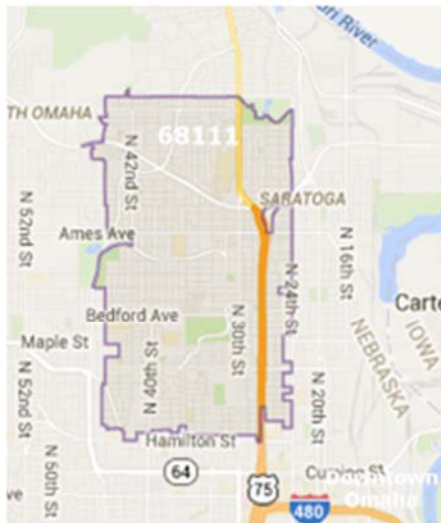
<sup>4</sup> Nebraska Department of Education, 2012.

**Figure 1. Relationship between Parents' Education and Children in Poor Families, 2010-2012**



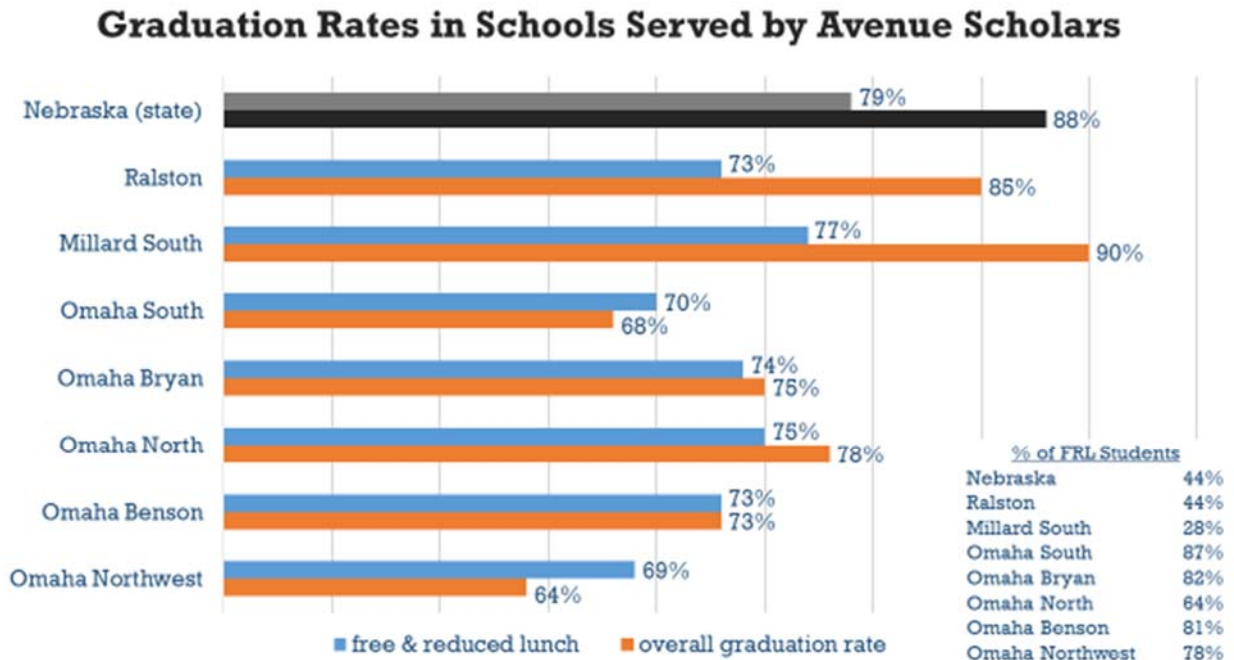
**Figure 2. Education and Poverty in Zip Code 68111 (in North Omaha), 2008-2012**

**One zip code in north Omaha, 68111, has the highest proportion of youth served by Avenue Scholars, and has a very high poverty level.**



	68111	Douglas County	Nebraska	U.S.
Adults aged 25 or older with a high school education or higher	79%	90%	90%	86%
Median household income	\$24,306	\$53,295	\$51,381	\$53,046
Children living below the poverty line	59%	19%	17%	21%

**Figure 3 Graduation Rates in Schools Served by Avenue Scholars**



While the overall high school graduation rates vary considerably (26 percentage point difference between schools), the graduation rates for FRL youth are more consistent and are typically lower; they range from 69% at Omaha Northwest, to 77% at Millard South (only an eight percentage point difference between schools).<sup>5</sup>

Youth who grow up in poverty face many challenges in pursuing post-secondary education. **Only 57% of low-income high school graduates in Nebraska attended an institution of higher education in the U.S.** within 12 months of high school graduation, as compared to 77% of non-low-income graduates.<sup>6</sup>

**Context: Avenue Scholars Foundation**

In 2008, a group of philanthropists and educators came together to assist low-income youth in Omaha in escaping generational poverty and formed the Avenue Scholars Foundation. Avenue Scholars’ mission is “to ensure careers for students of hope and need through education and supportive relationships.”<sup>7</sup> The complex context from which Avenue Scholars arises requires a complex response. To facilitate success for more than 600 students, Avenue Scholars partners with private and public institutions, including three public school districts (Omaha, Millard, Ralston), seven high schools, a public community college (Metropolitan Community College), a four-year university (University of Nebraska at Omaha), and private businesses.

<sup>5</sup> Nebraska Department of Education, 2012.

<sup>6</sup> 2014 Nebraska Higher Education Progress Report.

<sup>7</sup> Avenue Scholars Foundation, 2014.

**Avenue Scholars was created to meet the educational needs of youth who were low income and low achieving in high school (2.50 GPA or lower).** Program leadership realized that financial support alone would not be enough to move youth through high school and college to a career. Therefore, Avenue Scholars provides supportive relationships and positive role models to help youth succeed and persist. The key component of the Avenue Scholars program is the supportive mentoring relationship between the youth and the Talent Advisor. Talent Advisors practice an “intrusive” or “appreciative” model of mentoring. Through relationships, Talent Advisors help youth get a hopeful glimpse of something beyond their community contexts and set realistic, attainable educational and career goals.

Much of the supportive mentoring is initially classroom-based as Talent Advisors teach high school students a curriculum focused on developing individual strengths, career readiness, and independent living skills. Selected during their sophomore year in high school and beginning receipt of services as high school juniors, youth move through the program in cohorts, receiving high school, college, and career services. The long-range goal of Talent Advisors is to help youth stay on the pathway to high school graduation, postsecondary study, if applicable, and career success.

### **Program Evaluation of Avenue Scholars: Quantitative Findings, To-Date**

Program evaluations “describe and assess what was intended (goals and objectives), what happened that was unintended, what was actually implemented, and what outcomes and results were achieved.”<sup>8</sup> Program evaluation results are used to help programs meet their mission, to inform program stakeholders, and to gain support for the program.

Avenue Scholars invited Support and Training for the Evaluation of Programs (STEPS), a UNO organization led by Dr. Jeanette Harder, to evaluate Avenue Scholars in August of 2012, and has a signed agreement with Avenue Scholars through August 2016. This long-term relationship allows STEPs to have an in-depth understanding of the Avenue Scholars program.

The foundation for the evaluation of Avenue Scholars was laid through a professional literature review—we looked for information on similar programs in order to learn about their program models and their evaluation methodologies (research designs, measurement tools, sampling). We discovered that the combination of serving low-income and low-performing students was unique as was the goal of moving students from high school to college to career. We used what we learned to determine a methodology for evaluating the Avenue Scholars program.

STEPS has conducted quantitative analyses on Avenue Scholars’ youth, including school district data such as grades, grade point averages (GPA), and attendance data. Quantitative data has also been analyzed using program data on persistence in the program as well as results of valid and reliable measurement tools: the Adult Dispositional Hope Scale, the Emotional Quotient Inventory, and the School Success Profile. STEPs has also analyzed data from several in-house employment, satisfaction, and college transition surveys.

