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COMPONENTS OF POPULATION CHANGE, NEBRASKA COUNTIES, 1990-2000

by Jerome Deichert

Information from the 2000 Census released on March 15th by the US Census Bureau put Nebraska's population at 1,711,263 persons. This was an 8.4 percent increase since the 1990 Census count.

The state's population grew in two ways: births exceeded deaths, and more people moved into the state than moved out. The difference between births and deaths is referred to as **natural change**. If births exceed deaths, there is a natural increase in population; but if deaths exceed births, there is natural decrease in population. The difference between the number of people who move into an area and those who move out is **net migration**. Net immigration adds to an area's population and means that more people moved into an area than out of an area.

Net outmigration, on the other hand, subtracts from an area's population and means that more people moved out of an area than moved into an area.


The information needed to measure natural change and net migration is not collected by the Census Bureau but can be measured by using other sources. The attached tables present this information for Nebraska and its counties. The two main components of natural change, births and deaths, are reported by the Nebraska Division of Vital Statistics. The number for net migration, however, is not measured directly. Instead, it is the difference between the actual population change between the 1990 and 2000 Censuses and the natural change in population.

Net migration improved substantially during the 1990s. Between 1990 and 2000, Nebraska gained 48,234 persons or 3.1 percent due to net immigration (see Table 1). This is a significant turnaround from the 1980s when there was a net outmigration of more than 100,000 persons and more than 6.0 percent.

Although all areas of the state shared in the net immigration, the state's more populous counties were more likely to record net immigration. A

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total of 42 counties had net immigration compared to 51 counties with net outmigration (see Map 1). During the 1980s, only 3 counties experienced net immigration. Dawson County, the state's fastest growing county, also had the highest immigration rate of 14.7 percent. Its neighbor to the south, Gosper County, followed with an immigration rate of 13.0 percent. Other counties with immigration above 10.0 percent were Saline (10.6 percent), Colfax (10.3 percent), Washington (10.3 percent), and Dakota (10.2 percent).

Blaine County recorded the largest loss of people due to outmigration (18.5 percent). Other counties with the rates of net outmigration exceeding 10.0 percent were Thomas (-15.2 percent), Hitchcock (-14.3 percent), Hayes (-13.6 percent), Logan (-12.3 percent), Wheeler (-12.2 percent), Box Butte (-11.1 percent), Rock (-10.8 percent), and Boyd (-10.7 percent).

During the 1990s, 52 counties had more births than deaths (see Map 2). This means that 41 Nebraska counties lost population because deaths were greater than births. Most of the counties that reported declines in total population also reported more deaths than births. In fact, 11 counties experienced net immigration but lost population anyway because the number of deaths during the decade exceeded the number of births.

Overall, 40 of Nebraska's 93 counties added population during the 1990s (see Map 3). The reasons for this growth could have resulted from natural change, net migration, or both. The majority (22) of the growing counties added population both from natural change and from net migration. These counties, with both immigration and natural increase, were among the state's more populous counties, accounting for nearly 75 percent of Nebraska's population. Table 2 shows that this group of counties included all of the metropolitan counties and the majority of the nonmetropolitan counties that contained a city of 8,000 persons or more. Map 4 shows how natural change and net migration are related to population change.

Additionally, 9 of the growing counties had net outmigration, but the excess of births over deaths

has greater than the loss due to outmigration. On the other hand, 7 counties added population because their net immigration exceeded their losses due to greater deaths than births.

Looking at the 53 counties that lost population during the 1990s, the majority (23) declined because of both net outmigration and deaths being greater than births. This group of counties was among the state's less populated counties containing a little more than 6 percent of Nebraska's population. Moreover, most do not have a town with 2,500 or more persons, and this is the case for most of the counties with declining populations.

Nineteen counties lost population because their net outmigration was larger than their natural increase. In contrast, there were 11 counties that lost population despite the fact that they reported net immigration.

