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Brain Drain in Nebraska: What do the data show?

By Steve Carlson, Hanna Hartman, and Dr. Eric Thompson

Introduction

Nebraska is a growing state, but it is a slowly growing state. Over the last decade, population growth in Nebraska, at 0.6% per year, has lagged the national average rate of 1.0%. This gap in growth rates is large in real terms. Given a current population of approximately 1.8 million persons, Nebraska would grow by approximately 18,000 persons per year if it grew at the national growth rate of 1.0% per year. Instead, the state only adds about 11,000 persons per year. A lower growth rate results in a loss of 7,000 persons per year in population growth in Nebraska.

There are many reasons for this slower growth. Net migration is among the most important of these reasons. Each year more people move out of Nebraska to live in another state, than move from another state to Nebraska. Thus, while the state receives many new international migrants, the net migration of domestic residents is negative. For example, from 1995 to 2000, approximately 3,000 more domestic residents moved out of Nebraska each year than moved in.

Net migration also has created concerns about “brain drain” because migration is most common among younger residents. Brain drain is partly an issue of out-migration alone: the notion that too many young people leave the state. This is an unhappy outcome for the friends and extended families of the young out-migrants who will bear

a higher cost when visiting them. But, it is different than the issue net migration, which reflects both outmigration and immigration.

Negative net migration (or net outmigration) could represent even larger challenges. In particular, net out-migration of younger people could change the age distribution in Nebraska – leaving relatively few working age people to provide services to a relatively large number of retirees. This issue is one of both immigration and outmigration – that is, the net change in the number of young people over time due to the rate of both in-migration and out-migration.

In this report, we will examine the trends in net migration in Nebraska, focusing on migration among different age groups and comparing Nebraska with neighboring states. We also will examine the rate of net out-migration in select Nebraska communities, including Omaha.

Statewide Trends

As shown in Table 1, the Census Bureau estimates net internal migration between Nebraska and other states from 2000 to 2007 to be negative. However, counting in net international migration serves to increase Nebraska’s total net migration. Similar to the collective Midwest region, Nebraska regains about 75% of its loss in net internal migration, (domestic migration) with its positive international migration.

Table 1: Net Migration for the United States, Midwest Region, and Nebraska: Cumulative Estimates for 2000 to 2007

Geographical Area	Internal	International	Total
United States	-----	7,984,271	7,984,271
Midwest	-1,400,179	1,057,420	-384,759
Nebraska	-36,717	27,398	-9,319
Census 2000 Data for 1995 to 2000			
United States	-----	N/A	N/A
Midwest	-541,189	N/A	N/A
Nebraska	-15,353	N/A	N/A
<i>Source: U.S. Census Bureau</i>			

From the Census Bureau, current population estimates are available for 2000-2007, but only for regions and states. For our study, we must utilize more detailed data. The most current detailed data is from the 2000 census that gives us 1995-2000 county to county migration flows. Therefore, all remaining data used for this report is from the 2000 census.

In using 2000 census data, we were unable to find data on net international migration. Therefore, we were not able to estimate total net migration, as seen in Table 1. There is, however, detailed data available on gross foreign immigration. This information is presented in Tables 2, 3a, and 3b below. The data on gross foreign immigration is not a net figure, because it does not consider individuals who outmigrate from the United States to a foreign country. However, other Census estimates indicate that gross outmigration from the United States to other countries is significantly less than gross immigration from other countries to the United States. Therefore, net foreign immigration also would likely be positive, and therefore, contribute to population growth in the state.

Table 2 shows Nebraska's actual net domestic and gross foreign immigration with respect to age groups. The term net domestic migration is used here to define people moving between U.S. states, while gross foreign immigration is used to define

people moving to Nebraska from other countries. Even though Nebraska had negative overall net domestic migration, gross foreign immigration will increase the net total migration. We know this because, as was mentioned earlier, Census estimates show that gross foreign outmigration from the United States to other countries is significantly less than gross foreign migration; thus foreign migration helps increase the net total migration. More importantly, since most foreign migrants are under the age of 49, they serve to balance the overall age distribution in Nebraska.