#### **QUANTITATIVE DATA**

*School district data:  
grades, GPA, and  
attendance.*

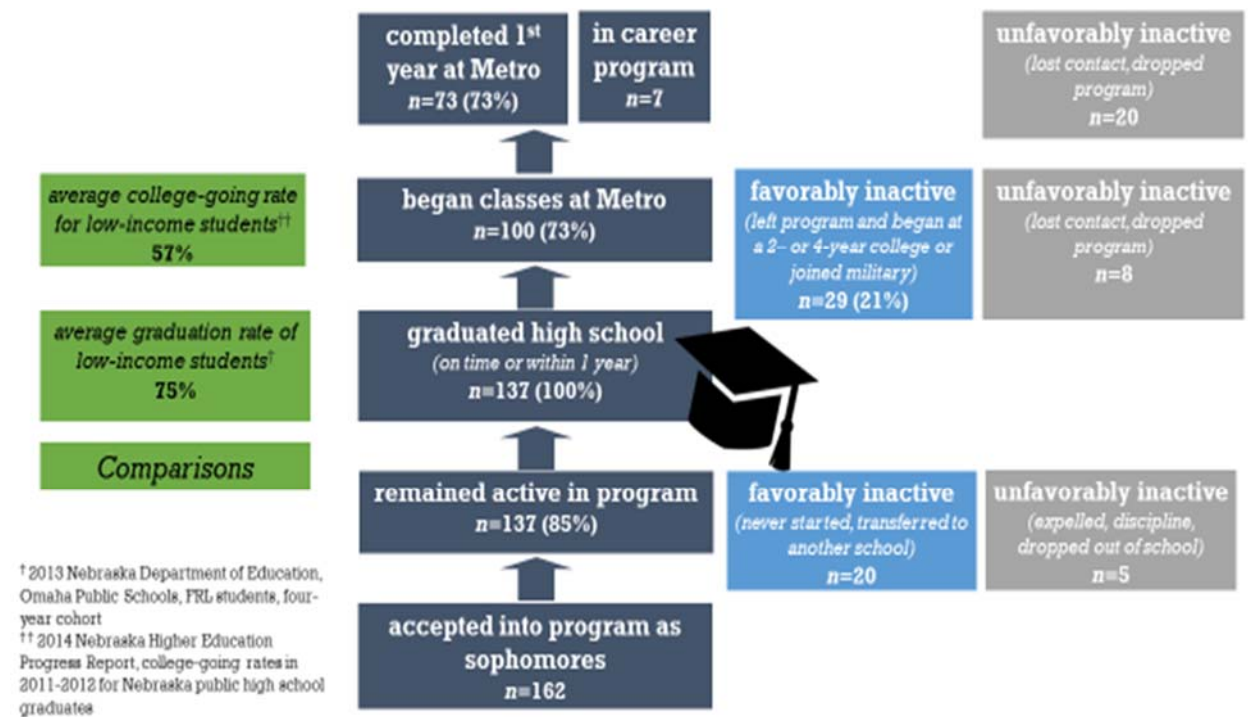
*Program data:  
program persistence,  
valid and reliable  
measurement tools.*

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<sup>8</sup> Quinn Patton, 2012, p. 3.

Figure 4 shows an overview of quantitative analyses on the cohort of Avenue Scholars youth who were expected to graduate from high school in May 2013. As shown, 162 sophomores were accepted into the Avenue Scholars program in Spring 2011. Of these youth, 137 remained active in the program through high school (20 youth went “favorably inactive,” as they did not start the program and/or transferred to another school; 5 youth went “unfavorably inactive” as they were either expelled from school, dismissed because of poor behaviors, or dropped out of school). Of those youth who remained active, **100% graduated high school in May 2013** (or within one year of May 2013). **This 100% graduation rate can be compared to the 78% graduation rate of low-income students in Nebraska<sup>9</sup>**—this rate is conservatively compared as Avenue Scholars selects youth who are not only low income, but also low performing academically. The 137 youth who were in the Avenue Scholars program and graduated from high school had the following gender and racial/ethnic characteristics: 78 (57%) female and 59 (43%) males; 49 (36%) Black or African American, 37 (27%) Latino or Hispanic, 33 (24%) White, and 18 (13%) Asian.<sup>10</sup>

**Figure 4. Persistence of Avenue Scholars’ Youth in the 2013 Cohort**



Of the 137 youth, 100 (73%) stayed in the Avenue Scholars program and began classes at Metropolitan Community College (Metro). In addition, 29 (21%) went “favorably inactive” in the program and enrolled at a two- or four-year college or joined the military. Combining these two percentages shows **94% of youth began college as compared to the average college-going rate of 60%** for the seven high schools participating in the Avenue Scholars program.<sup>11</sup>

<sup>9</sup> 2013 Nebraska Department of Education.

<sup>10</sup> “Latino or Hispanic” may be any race; Black or African American, White, and Asian categories are non-Hispanic (data gathered by school districts).

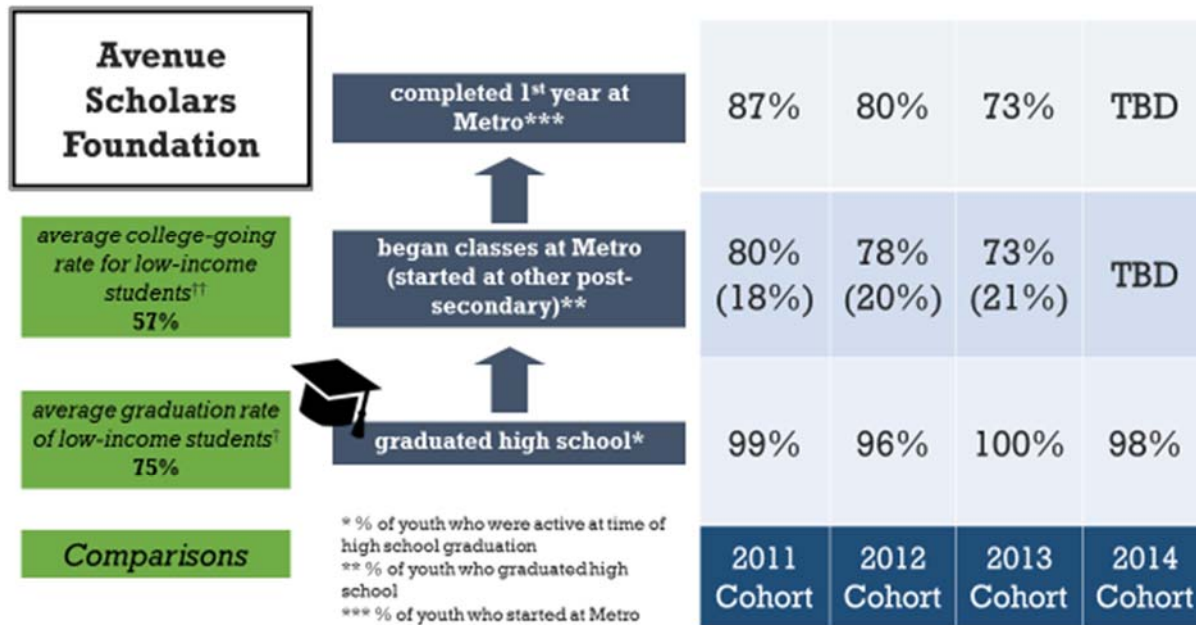
<sup>11</sup> 2014 Nebraska Higher Education Progress Report, college-going rates in 2011-2012 for Nebraska public high school graduates.



Of the youth who stayed in the Avenue Scholars program and started at Metro, 73 (73%) persisted through their first year of college. Additionally, 7 youth participated in Avenue Scholars' career services.

Other cohorts of Avenue Scholars youth have shown similar educational persistence rates. High school graduation rates have ranged from 96% to 100%, beginning college rates have ranged from 73% to 80%, and completing the first year at Metro has ranged from 73% to 87% (see Figure 5).

**Figure 5. Graduation and College-Going Rates for Avenue Scholars Youth**



<sup>†</sup> 2013 Nebraska Department of Education, Omaha Public Schools, FRL students, four-year cohort

<sup>††</sup> 2014 Nebraska Higher Education Progress Report, college-going rates in 2011-2012 for Nebraska public high school graduates

**Program Evaluation of Avenue Scholars: Qualitative Findings, To-Date**

STEPS has also utilized qualitative methods as a way of hearing the voices of youth and their families, and their perceptions of Avenue Scholars. In Spring 2013, 14 focus groups were held, with juniors and seniors in the seven participating high schools.