Table 1. Components of Population Change, Nebraska Counties, 1990 to 2000

| State County | | | | | Number 1990-00 | | | Percentage ⁵ 1990-00 | | |
|-----------------------|-----------|-------------------|--------------------------------|--------------------------------|----------------------|--------------------------------|-------------------------------|---------------------------------|--------------------------------|-------------------------------|
| | 2000 | 1990 ² | Births 1990-99 ³ | Deaths 1990-99 ³ | Population Change | Natural Change ³ | Net Migration ⁴ | Population Change | Natural Change ³ | Net Migration ⁴ |
| Nebraska ¹ | 1,711,263 | 1,578,417 | 235,210 | 150,599 | 132,846 | 84,611 | 48,234 | 8.4 | 5.4 | 3.1 |
| Adams | 31,151 | 29,625 | 4,119 | 3,211 | 1,526 | 908 | 618 | 5.2 | 3.1 | 2.1 |
| Antelope | 7,452 | 7,965 | 925 | 923 | -513 | 2 | -515 | -6.4 | 0.0 | -6.5 |
| Arthur | 444 | 462 | 49 | 41 | -18 | 8 | -26 | -3.9 | 1.7 | -5.6 |
| Banner | 819 | 852 | 64 | 54 | -33 | 10 | -43 | -3.9 | 1.2 | -5.0 |
| Blaine | 583 | 675 | 93 | 60 | -92 | 33 | -125 | -13.6 | 4.9 | -18.5 |
| Boone | 6,259 | 6,667 | 784 | 759 | -408 | 25 | -433 | -6.1 | 0.4 | -6.5 |
| Box Butte | 12,158 | 13,130 | 1,746 | 1,258 | -972 | 488 | -1,460 | -7.4 | 3.7 | -11.1 |
| Boyd | 2,438 | 2,835 | 302 | 395 | -397 | -93 | -304 | -14.0 | -3.3 | -10.7 |
| Brown | 3,525 | 3,657 | 442 | 469 | -132 | -27 | -105 | -3.6 | -0.7 | -2.9 |
| Buffalo | 42,259 | 37,447 | 5,516 | 3,016 | 4,812 | 2,500 | 2,312 | 12.9 | 6.7 | 6.2 |
| Burt | 7,791 | 7,868 | 817 | 1,147 | -77 | -330 | 253 | -1.0 | -4.2 | 3.2 |
| Butler | 8,767 | 8,601 | 1,060 | 1,085 | 166 | -25 | 191 | 1.9 | -0.3 | 2.2 |
| Cass | 24,334 | 21,318 | 3,176 | 2,005 | 3,016 | 1,171 | 1,845 | 14.1 | 5.5 | 8.7 |
| Cedar | 9,615 | 10,131 | 1,314 | 1,188 | -516 | 126 | -642 | -5.1 | 1.2 | -6.3 |
| Chase | 4,068 | 4,381 | 499 | 557 | -313 | -58 | -255 | -7.1 | -1.3 | -5.8 |
| Cherry | 6,148 | 6,307 | 800 | 606 | -159 | 194 | -353 | -2.5 | 3.1 | -5.6 |