We can see from the table below that Nebraska's highest positive domestic migration was from children ages 5 to 9. The age group with the highest gross foreign migration was 20 to 24. It is interesting to note that net domestic migration is lowest for ages 20-29, but for these age groups, gross foreign migration is at its highest. Regarding the brain drain issue, we see that gross foreign migration especially adds people to the younger population groups.

Table 2: Nebraska's Domestic, Foreign, and Total Net Migration, 1995-2000

<u>Age Group (years)</u>	<u>Net Domestic Migration</u>	<u>Gross Foreign Immigration</u>
5 to 9	1,307	2,472
10 to 14	492	2,010
15 to 19	-121	3,520
20 to 24	-2,004	5,375
25 to 29	-5,855	4,753
30 to 34	-1,988	3,170
35 to 39	-1,066	2,362
40 to 44	-1,048	1,661
45 to 49	-457	1,130
50 to 54	-1,205	595
55 to 59	-542	467
60 to 64	-977	311
65 to 69	-907	155
70 to 74	-570	89
75 to 79	-320	56
80 to 84	48	57
85 & over	-140	99
Total	-15,353	28,282
<i>Source: U.S. Census Bureau, 2000 Census</i>		

In order to further explore the brain drain issue, we compared Nebraska's migration amongst different age groups to its neighboring states. The purpose of this was to find out which states seem to be attractive and unattractive to each age group. Rankings are based on a scale of one to nine, with one being the highest net domestic migration rate, (the most net people moving to the state) and 9 being the lowest net domestic migration rate, (the fewest net people moving to the state, or a net loss in people from more people leaving the state than moving to it).

Table 3a compares Nebraska's net domestic migration rates from 1995 to 2000 with nearby states: Colorado, Iowa, Kansas, Minnesota, Missouri, Oklahoma, South Dakota, and Wyoming. South Dakota did not record data for the age group 85 and over. We took the migration data for each age group and divided it by the state's population of that age group to come up with the rates.

Table 3a: Nebraska's Net Domestic Migration Rates by Age Groups Compared to CO, IA, KS, MN, MO, OK, SD and WY, 1995-2000

<u>Age Group</u>	<u>NE's Rank</u>	<u>Top State</u>	<u>Bottom State</u>
5 to 9	4	CO	WY
10 to 14	7	CO	WY
15 to 19	7	CO	WY
20 to 24	6	CO	WY
25 to 29	6	CO	SD
30 to 34	6	CO	WY
35 to 39	7	CO	WY
40 to 44	7	CO	WY
45 to 49	6	CO	SD
50 to 54	9	CO	NE
55 to 59	6	OK	MN
60 to 64	7	WY	KS
65 to 69	7	OK	MN
70 to 74	7	OK	MN
75 to 79	7	KS	IA
80 to 84	5	CO	IA
85 & over	7*	CO	MO

Source: U.S. Census Bureau, 2000 Census
 *South Dakota did not report data for this category.

Among persons 50-54 years of age, Nebraska ranked ninth, which means that it had the lowest net domestic migration rate for this group out of the nine states. Wyoming generally had the least net domestic migration in the younger age groups.

Colorado consistently outranked the other states with the highest net domestic migration rate from people age 5 to 54 years of age. Nebraska did the best in the categories of people ages 5 to 9 and 80 to 84 years of age.

Table 3b illustrates that Nebraska is more attractive to international migrants. Colorado also ranked consistently high in gross foreign immigration rates. South Dakota generally had the least gross foreign immigration. Nebraska seems to do well in age groups from 5 to 49.

Table 3b: Nebraska's Gross Foreign Immigration Rates by Age Groups Compared to CO, IA, KS, MN, MO, OK, SD and WY, 1995-2000

<u>Age Group</u>	<u>NE's Rank</u>	<u>Top State</u>	<u>Bottom State</u>
5 to 9	3	CO	SD
10 to 14	3	CO	WY
15 to 19	3	CO	SD
20 to 24	3	KS	SD
25 to 29	4	CO	SD
30 to 34	4	CO	SD
35 to 39	5	CO	MO
40 to 44	4	CO	WY
45 to 49	3	CO	SD
50 to 54	7	CO	SD
55 to 59	3	CO	SD
60 to 64	6	CO	WY
65 to 69	7	CO	WY
70 to 74	8	CO	SD
75 to 79	8	CO	SD
80 to 84	7	CO	SD
85 & over	8	WY	IA