Overall, youth reported that Avenue Scholars was having a positive impact on their lives, and that relationships were the key: relationships with Avenue Scholars Talent Advisors, other Avenue Scholars youth, and with the program as a whole. These relationships instilled hope for the future, created a pathway to college and career, and confirmed a belief that they could accomplish their goals.

**QUALITATIVE DATA**

- High school focus groups
- Parent/caregiver interviews

*"They just really keep me motivated because I could be feeling so down one day and they will just say something to me that just makes me like pick your head up, you can do this, you're gonna make it. They just keep me motivated somehow to succeed, to get through college, to keep doing my high school work...."*



*"Avenue Scholars gave me hope. It gave me thousands of possibilities for my future."*

*"It's just like overwhelming joy that they can have that kind of heart. Because you don't find that many people with those hearts these days. The hearts that actually care, the people that actually do care is what makes a child's life better...."*

*"Who knew that a family could be made in a classroom?...."*

STEPs also interviewed parents and caregivers of high school- and college-aged youth in the Avenue Scholars program. Through these 79 interviews, it was clear that parents saw the benefits of education for their children and that they appreciated the work of Avenue Scholars. Parents spoke of their involvement in their children's education, both at home and at school, and expressed barriers of transportation, language, and homework assistance, and the barrier of finances for their children enrolling in college. Parents spoke of their high appreciation for how Avenue Scholars is helping their children with education and careers.

*"Well, like I tell... told both of my grandkids, you know, 'cause I'm their guardian. Nowadays, you need a high school diploma to even get a job. And, um, you're going to get a better job if you go to college. And, you don't want to work for Walmart like I do."*

*"I see her have that great sense of pride when she puts on that Avenue Scholars shirt... She sees it as a very positive thing and um, it's one of the few times that I don't really have to get her up in the morning and she can um, it's making her more self-sufficient, which is great. Um, you know, every child is so individual but her specifically, it just, it seems to um, motivate her to do well."*

## **Cost-Benefit Analysis**

STEPs also conducted an initial cost-benefit analysis for Avenue Scholars' 2012 cohort. The program costs for the 149 students were calculated over the two years students were enrolled in the high school program. Out of the 149 students enrolled, 6 students did not graduate, resulting in 143 students who were in the program and graduated from high school. Of the 149 students who were in the program, the expected number to graduate was 110 students.<sup>12</sup> This results in 33 additional students who graduated and may not have without Avenue Scholars. Program benefits were calculated for these 33 students. Calculated short-term benefits include increase in income, increase in sales and income taxes paid, decrease in use of the Supplemental Nutrition Assistance Program (SNAP), and decrease in use of public assistance. Long-term benefits also included decrease in crime and incarceration costs. All benefits were calculated using a 3% discount rate to show their opportunity value.

Table 1 provides an overview of the program costs and benefits. The overall net benefits were positive in both the short term (10 years) and long term (40 years). The short-term cost benefit ratio is 2.13, meaning that for every \$1 in program costs, there is expected to be \$2.13 in benefits in the short-term. The long-term cost benefit ratio is 5.89, meaning that for every \$1 in program costs, there are \$5.89 in benefits over the long-term.

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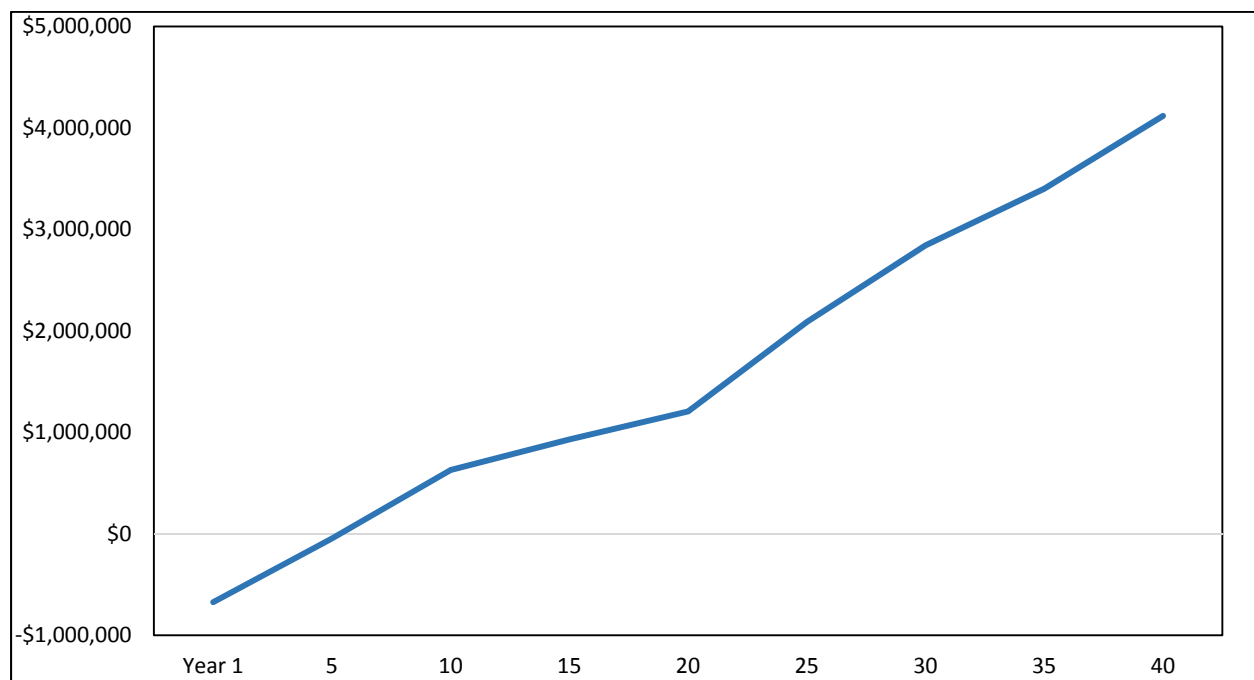
<sup>12</sup> Based on percentages published by the Nebraska Department of Education.

**Table 1. Overview of Costs and Benefits for 33 Students**

	SHORT-TERM		LONG-TERM	
	Individual	Societal	Individual	Societal
Increased income	\$1,643,058	--	\$4,434,983	--
Decreased use of public assistance	--	\$9,792	--	\$4,610
Decreased use of SNAP	--	\$77,185	--	\$108,737
Increase in income taxes paid	--	\$38,409	--	\$95,885
Increase in sales tax paid	--	\$28,754	--	\$78,675
Decrease in crime costs	--	--	--	\$22,398
Decrease in incarceration costs	--	--	--	\$221,799
Subtotal	\$1,643,058	\$154,140	\$4,434,983	\$525,827
Total Benefits	\$1,797,198		\$4,960,810	
Program Costs	\$842,000		\$842,000	
TOTAL NET BENEFITS	\$955,198		\$4,118,810	
BENEFIT-COST RATIO	2.13		5.89	

Figure 6 shows the cumulative benefits exceed costs by Year 5, and over the long-term, the cumulative net benefits continue to increase throughout an individual’s lifetime.

**Figure 6. Long-Term Cumulative Net Benefits**



**Avenue Scholars’ Program Evaluation: Next Steps**

STEPS and Avenue Scholars have worked together to identify many “next steps” for continued quantitative and qualitative evaluation. We have requested data from the Nebraska Department of Education on students who are similar to those served by Avenue Scholars in order to more accurately

compare educational outcomes for youth who have and have not participated in Avenue Scholars. We will continue to extend the longitudinal analyses of youth who participate in Avenue Scholars to look at both educational and career outcomes. We also plan to look at processes and outcomes for specific groups of youth; i.e. African-American males and youth who become parents.

### **Replicability of Avenue Scholars across Nebraska**

Avenue Scholars hopes to replicate their program across the State of Nebraska. Key program components include:

1. High school presence: an Avenue Scholars class in the high school(s);
2. Community college involvement: the ability for youth to move through community college in cohorts;
3. Funding; and
4. Program evaluation: ensure program fidelity and outcomes in each unique context.

### **Conclusion: Program Evaluation Plays a Critical Role**

Program evaluation is critically important for program delivery and outcomes. Program evaluation that is participatory and utilization-focused provides accountability and learning for the program and provides results that are authentic and useful. Both the process of doing program evaluation and the results raise questions and provide growth pathways. Program evaluation helps organizations to be more effective as they better serve clients, and more efficient as funds can be utilized in ways that produce positive results.