| Cheyenne | 9,830 | 9,494 | 1,210 | 1,051 | 336 | 159 | 177 | 3.5 | 1.7 | 1.9 |
| Clay | 7,039 | 7,123 | 859 | 873 | -84 | -14 | -70 | -1.2 | -0.2 | -1.0 |
| Colfax | 10,441 | 9,139 | 1,449 | 1,092 | 1,302 | 357 | 945 | 14.2 | 3.9 | 10.3 |
| Cuming | 10,203 | 10,117 | 1,327 | 1,212 | 86 | 115 | -29 | 0.9 | 1.1 | -0.3 |
| Custer | 11,793 | 12,270 | 1,455 | 1,725 | -477 | -270 | -207 | -3.9 | -2.2 | -1.7 |
| Dakota | 20,253 | 16,742 | 3,381 | 1,570 | 3,511 | 1,811 | 1,700 | 21.0 | 10.8 | 10.2 |
| Dawes | 9,060 | 9,021 | 1,053 | 925 | 39 | 128 | -89 | 0.4 | 1.4 | -1.0 |
| Dawson | 24,365 | 19,940 | 3,840 | 2,349 | 4,425 | 1,491 | 2,934 | 22.2 | 7.5 | 14.7 |
| Deuel | 2,098 | 2,237 | 187 | 291 | -139 | -104 | -35 | -6.2 | -4.6 | -1.6 |
| Dixon | 6,339 | 6,143 | 786 | 705 | 196 | 81 | 115 | 3.2 | 1.3 | 1.9 |
| Dodge | 36,160 | 34,500 | 4,334 | 3,903 | 1,660 | 431 | 1,229 | 4.8 | 1.2 | 3.6 |
| Douglas | 463,585 | 416,444 | 70,563 | 35,010 | 47,141 | 35,553 | 11,588 | 11.3 | 8.5 | 2.8 |
| Dundy | 2,292 | 2,582 | 248 | 352 | -290 | -104 | -186 | -11.2 | -4.0 | -7.2 |
| Fillmore | 6,634 | 7,103 | 789 | 969 | -469 | -180 | -289 | -6.6 | -2.5 | -4.1 |
| Franklin | 3,574 | 3,938 | 393 | 645 | -364 | -252 | -112 | -9.2 | -6.4 | -2.8 |
| Frontier | 3,099 | 3,101 | 339 | 315 | -2 | 24 | -26 | -0.1 | 0.8 | -0.8 |
| Furnas | 5,324 | 5,553 | 603 | 1,008 | -229 | -405 | 176 | -4.1 | -7.3 | 3.2 |
| Gage | 22,993 | 22,794 | 2,602 | 2,983 | 199 | -381 | 580 | 0.9 | -1.7 | 2.5 |
| Garden | 2,292 | 2,460 | 198 | 412 | -168 | -214 | 46 | -6.8 | -8.7 | 1.9 |
| Garfield | 1,902 | 2,141 | 210 | 326 | -239 | -116 | -123 | -11.2 | -5.4 | -5.7 |
| Gosper | 2,143 | 1,928 | 237 | 272 | 215 | -35 | 250 | 11.2 | -1.8 | 13.0 |
| Grant | 747 | 769 | 106 | 63 | -22 | 43 | -65 | -2.9 | 5.6 | -8.5 |
| Greeley | 2,714 | 3,006 | 362 | 378 | -292 | -16 | -276 | -9.7 | -0.5 | -9.2 |
| Hall | 53,534 | 48,925 | 8,352 | 4,899 | 4,609 | 3,453 | 1,156 | 9.4 | 7.1 | 2.4 |