Source: U.S. Census Bureau, 2000 Census

Omaha Metropolitan Area

We also utilized the 2000 census data to study how the Omaha, NE metropolitan statistical area (MSA) compares to other nearby MSA's regarding migration inflows and outflows. An MSA is a statistical area defined by the census bureau, often combining multiple counties in and around metropolitan areas. The counties included in each MSA were updated in June of 2003, and can be found on the census bureau website. We picked eight other MSA's and used county to county migration inflow and outflow data. Our goal was to compare net migration with non-movers.

**Table 4: MSA Domestic Migration Changes
1995 to 2000**

<u>MSA</u>	<u>Inflow Rate</u>	<u>Outflow Rate</u>	<u>Net Migration Rate</u>
Denver	31.5%	24.7%	6.83%
Twin Cities	17.8%	15.9%	1.91%
Tulsa	27.6%	24.6%	2.97%
Omaha	24.0%	24.6%	-0.58%
Oklahoma City	26.8%	25.5%	1.26%
Louisville	17.0%	16.1%	0.93%
Kansas City	22.9%	21.1%	1.82%
Indianapolis	23.2%	19.9%	3.36%
Albuquerque	30.2%	29.8%	0.43%

Source: U.S. Census Bureau, 2000 Census

In order to measure the impact of migration to MSA's, particularly Omaha, we took into account people who are movers, (those who move completely in or out of a metropolitan statistical area) In the U.S. Census Bureau's census brief "Geographic Mobility: 1995 to 2000," it stated that one quarter of the population ages 5 and older moved within the same county between 1995 and 2000 (Berkner et al, 2). A difference between our report and the census brief is that in the Census Brief, the quarter of the population that moved within the same county would be counted as non-movers. In this report, people that move within the same MSA are considered non-movers because they are still part of the same MSA. We feel this is a more accurate analysis because other data regards non-movers as being in the same place of residence/dwelling. Since most MSA's are defined as containing multiple counties, if someone moves from Pottawattamie County, IA to Douglas County, NE, in our report they are considered a non-mover because they are still a resident of the Omaha-Council Bluffs, NE-IA MSA.

Table 4 illustrates how Omaha compares in respect to inflow, outflow, and overall net domestic migration in comparison with Denver-Aurora, CO, the Twin Cities (Minneapolis/St. Paul, MN-WI), Tulsa, OK, Oklahoma City, OK, Louisville, KY-IN, Kansas City, MO-KS,

Indianapolis, IN, and Albuquerque, NM. These eight MSA's were chosen because of their relative proximity to the Omaha MSA, and their varying differences in size with respect to the Omaha MSA.

Omaha had the fifth highest inflow rate, and tied with Tulsa for the fourth highest outflow rate. As we anticipated, Omaha had a negative net migration. It was the only MSA to have a negative net migration rate in our study.

A key focus of this report was to see if the net migration in Omaha is weaker from less inflow occurring (fewer people entering the area) or from more outflow occurring, (more people leaving the area). When viewing Table 4, you can see that Omaha's outflow rate is comparable to other nearby MSA's. For instance, Omaha's outflow rate is virtually the same as Denver's and Tulsa's. However, Omaha's inflow rate is 7.5% lower than Denver's and 3.6% lower than Tulsa's. Thus, the major difference in Omaha's negative net migration rate versus other nearby MSA's is due to lower inflow rates.

Also of interest is a perceived problem of a brain drain out of Nebraska. To help us further understand the brain drain issue, we wanted to see which areas Omaha's migrants came from and went to. We first began by breaking up the origins and destinations of the migrants into two categories: metropolitan areas and non metropolitan areas. Table 5 illustrates the breakdown of the two groups.