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# Urban and Rural Food Deserts in Nebraska

A. Bryce Hoflund, PhD  
School of Public Administration  
University of Nebraska at Omaha  
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## Introduction

Food deserts are a growing policy problem in rural and urban areas. There is, however, little agreement on what constitutes a food desert or their characteristics. Therefore, data about food deserts, while growing, remains limited. This is especially true for incipient food deserts—areas that could potentially become food deserts if grocery stores close and other means of accessing fresh, healthy foods becomes limited. Food deserts raise a range of policy questions related to health, social equity, and sustainability.

This policy brief draws on data collected by the United States Department of Agriculture’s Economic Research Service (USDA ERS) and academic research as well as sheds some light on food deserts in the state of Nebraska. The purpose of this brief is to define food deserts, discuss the characteristics of food deserts, and outline some of the impacts of living in a food desert.

## Definition of Food Deserts

The term “food deserts” was first used in Scotland in the 1990s, and the term spread to the United States shortly thereafter. Although there is disagreement over its definition, the USDA defines food deserts as urban neighborhoods and rural towns without ready access to fresh, healthy, and affordable food. Instead of supermarkets and grocery stores, these communities may have no food access or are served only by fast food restaurants and convenience stores that offer few healthy, affordable food options (sometimes referred to as a “food swamp”). The concept of ‘food deserts’ encompasses several aspects of food access: retail availability of fresh foods, economic affordability, and cultural acceptance of available foods.

The Food, Energy, and Conservation Act of 2008 defines a food desert as an “area in the United States with limited access to affordable and nutritious food, particularly such an area composed of predominantly lower income neighborhoods and communities.” The USDA Agricultural Marketing Service refines this definition by stating that, “Census tracts qualify as food deserts if they meet low-income and low-access thresholds:

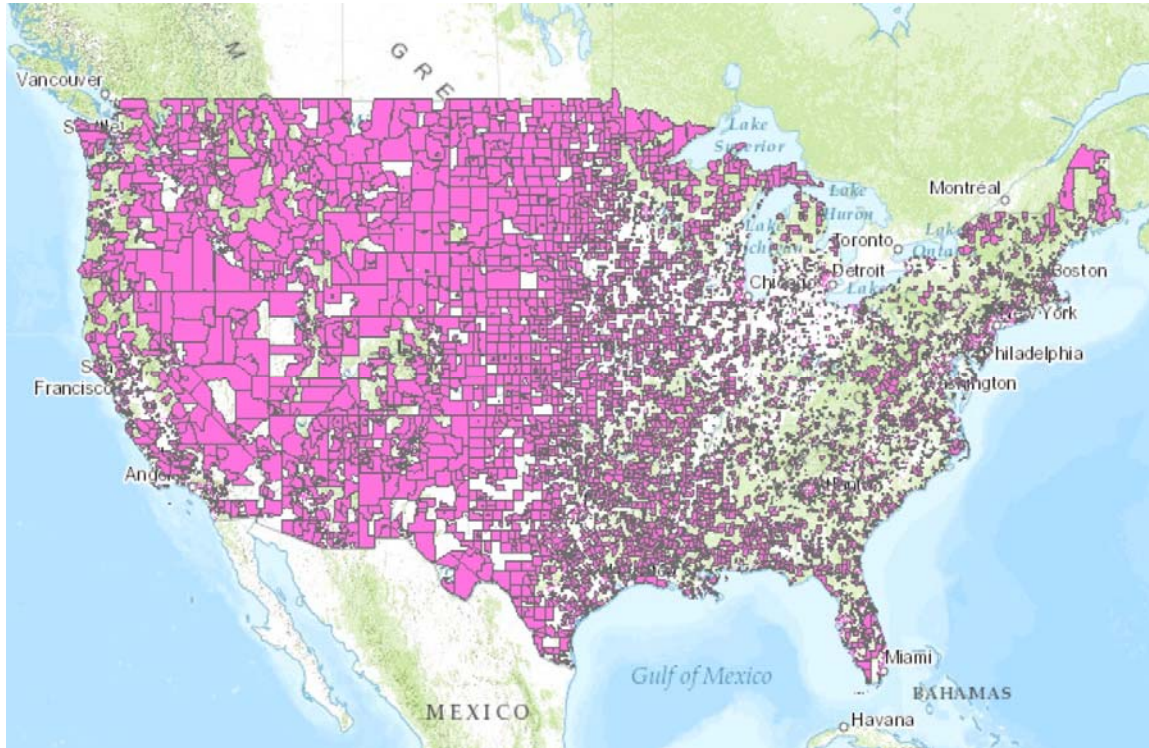
1. They qualify as “**low-income communities**”, based on having: a) a poverty rate of 20 percent or greater, OR b) a median family income at or below 80 percent of the area median family income; AND
2. They qualify as “**low-access communities**”, based on the determination that at least 500 persons and/or at least 33% of the census tract’s population live more than one mile from a supermarket or large grocery store (10 miles, in the case of non-metropolitan census tracts).”

The USDA estimates that more than 23.5 million people live in food deserts. More than half of those individuals are low income.

Most discussions of food deserts focus on urban areas, yet the Great Plains states exemplify rural aspects of food deserts and modern food insecurity. The USDA estimates that portions of 188 counties

in the Plains states (IA, KS, MO, NE, and SD) are food deserts, where residents (including at least 64,500 low-income individuals) must travel over 10 miles to access fresh foods. In addition, these locations often have higher than average populations of people 65 and older, making a trek to a full service grocery store, at best, difficult. Strengthening local food systems in food desert areas is highly dependent on building and maintaining community engagement. Figure 1 includes census tracts in which at least 500 people or 33% of the population lives farther than one mile (urban) or 10 miles (rural) from the nearest supermarket. These areas, which are USDA defined food deserts, are shown in purple.

**Figure 1. Food Deserts in the United States**



Source: USDA Food Access Research Atlas, 2010

### **Characteristics of Food Deserts**

Researchers have identified the following characteristics of food deserts: access, affordability, and low-income and other socio-economic disparities.

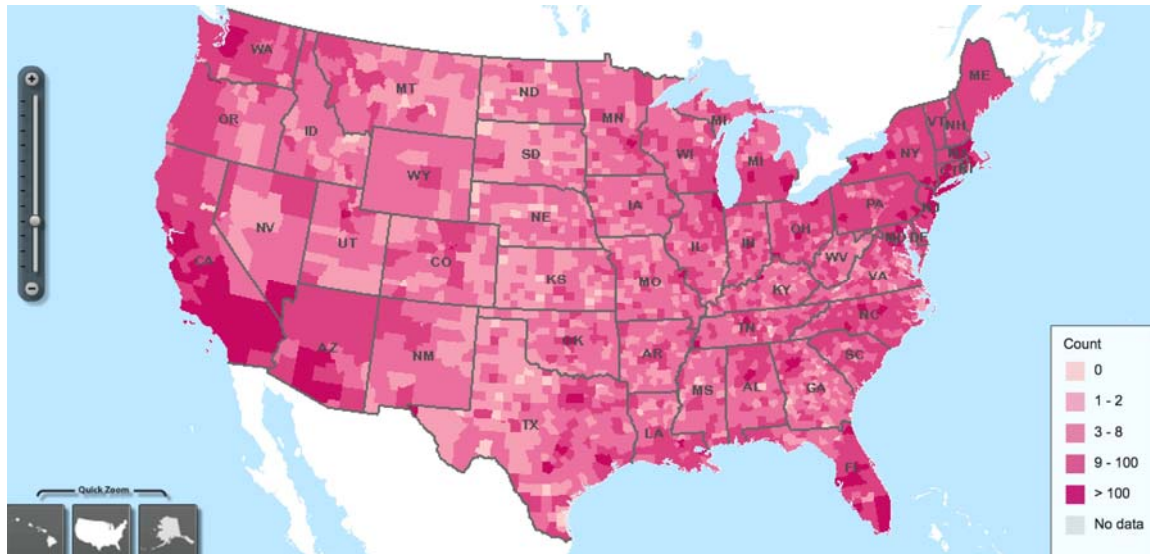
#### **Access**

Access refers to how close an individual lives to healthy foods. Although measurements vary, the USDA maintains that a food desert exists if individuals live more than one mile from a grocery store in urban areas and more than 10 miles from a grocery store in rural areas. Rural communities with small populations often do not generate sufficient demand for local grocery stores to stock a large selection, which could result in residents traveling outside the community to seek retailers with larger selection.