Table 1. Continued

| State County | | | | | Number 1990-00 | | | Percentage ⁵ 1990-00 | | |
|-----------------|---------|-------------------|--------------------------------|--------------------------------|----------------------|--------------------------------|-------------------------------|---------------------------------|--------------------------------|-------------------------------|
| | 2000 | 1990 ² | Births 1990-99 ³ | Deaths 1990-99 ³ | Population Change | Natural Change ³ | Net Migration ⁴ | Population Change | Natural Change ³ | Net Migration ⁴ |
| Hamilton | 9,403 | 8,862 | 1,175 | 960 | 541 | 215 | 326 | 6.1 | 2.4 | 3.7 |
| Harlan | 3,786 | 3,810 | 401 | 541 | -24 | -140 | 116 | -0.6 | -3.7 | 3.0 |
| Hayes | 1,068 | 1,222 | 102 | 90 | -154 | 12 | -166 | -12.6 | 1.0 | -13.6 |
| Hitchcock | 3,111 | 3,750 | 333 | 437 | -639 | -104 | -535 | -17.0 | -2.8 | -14.3 |
| Holt | 11,551 | 12,599 | 1,531 | 1,364 | -1,048 | 167 | -1,215 | -8.3 | 1.3 | -9.6 |
| Hooker | 783 | 793 | 72 | 153 | -10 | -81 | 71 | -1.3 | -10.2 | 9.0 |
| Howard | 6,567 | 6,057 | 779 | 726 | 510 | 53 | 457 | 8.4 | 0.9 | 7.5 |
| Jefferson | 8,333 | 8,759 | 854 | 1,246 | -426 | -392 | -34 | -4.9 | -4.5 | -0.4 |
| Johnson | 4,488 | 4,673 | 479 | 644 | -185 | -165 | -20 | -4.0 | -3.5 | -0.4 |
| Kearney | 6,882 | 6,629 | 856 | 773 | 253 | 83 | 170 | 3.8 | 1.3 | 2.6 |
| Keith | 8,875 | 8,584 | 964 | 957 | 291 | 7 | 284 | 3.4 | 0.1 | 3.3 |
| Keya Paha | 983 | 1,029 | 119 | 112 | -46 | 7 | -53 | -4.5 | 0.7 | -5.2 |
| Kimball | 4,089 | 4,108 | 420 | 504 | -19 | -84 | 65 | -0.5 | -2.0 | 1.6 |
| Knox | 9,374 | 9,564 | 1,123 | 1,425 | -190 | -302 | 112 | -2.0 | -3.2 | 1.2 |
| Lancaster | 250,291 | 213,641 | 32,408 | 15,656 | 36,650 | 16,752 | 19,898 | 17.2 | 7.8 | 9.3 |
| Lincoln | 34,632 | 32,508 | 4,468 | 3,321 | 2,124 | 1,147 | 977 | 6.5 | 3.5 | 3.0 |
| Logan | 774 | 878 | 79 | 75 | -104 | 4 | -108 | -11.8 | 0.5 | -12.3 |
| Loup | 712 | 683 | 60 | 66 | 29 | -6 | 35 | 4.2 | -0.9 | 5.1 |
| McPherson | 533 | 546 | 49 | 40 | -13 | 9 | -22 | -2.4 | 1.6 | -4.0 |
| Madison | 35,226 | 32,655 | 5,477 | 3,418 | 2,571 | 2,059 | 512 | 7.9 | 6.3 | 1.6 |
| Merrick | 8,204 | 8,049 | 1,067 | 967 | 155 | 100 | 55 | 1.9 | 1.2 | 0.7 |
| Morrill | 5,440 | 5,423 | 674 | 723 | 17 | -49 | 66 | 0.3 | -0.9 | 1.2 |
| Nance | 4,038 | 4,275 | 501 | 549 | -237 | -48 | -189 | -5.5 | -1.1 | -4.4 |
| Nemaha | 7,576 | 7,980 | 771 | 939 | -404 | -168 | -236 | -5.1 | -2.1 | -3.0 |
| Nuckolls | 5,057 | 5,786 | 510 | 794 | -729 | -284 | -445 | -12.6 | -4.9 | -7.7 |
| Otoe | 15,396 | 14,252 | 1,751 | 1,946 | 1,144 | -195 | 1,339 | 8.0 | -1.4 | 9.4 |
| Pawnee | 3,087 | 3,317 | 295 | 539 | -230 | -244 | 14 | -6.9 | -7.4 | 0.4 |
| Perkins | 3,200 | 3,367 | 299 | 409 | -167 | -110 | -57 | -5.0 | -3.3 | -1.7 |
| Phelps | 9,747 | 9,715 | 1,281 | 1,184 | 32 | 97 | -65 | 0.3 | 1.0 | -0.7 |
| Pierce | 7,857 | 7,827 | 953 | 905 | 30 | 48 | -18 | 0.4 | 0.6 | -0.2 |
| Platte | 31,662 | 29,820 | 4,606 | 2,391 | 1,842 | 2,215 | -373 | 6.2 | 7.4 | -1.3 |
| Polk | 5,639 | 5,668 | 653 | 799 | -29 | -146 | 117 | -0.5 | -2.6 | 2.1 |
| Red Willow | 11,448 | 11,705 | 1,465 | 1,259 | -257 | 206 | -463 | -2.2 | 1.8 | -4.0 |
| Richardson | 9,531 | 9,937 | 1,100 | 1,559 | -406 | -459 | 53 | -4.1 | -4.6 | 0.5 |
| Rock | 1,756 | 2,019 | 175 | 220 | -263 | -45 | -218 | -13.0 | -2.2 | -10.8 |
| Saline | 13,843 | 12,715 | 1,476 | 1,702 | 1,128 | -226 | 1,354 | 8.9 | -1.8 | 10.6 |
| Sarpy | 122,595 | 102,583 | 19,453 | 4,534 | 20,012 | 14,919 | 5,093 | 19.5 | 14.5 | 5.0 |
| Saunders | 19,830 | 18,285 | 2,430 | 1,844 | 1,545 | 586 | 959 | 8.4 | 3.2 | 5.2 |
| Scotts Bluff | 36,951 | 36,025 | 5,289 | 4,032 | 926 | 1,257 | -331 | 2.6 | 3.5 | -0.9 |
| Seward | 16,496 | 15,450 | 1,748 | 1,599 | 1,046 | 149 | 897 | 6.8 | 1.0 | 5.8 |

