The Impact of Changing Births on Nebraska’s School Aged Children

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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.¹

Figure 1. Births for Nebraska, 1946 to 2013

![Births for Nebraska, 1946 to 2013](image)

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

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¹ With assistance from Byungwoo Shine Cho, School of Public Administration, UNO.
² 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**

![Graph showing the estimated number of children aged 5 to 17 years based on births and actual K-12 enrollment for Nebraska from 1963 to 2013/2018. The graph illustrates a significant drop in births and enrollment during the Baby Bust (1965-1975) followed by an increase in the 1980s due to immigration and the Baby Boom Generation reaching childbearing age, and a recent drop in 2008 followed by a recovery in recent years.]

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 childbearing 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 childbearing 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 childbearing 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 inmigration 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
The Impacts of Changing Births on Nebraska’s School Aged Children

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.
The Impacts of Changing Births on Nebraska’s School Aged Children

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.
The Impacts of Changing Births on Nebraska’s School Aged Children

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
The Impacts of Changing Births on Nebraska’s School Aged Children

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

![County Membership by Grade by Non-metropolitan Status](image)

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