Figure 2 illustrates the number of supermarkets and grocery stores in the country by county. Grocery stores include establishments generally known as supermarkets and smaller grocery stores primarily engaged in retailing a general line of food, such as canned and frozen foods; fresh fruits and vegetables;

and fresh and prepared meats, fish, and poultry. Included in this industry are delicatessen-type establishments primarily engaged in retailing a general line of food. Convenience stores, with or without gasoline sales, are excluded. Large general merchandise stores that also retail food, such as supercenters and warehouse club stores, are excluded.

**Figure 2. Grocery Store Availability**



Source: USDA Food Environment Atlas, 2011

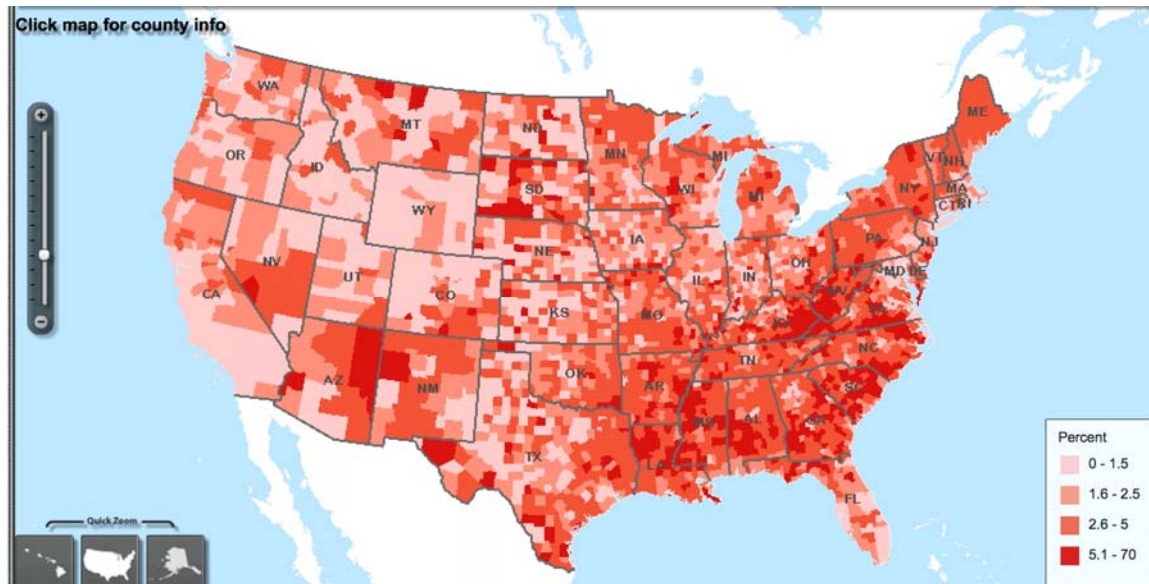
In addition, low availability of vehicular transportation has been identified by the USDA ERS as a variable that may contribute to food deserts. More often than not these individuals are low-income and do not have reliable transportation since there are no buses or cabs available to take them to a store from their homes. Rural census tracts with higher than average ages may also be at risk of becoming rural food deserts as older individuals reduce their use of vehicles. Figure 3 shows the percentage of housing units in a county without a car and more than one mile from a supermarket or large grocery store.

### **Affordability**

Along with access, affordability of food is an important component of food deserts. Individuals will often adjust the types of foods they purchase based on availability. Food is one of the more discretionary items in a household's budget, so many individuals adjust their food purchases according to price. Furthermore, some researchers have found that healthier foods are often more expensive to purchase than low-nutrient foods (Shaw, 2006).



**Figure 3. Percentage of housing units in a county without a car and more than one mile from a supermarket or large grocery store**



Source: USDA Food Environment Atlas, 2010

#### ***Low-income and Other Socioeconomic Disparities***

Food insecurity is on the rise, and food deserts and food insecurity often go hand-in-hand. The USDA estimates that approximately 9 out of 10 Americans are able to put food on the table daily. Many others, however, are food insecure, which the USDA defines as not having enough food for an active, healthy life.

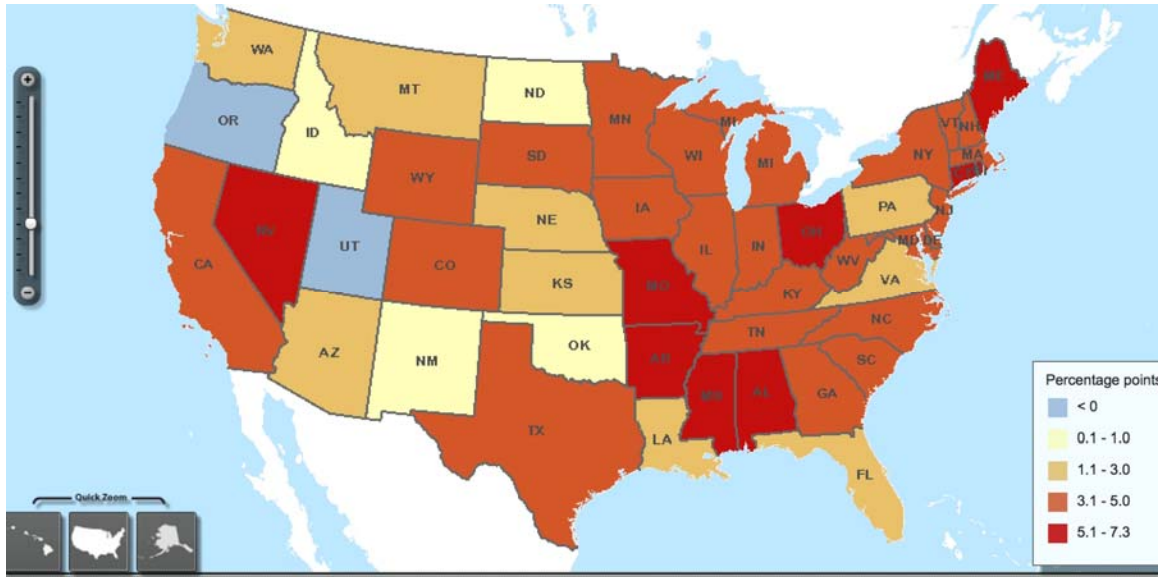
The USDA notes that in the first decade of this century, food insecurity rates rose in 41 states. In the other nine, the numbers stayed flat. In 2012, an estimated 49 million people lived in food insecure households, including approximately 33.1 million adults and 15.9 million children. Furthermore, the USDA states that, “In 2012, households that had higher rates of food insecurity than the national average included households with children (20.0 percent), especially households with children headed by single women (35.4 percent) or single men (23.6 percent), Black non-Hispanic households (24.6 percent) and Hispanic households (23.3 percent)” (Coleman-Jensen, Nord, & Singh, 2013). Food security is strongly associated with income, although other household circumstances and federal, state, and local government policies and economic conditions matter.

Figure 4 shows the change in food insecurity from 2007-09 to 2010-12. Nebraska experienced a 1.1-3.0% increase in the occurrence of food insecurity during this time period.

Figure 5 shows low-income census tracts where a significant number or share of residents is more than one mile (urban) or 10 miles (rural) from the nearest supermarket.