Table 1. Continued

| State County | | | | | Number 1990-00 | | | Percentage ⁵ 1990-00 | | |
|-----------------|--------|-------------------|--------------------------------|--------------------------------|----------------------|--------------------------------|-------------------------------|---------------------------------|--------------------------------|-------------------------------|
| | 2000 | 1990 ² | Births 1990-99 ³ | Deaths 1990-99 ³ | Population Change | Natural Change ³ | Net Migration ⁴ | Population Change | Natural Change ³ | Net Migration ⁴ |
| Sheridan | 6,198 | 6,750 | 753 | 892 | -552 | -139 | -413 | -8.2 | -2.1 | -6.1 |
| Sherman | 3,318 | 3,718 | 394 | 474 | -400 | -80 | -320 | -10.8 | -2.2 | -8.6 |
| Sioux | 1,475 | 1,549 | 115 | 98 | -74 | 17 | -91 | -4.8 | 1.1 | -5.9 |
| Stanton | 6,455 | 6,244 | 825 | 470 | 211 | 355 | -144 | 3.4 | 5.7 | -2.3 |
| Thayer | 6,055 | 6,635 | 652 | 1,017 | -580 | -365 | -215 | -8.7 | -5.5 | -3.2 |
| Thomas | 729 | 851 | 85 | 78 | -122 | 7 | -129 | -14.3 | 0.8 | -15.2 |
| Thurston | 7,171 | 6,936 | 1,514 | 809 | 235 | 705 | -470 | 3.4 | 10.2 | -6.8 |
| Valley | 4,647 | 5,169 | 524 | 685 | -522 | -161 | -361 | -10.1 | -3.1 | -7.0 |
| Washington | 18,780 | 16,607 | 2,002 | 1,535 | 2,173 | 467 | 1,706 | 13.1 | 2.8 | 10.3 |
| Wayne | 9,851 | 9,364 | 1,129 | 685 | 487 | 444 | 43 | 5.2 | 4.7 | 0.5 |
| Webster | 4,061 | 4,279 | 442 | 749 | -218 | -307 | 89 | -5.1 | -7.2 | 2.1 |
| Wheeler | 886 | 948 | 133 | 79 | -62 | 54 | -116 | -6.5 | 5.7 | -12.2 |
| York | 14,598 | 14,428 | 1,807 | 1,523 | 170 | 284 | -114 | 1.2 | 2.0 | -0.8 |

¹The state counts are final resident counts. In December 2000, the Census Bureau released Nebraska's reapportionment count at 1,715,369. This number includes persons who are U.S. military or federal employees and their dependents stationed overseas and who listed Nebraska as their home state.

²The 1990 population totals for Nebraska as well as Howard, Knox, Merrick, and Polk counties are corrected counts. The Census Bureau issued corrected population counts for these areas after the original 1990 counts and associated data products were published. Other detailed population tabulations were not revised to reflect the corrections, so the final counts reported here will differ slightly from the population totals in other tabulations.

³Births and deaths are the totals for the 10 calendar years preceding the census year. Natural change is simply the difference between births and deaths.

⁴Net migration is the difference between population change and natural change. A positive value means that more people moved into an area than out of an area. A negative value means that more people moved out than moved in.

⁵The percentage value is based on the initial year. Therefore, the net migration percent for 1990-00 is the net migration number expressed as a percentage of the 1990 population.