**Table 5: Omaha's Domestic Migration 1995-2000:
Metropolitan vs. Nonmetropolitan**

	<u>Inflow</u>	<u>Outflow</u>	<u>Net Migration</u>
Non-metropolitan	29,964	25,750	4,214
Metropolitan	70,850	77,497	-6,647
Total	100,814	103,247	-2,433

Source: U.S. Census Bureau, 2000 Census

Among those who move to Omaha, the majority came from metropolitan areas, and among those who leave Omaha, the majority move to

metropolitan areas. This illustrates the fact that those who live in metropolitan areas are more mobile than those who live in non-metropolitan areas (Franklin et al, 2). Omaha seems to lose people to metropolitan areas, but bring people in from non-metropolitan areas. Much like foreign immigration, migration from non-metropolitan areas helps keep Omaha's net migration higher.

Next, we focused on which specific metropolitan areas and non-metropolitan areas were the most common destinations and origins. Tables 6a and 6b list these top origins and destinations for those moving to and from Omaha during 1995-2000.

It is interesting to note that Omaha gains people from Los Angeles and Chicago. However, it does seem that Omaha loses people to nearby MSA's such as Denver and Kansas City.

Table 6a: Top MSA Inflow Origins and Outflow Destinations: Omaha 1995-2000		
Rank	MSA	Inflow
1	Lincoln, NE	7,499
2	Los Angeles, CA	3,387
3	Chicago, IL	2,672
4	Denver, CO	2,658
5	Kansas City, KS-MO	2,412
6	Des Moines, IA	2,299
7	Phoenix, AZ	1,697
8	Sioux City, IA	1,610
9	Minneapolis-St. Paul, MN	1,557
10	Dallas-Fort Worth, TX	1,261
Rank	MSA	Outflow
1	Lincoln, NE	7598
2	Kansas City, KS-MO	3831
3	Phoenix, AZ	3056
4	Denver, CO	2946
5	Dallas-Fort Worth, TX	2613
6	Des Moines, IA	2107
7	Washington, DC	1980
8	Minneapolis-St. Paul, MN	1799
9	Chicago, IL	1,745
10	St. Louis, MO	1,447
<i>Source: U.S. Census Bureau, 2000 Census</i>		

Omaha typically gains most of its inflow from non-metropolitan areas in Nebraska and surrounding states, as well as losing some people to non-metropolitan areas within the state and surrounding states. It is also not surprising that the top five states for non-metropolitan destinations and origins are in close proximity to Nebraska.

Table 6b: Top Non-Metropolitan Inflow Origins and Outflow Destinations: Omaha 1995-2000		
Rank	State	Inflow
1	Nebraska	14,017
2	Iowa	5,583
3	Kansas	1,269
4	South Dakota	1,068
5	Missouri	933
Rank	State	Outflow
1	Nebraska	9,476
2	Iowa	5,716
3	Missouri	1,541
4	Minnesota	1,008
5	Kansas	883
<i>Source: U.S. Census Bureau, 2000 Census</i>		

Smaller Area Comparisons

We wanted to replicate the migration study to compare the inflows and outflows for metropolitan areas with inflows and outflows for micropolitan areas and smaller towns in Nebraska, which we reference as tier 3 cities. As parallels to the Omaha MSA, we chose the Grand Island, NE micropolitan area and the city of Albion NE, located in Boone County, NE. The micropolitan areas and smaller cities, which were chosen are similar to Grand Island and Albion respectively. To compare to Grand Island, we chose Edwards, CO, Mankato, MN, Ardmore, OK, Salina, KS, Somerset, KY, Branson, MO, Warsaw, IN, and Roswell, NM. Likewise, for Albion comparisons, we chose Meeker, CO, Ortonville, MN, Beaver, OK, Cimarron, Ks, Burkesville, KY, Albany, MO, Liberty, IN, and Clayton, NM.

When possible, we chose areas that were not extremely close to an MSA in order to avoid observing individuals who simply commute from a smaller area to a metropolitan area for work. For

Table 7: Domestic Migration Changes from 1995 to 2000
(expressed in rates)