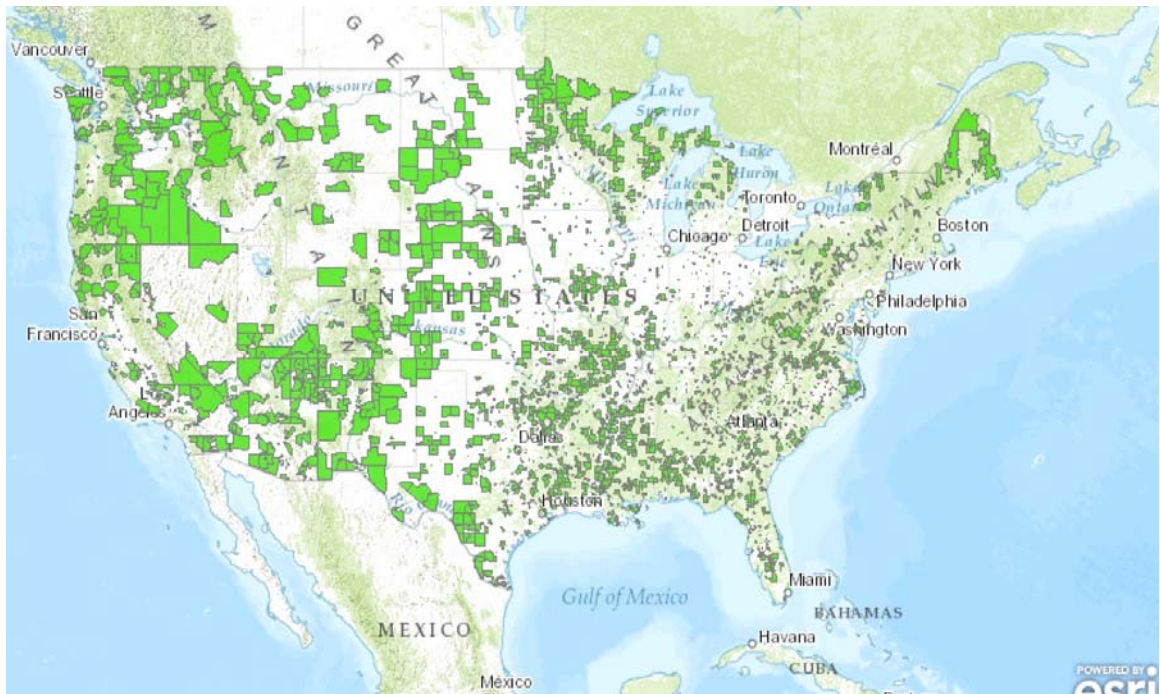


**Figure 4. Household food insecurity (%), 2007-09 to 2010-12**



Source: USDA Food Environment Atlas, 2014

**Figure 5. Low-income census tracts where a significant number or share of residents is more than one mile (urban) or 10 miles (rural) from the nearest supermarket**

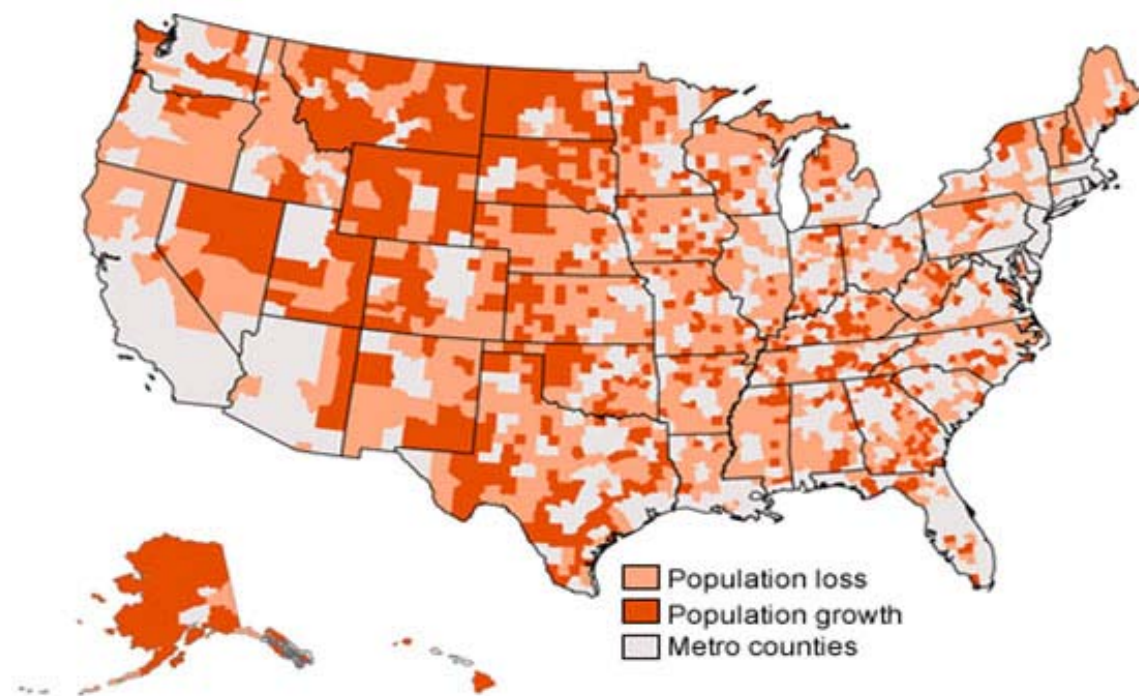


Source: USDA Food Access Research Atlas, 2010

As rural communities continue to change and face challenges such as population loss, lower than average household incomes, and aging citizens, the number of institutions in small towns is also declining. Rural grocery stores are one of the most important institutions to sustain small towns. Not

only do they provide sustenance, but they also provide jobs and a local gathering place important to small town life. When the grocery store closes, the individuals in those communities quickly become food insecure. Towns can often withstand the loss of some of their other institutions, but the closing of a grocery store makes it quite difficult to remain viable. Depopulation of rural communities often occurs when lack of access to grocery stores, coupled with low access to jobs and schools, contribute to individual decisions to relocate out of the community. Figure 6 shows the nonmetropolitan population change from 2010-2013.

**Figure 6. Nonmetropolitan population change, 2010-2013**



Source: USDA Economic Research Service using data from the U.S. Census Bureau

### **Impacts of living in food deserts**

Researchers have attempted to measure the health impacts of living in a food desert and have found that higher rates of chronic diseases, such as diabetes and adult and childhood obesity, have been associated with lower access to affordable, healthy foods (Gittelsohn et al., 2009). At first glance, the connection between food deserts and obesity may seem ironic, but researchers have identified and documented a number of risk factors. For example, low-income neighborhoods may lack farmers markets and grocery stores that provide fresh fruits and vegetables (Beaulac, Kristjansson, & Cummins, 2009; Larson, Story, & Nelson, 2009), but offer a great number of fast food restaurants (especially near schools) (Fleischhacker, Evenson, Rodriguez, & Ammerman, 2011). Furthermore, when healthy food is available, it is often more expensive and of lower quality than other foods (Drewnowski, 2010). Combined with more typical risk factors, such as sedentary lifestyles and increased portion sizes, that many Americans face, these and other risk factors that are unique to those living in food deserts translate to higher levels of obesity over time.

In rural areas, individuals also struggle to maintain healthy diets when they do not have access to a nearby supermarket. In a study of food consumption in four rural Iowa counties, Morton and Blanchard (2007) found that a large share of residents without access to a nearby supermarket did not consume adequate amounts of fresh fruits, vegetables, dairy, or protein.

### **Summary**

- There is little consensus about the definition of a food desert or their characteristics. Furthermore, little is known about incipient food deserts—those areas that are about to become food deserts. The USDA has provided a definition of food deserts and is collecting data based on this definition. However, more research needs to be conducted.
- Food deserts encompass issues related to health, social equity, and sustainability, among other things.
- The USDA estimates that more than 23.5 million people live in food deserts. More than half of those individuals are low income.
- The USDA estimates that portions of 188 counties in the Plains states (IA, KS, MO, NE, and SD) are food deserts, where residents (including at least 64,500 low-income individuals) must travel over 10 miles to access fresh foods.
- Many individuals in food deserts do not have access to private or public transportation.
- Food insecurity rates are rising, and rural areas are experiencing depopulation and/or an aging population. Both can contribute to the rise of food deserts.
- Researchers have attempted to measure the health impacts of living in a food desert and have found that higher rates of chronic diseases, such as diabetes and adult and childhood obesity, have been associated with lower access to affordable, healthy foods.
- Sustainable food systems must be developed in rural and urban areas. Strengthening local food systems in food desert areas is highly dependent on building and maintaining community engagement.

### **Implications for Nebraska**

- According to the USDA's definition of food deserts, Nebraska contains both urban and rural food deserts. If the trends of food insecurity and depopulation continue to increase, Nebraska will face more food deserts and possible increases in health problems associated with food deserts.
- The existence of food deserts indicates that we must build more sustainable food systems in rural and urban areas in Nebraska.
- As a result of depopulation and an aging population, Nebraska may see an increase in incipient food deserts. More research should be conducted to determine their characteristics and ways of addressing this issue.