Source: US Census Bureau (population) and Nebraska Division of Vital Statistics (births and deaths)

Compiled by: Nebraska State Data Center, Center for Public Affairs Research, University of Nebraska at Omaha

Table 2. Nebraska Counties Classified By Population Change, Net Migration, and Natural Change, 1990-2000**Counties With Increasing Population Between 1990 and 2000**

| Both Net Immigration and Natural Increase | | Natural Increase Larger Than Net Outmigration | Net Immigration Larger Than Natural Decrease |
|--|-----------------------|--|---|
| Adams* | Howard | Cuming [#] | Butler [#] |
| Buffalo* | Kearney [#] | Dawes [#] | Gage* |
| Cass | Keith [#] | Phelps [#] | Gosper |
| Cheyenne [#] | Lancaster | Pierce | Loup |
| Colfax [#] | Lincoln* | Platte* | Morrill |
| Dakota | Madison* | Scotts Bluff* | Otoe [#] |
| Dawson* | Merrick [#] | Stanton | Saline [#] |
| Dixon | Sarpy | Thurston | |
| Dodge* | Saunders [#] | York* | |
| Douglas | Seward [#] | | |
| Hall* | Washington | | |
| Hamilton [#] | Wayne [#] | | |

Counties With Decreasing Population Between 1990 and 2000

| Both Net Outmigration and Natural Decrease | | Natural Increase Smaller Than Net Outmigration | | Net Immigration Smaller Than Natural Decrease |
|---|------------------------|---|-------------------------|--|
| Boyd | Jefferson [#] | Antelope | Keya Paha | Burt |
| Brown | Johnson | Arthur | Logan | Furnas |
| Chase | Nance | Banner | McPherson | Garden |
| Clay | Nemaha [#] | Blaine | Red Willow [#] | Harlan |
| Custer [#] | Nuckolls | Boone | Sioux | Hooker |
| Deuel | Perkins | Box Butte* | Thomas | Kimball [#] |
| Dundy | Rock | Cedar | Wheeler | Knox |
| Fillmore | Sheridan | Cherry [#] | | Pawnee |
| Franklin | Sherman | Frontier | | Polk |
| Garfield | Thayer | Grant | | Richardson [#] |
| Greeley | Valley | Hayes | | Webster |
| Hitchcock | | Holt [#] | | |

Bold type indicates metropolitan counties.

* Indicates nonmetropolitan counties with largest city 8,000 or more.

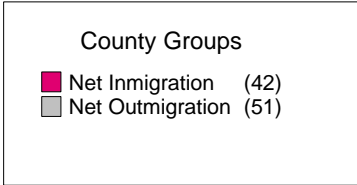
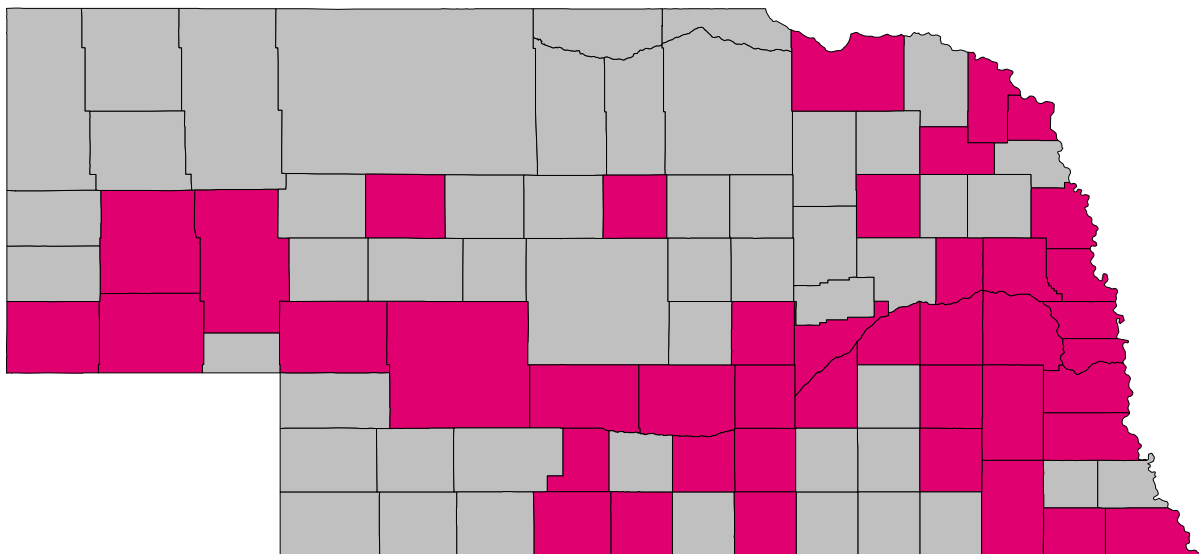
[#] Indicates nonmetropolitan counties with with largest city 2,500 to 7,999.