<i>Micropolitan</i>			
<u>City</u>	<u>Inflow</u>	<u>Outflow</u>	<u>Net Migration</u>
Grand Island, NE	25.20%	31.22%	-6.02%
Edwards, CO	83.09%	71.08%	12.01%
Mankato, MN	42.64%	36.62%	6.02%
Ardmore, OK	27.13%	30.05%	-2.92%
Salina, KS	34.65%	34.60%	0.05%
Somerset, KY	26.94%	20.46%	6.48%
Branson, MO	57.30%	43.73%	13.57%
Warsaw, IN	30.04%	28.79%	1.24%
Roswell, NM	30.29%	36.52%	-6.23%
<i>Tier 3</i>			
<u>City</u>	<u>Inflow</u>	<u>Outflow</u>	<u>Net Migration</u>
Albion, NE	18.53%	34.89%	-16.36%
Meeker, CO	50.31%	58.15%	-7.84%
Ortonville, MN	15.74%	27.26%	-11.53%
Beaver, OK	32.60%	46.22%	-13.62%
Cimarron, KS	36.82%	46.76%	-9.95%
Burkesville, KY	20.14%	19.47%	0.67%
Albany, MO	28.88%	39.26%	-10.39%
Liberty, IN	27.67%	27.03%	0.65%
Clayton, NM	30.41%	37.30%	-6.89%

Source: U.S. Census Bureau, 2000 Census

example, while many people may commute from Lincoln, NE to Omaha, NE for work, it is much less likely that residents of Grand Island, NE will do the same because of a longer driving distance.

College towns were not chosen because of unique conditions influencing their inflows and outflows, skewing the comparison. College towns are often defined as communities where there is a major university or several smaller universities, and generally a large portion of the community's population either attends or works at the university. For these reasons, Lincoln, NE and Laramie, WY were not chosen in this study.

Table 7 presents our findings when we repeated the migration study. Similar to the MSA study, the Colorado micropolitan comparison has the

highest inflow rate. Edwards and Branson both have very high inflow, outflow, and net migration rates compared to the other areas. This may be due to their relative closeness to metropolitan areas, Denver and Springfield, respectively. Discounting these two examples, Grand Island has a comparable outflow rate. However, Grand Island had the lowest inflow rate of all the examples.

Regarding the smaller cities, we see that net migration is negative or barely greater than zero for all the examples. Similar to Grand Island, Albion has among the lowest inflow rates. However, Albion's outflow rate is about average among its peers in this study. As we note the similarities between Omaha, Grand Island, and Albion, we may be able to conclude that the statement that Nebraska has a "brain drain" problem is complex. Even though there is a similar rate of outflow compared to their peers, smaller areas in Nebraska seem to have more of an issue attracting people rather than retaining people; creating a net loss.

Table 8 shows results for Grand Island's metropolitan and non-metropolitan migration, similar to table 5 for Omaha. Those who left Grand Island, NE from 1995 to 2000 split about half and half between metropolitan areas and non-metropolitan areas.

Table 8: Grand Island's Domestic Migration 1995-2000: Metropolitan vs. Non-metropolitan

	<u>Inflow</u>	<u>Outflow</u>	<u>Net Migration</u>
Non-Metropolitan	5,126	5,834	-708
Metropolitan	4,346	5,903	-1,557
Total	9,472	11,737	-2,265

Source: U.S. Census Bureau, 2000 Census

More people came into the Grand Island area from non-metropolitan areas than metropolitan areas. Compared to Omaha, Grand Island had drastically less mobility to and from metropolitan areas.

Most people who move to Omaha come from metropolitan areas, and most people who leave Omaha go to metropolitan areas. Whereas in Grand Island, the split between metropolitan and non-metropolitan mobility is fairly even.

Conclusion

When we consider the brain drain issue, we find that it is more complex than anticipated. Net domestic migration is negative in Nebraska. But, this occurs primarily because of a lower inflow of residents into the state rather than a higher rate of outflow. In other words, as large a percentage of young people move out of neighboring states as

move out of Nebraska. Further, we see that Nebraska attracts a significant inflow of international migrants, particularly among younger workers. This influx of young people from other countries helps balance out the age distribution in the state.

Finally, when thinking about how we can attract more people to the state of Nebraska, it may be useful to note that Omaha gets a positive net migration from non-metropolitan areas, and that migrants seem to prefer mid-sized “micropolitan” areas like Grand Island over smaller towns such as Albion.

References

Berkner, Bonny and Carol S. Faber, 2003. “Geographical Mobility: 1995 to 2000,” *Census 2000 Brief*. Sept: 1-10.

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