## Urban and Rural Food Deserts in Nebraska

- Lack of public or private transportation options means that many Nebraskans who live in food deserts shop at small grocery or convenience stores that do not offer a large selection of fresh, healthy foods.

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# Pediatric Cancer in Nebraska: Policy Implications

Don Coulter, MD  
University of Nebraska Medical Center and  
Children's Hospital and Medical Center

Shinobu Watanabe-Galloway, PhD  
College of Public Health  
University of Nebraska Medical Center  
November 2014

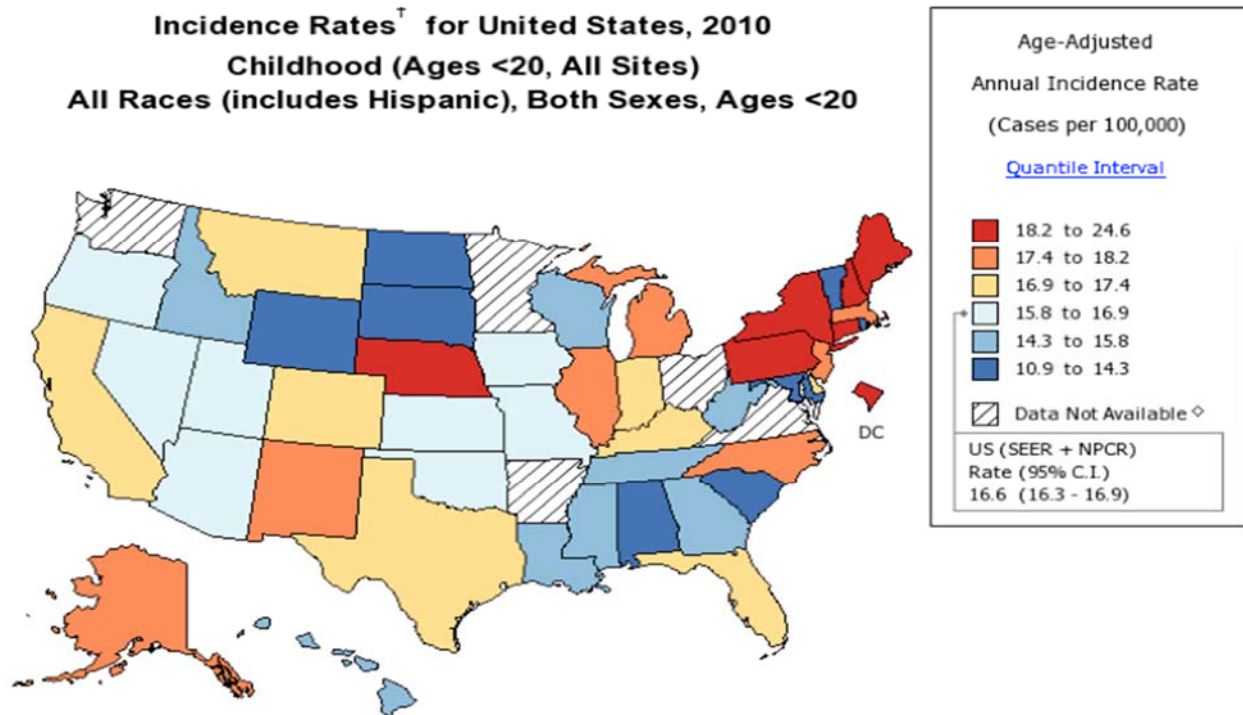
## Introduction

This policy attempts to address two key challenges facing the state of Nebraska. The first is the increased incidence of pediatric tumors throughout the state. The second is a review of the impacts of the disease on the 80 % of children who will survive, their families and the state.

## The Incidence of Pediatric Cancer in the United States

Pediatric cancer continues to be the number one cause of death due to disease in the United States of America for children between infancy and 14 years of age.<sup>1</sup> More children die from pediatric cancer than from asthma, cystic fibrosis and AIDS combined. Childhood cancer rates have been slowly increasing over the last several decades, and the reason for this is unknown.<sup>2</sup>

**Figure 1: Incidence rates for pediatric cancer in the United States, 2010**



Source: SEER: Surveillance, Epidemiology and End Results. NPCR: National Program of Cancer Registries



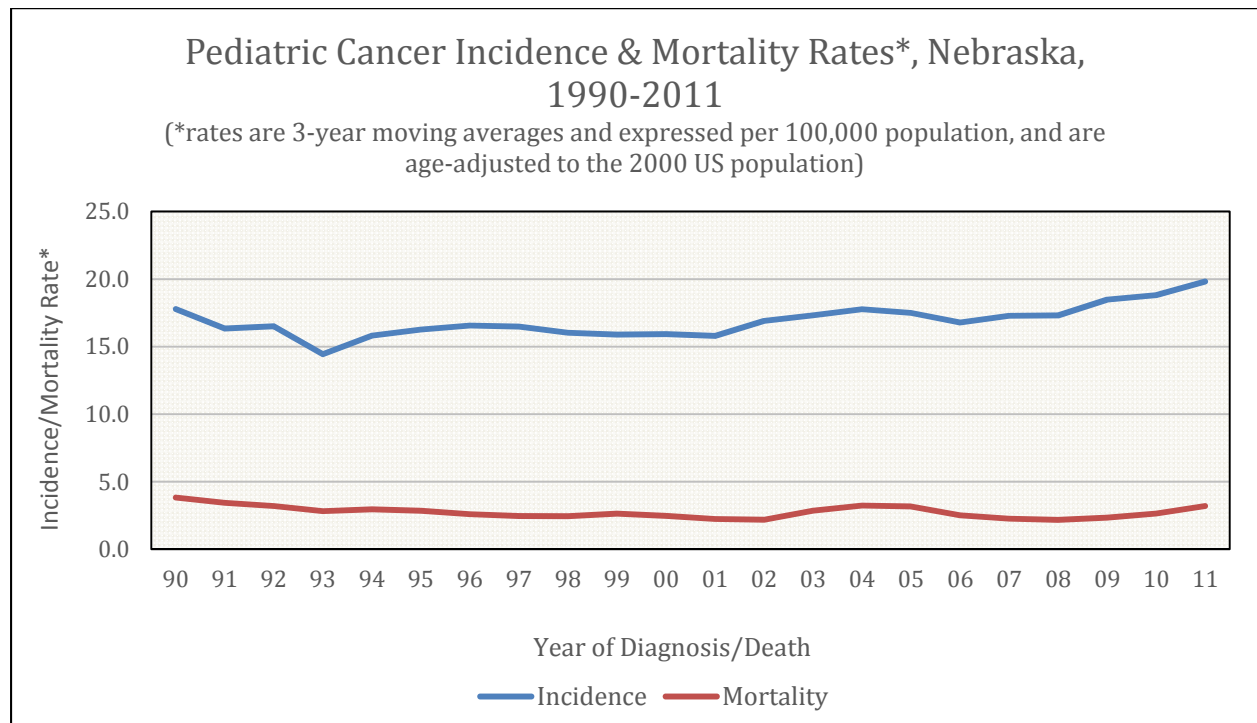
In the United States of America, the incidence (number of new cases diagnosed during a given time) of pediatric cancer as determined by The Surveillance, Epidemiology and End Results data from 2007-2011 is 17.3 per 100,000 children ages 0-19 years.<sup>3</sup> In 2010, the incidence rate of pediatric cancer in Nebraska (18.6 per 100,000 children ages 0-19 years) ranked fifth in the country as shown in Figure 1.

Higher rates of pediatric tumors in the Northeast of the country have been identified for a number of years. Although one direct cause has never been identified, researcher have hypothesized that better reporting of cases of pediatric cancer may play a role. Furthermore, environmental toxins such as radiation may also have an impact on the overall incidence of pediatric cancer in the Northeast.<sup>4</sup> The regional disparity between incidence rates in Wyoming, South Dakota, Iowa and Kansas when compared to Nebraska is also unknown.

### **The Incidence of Pediatric Cancer in Nebraska**

The incidence of pediatric cancer in Nebraska has exceeded national incidence rates since 2007, and continues to increase as detailed in Figure 2.