Regular type indicates nonmetropolitan counties with no city at or above 2,500.

Natural increase--births exceed deaths. **Natural decrease**--deaths exceeded births.

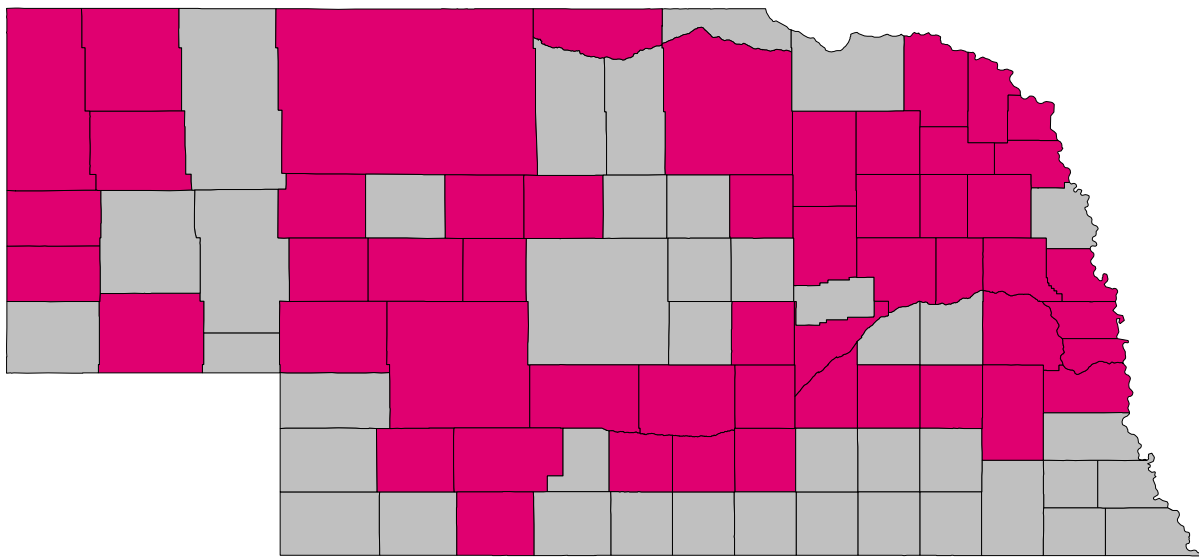
Net immigration--more people move into a county than out of a county. **Net outmigration**--more people than move out of a county than into a county.

Map 1 Nebraska Counties Classified By Net Migration, 1990-2000



Source: UNO Center for Public Affairs Research

Map 2 Nebraska Counties Classified By Natural Change, 1990-2000

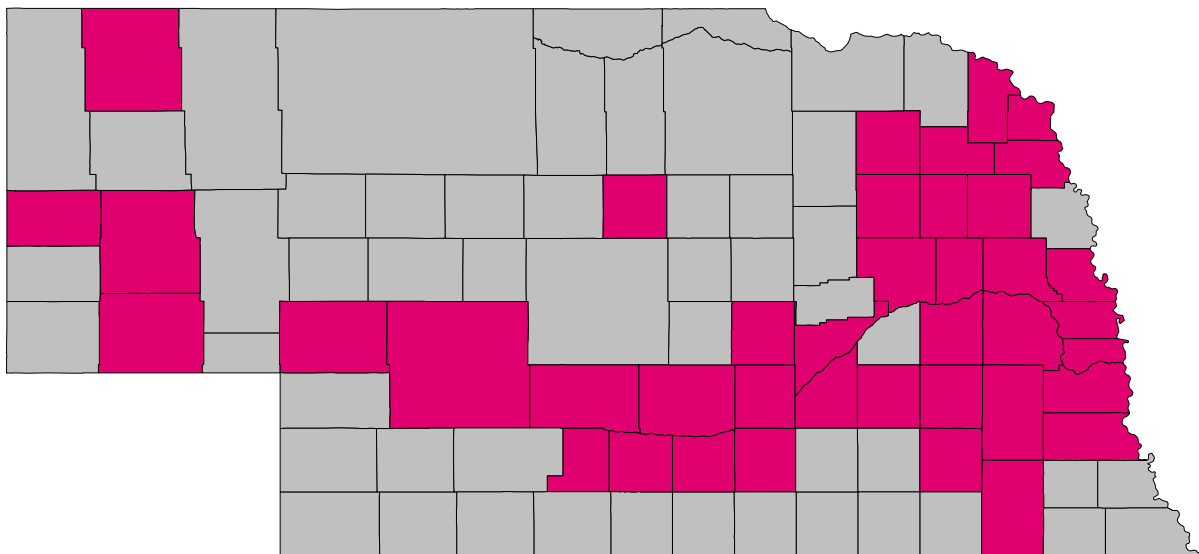


County Groups

- Births Greater Than Deaths (52)
- Deaths Greater Than Births (41)

Source: Nebraska Division of Vital Statistics

Map 3 Nebraska Counties Classified By Population Change, 1990-2000



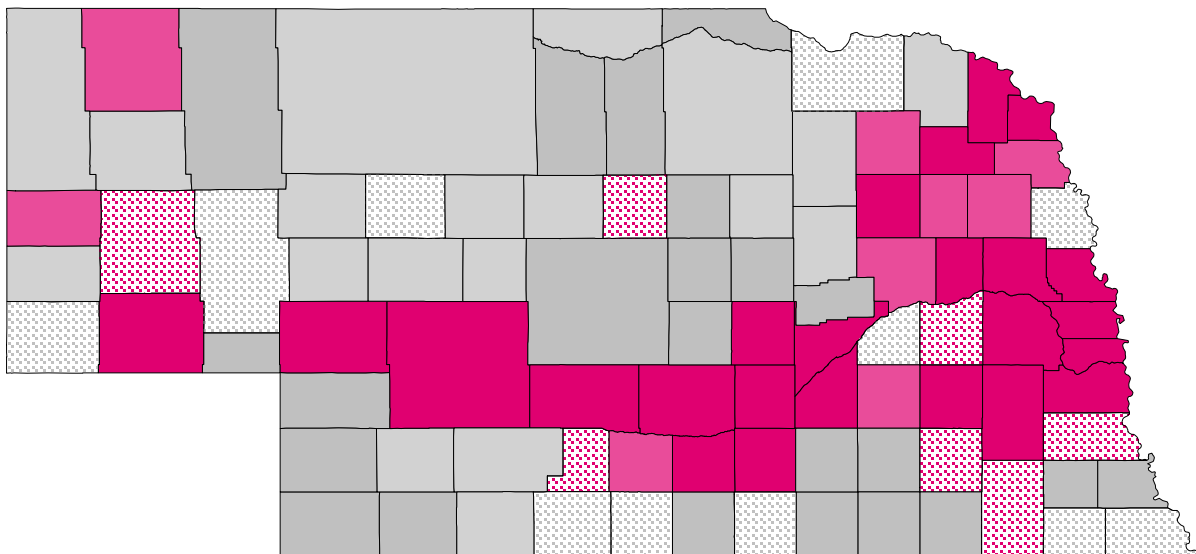
County Groups

- Growing (40)
- Declining (53)

Source: US Census Bureau

Map 4

Nebraska Counties Classified By Population Change, Natural Change, and Net Migration 1990-2000



| County Groups | | |
|---------------|---|------|
| ■ | Growth overall, both net immigration and natural increase | (24) |
| ▨ | Growth overall, net immigration larger than natural decrease | (7) |
| ■ | Growth overall, natural increase larger than net outmigration | (9) |
| ■ | Decline overall, natural increase smaller than net outmigration | (19) |
| ▨ | Decline overall, net immigration smaller than natural decrease | (11) |
| ■ | Decline overall, both net outmigration and natural decrease | (23) |

Source: US Census Bureau (population) and Nebraska Division of Vital Statistics (births and deaths)