**Figure 2: Pediatric Cancer Incidence and Mortality Rates from 1990 – 2011**

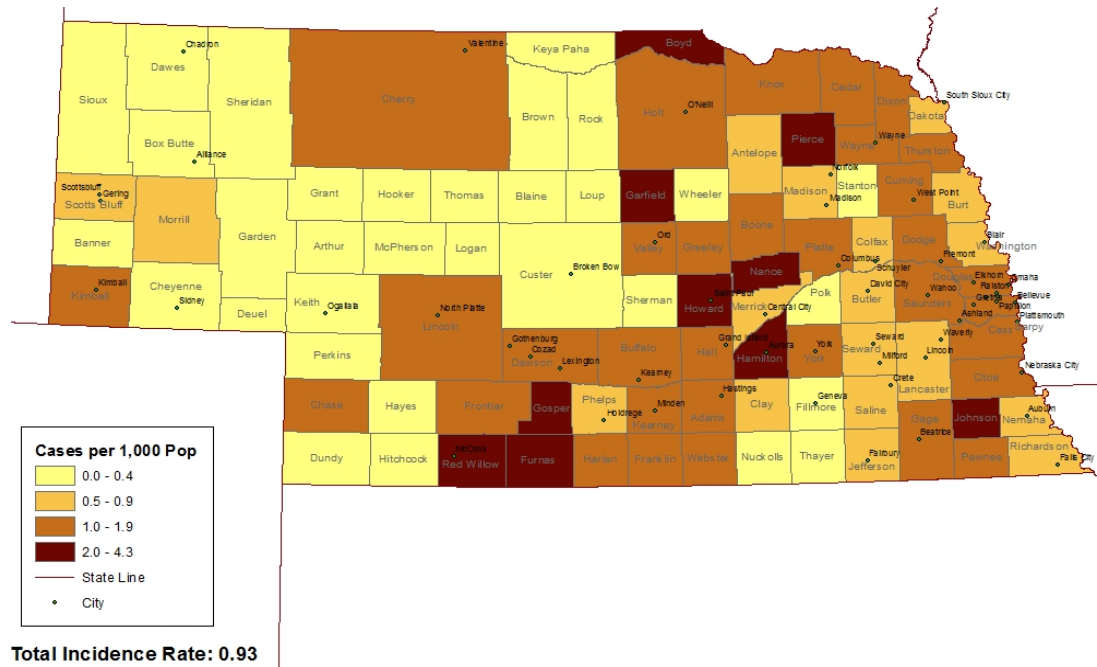


Source: Data provided by the Nebraska Cancer Registry. From 2009 to 2011 the incidence rate rose from 18.5 per 100,000 to 19.8 per 100,000 children aged between 0 and 19 years.

More investigation is needed to examine the patterns of childhood cancer in Nebraska over time. Although more information has been discovered regarding the causes of certain pediatric cancers, the cause of most childhood cancer remains elusive.<sup>5</sup> The genetics of the family combined with environmental factors most likely play a role in the cause of the majority of childhood cancers.

Within the state of Nebraska, further study is needed to examine whether there are locations that have a higher incidence of pediatric tumors than what would be predicted.

**Figure 3: The Incidence of pediatric cancer in Nebraska counties**



Source: Data from the Nebraska Department of Health and Human Services was utilized by Children’s Hospital and Medical Center to construct a map detailing the incidence of pediatric tumors in specific counties.

As outlined in Figure 3, data from the Nebraska Department of Health and Human Services was used by Children’s Hospital and Medical Center in an attempt to identify areas of the state where higher rates of pediatric cancer occur. When population data from the 2000 census was applied to known cases of pediatric tumors diagnosed at Children’s Hospital and Medical Center and at The Nebraska Medical Center from 2008-2012, a number of counties revealed an incidence greater than that for the state as a whole. The cause of this is unknown, but multiple influences such as family genetics and environmental factors may be involved.

As with all statistics involving rare diseases, these data should be interpreted cautiously. Pediatric cancer is a rare event, accounting for only 2% of all cancer in the country. In states with lower overall populations, it is often difficult to validate rare disease data given the low numbers of possible patients who can be affected. For these reasons, specific data within individual counties can vary greatly from year to year, making validation difficult.

Statistical methods for disease mapping have been developed to address these methodological issues. Further study of the distribution of pediatric cancer across the state is needed, utilizing these advanced statistical techniques. Analysis using simple rates for each county can be highly unstable for counties with small population size. Thus, simple descriptive statistics at the county level are extremely difficult to interpret and can lead to incorrect conclusions. Advanced geospatial statistical mapping methodologies are needed to study the distribution of disease in this setting of a rare disease like pediatric cancer, particularly in geographic regions with small population size.<sup>6</sup>

## **Policy Implications regarding Pediatric Cancer**

In the 1950s childhood cancer was almost always fatal. Today, through advances in research that have led to better diagnostics and improved treatments, almost 80 % of children with the most common types of pediatric cancer will survive their disease. While this comes as welcome news, long-term survivors of childhood cancer can have impacts on their health and wellbeing that should be considered in future planning.

The toll of therapy for pediatric cancer is not arbitrary and includes both financial and personal costs that are often compounded for families living in rural communities.<sup>7</sup> The majority of survivors of childhood cancer have chronic medical conditions for the remainder of their lives. Impacts can be seen on their physical, psychological and social wellbeing, which in turn can have their impacts on their future health. These effects can have consequences on their ability to finish an adequate education, obtain or maintain employment and have a family. All of these consequences can have future impacts on the state of Nebraska.

In order to plan effectively, more will need to be known about the specific needs of childhood cancer survivors and their families. This information could help shape an early intervention program, which could alleviate some of the damage caused by the disease and the treatments. By identifying the stressors and risks for these children early in the process, more support can be provided to aid in their overall success. Any intervention program would need to incorporate expertise in cognitive, behavioral, physical, developmental and social realms to ensure all the needs of the children and their families are met. Issues such as those experienced by survivors of pediatric cancer will need to be addressed by every state as an investment in their future. Nebraska has the opportunity to be a leader for the nation in the development and implementation of such a program that could function as a model for other states.

While intervening early for survivors represents a crucial step for those affected by pediatric cancer, opportunities also exist to further understand the increased rate of childhood cancer in Nebraska. More data could be collected regarding the environmental factors that could play a role in the development of pediatric tumor. Furthermore, an analysis of the genetic composition of families living in areas of the state where high rates of pediatric cancer occur may yield new information about mutations that make pediatric tumors more likely. This data could then be shared with other state and national groups to have a wider impact for children at risk for childhood cancer.

For children in Nebraska, the combined group of pediatric hematologists and oncologists at The Nebraska Medical Center and Children's Hospital and Medical Center in Omaha represent the one location for comprehensive care. This one site system differs from the majority of states in the nation where patients with childhood cancer can be evaluated and treated in multiple locations. For the people of Nebraska, having one-site functions as a both strength and a challenge to families dealing with this disease. As a strength, any future questions regarding the incidence, diagnosis, management and treatment of children with cancer can be answered by one multi-disciplinary group of researchers in one location. However, for patients and families that live in rural Nebraska traveling to Omaha can be a significant burden.

More information should be collected regarding the impact on the family of cost of travel, lost time at work, impact on future employment, and stress which can possibly lead to separation or divorce. All these factors may represent threats to the family that could also have impacts on the state.



The access to comprehensive pediatric medical care can be problematic in states with large rural populations. For these reasons, investigations in mediating these issues should be a focus of future planning. Possible solutions that could be explored include utilizing the resources of tele-medicine to assist local caregivers in the management of patients, or investing in improved continuing medical education regarding the management of children with chronic medical conditions for physicians, physicians assistants and advanced practice nurse practitioners.

## **Conclusion**

This analysis of the incidence of pediatric cancer in Nebraska reveals that cancer rates continue to rise, and the cause of this increase is unknown. Although 80 % of children diagnosed with cancer will survive, the majority of those children survive with chronic medical conditions that can have a profound impact on their future. Opportunities exist to further understand the impact of pediatric cancer on the state of Nebraska at multiple levels, including the child, the family and the community. Any knowledge gained about the disease and its impact is likely to be generalizable to other chronic pediatric conditions and serve as a model to other states in the nation.

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