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Demographic Changes in West Central Minnesota

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Report Overview

This report examines population cohort changes, children and youth population, school enrollment, and birth and mortality data for the West Central Minnesota area. This reports was prepared following a request by Holly Witt of the Rural Help Network, founded by the West Central Initiative in Fergus Falls, Minnesota.

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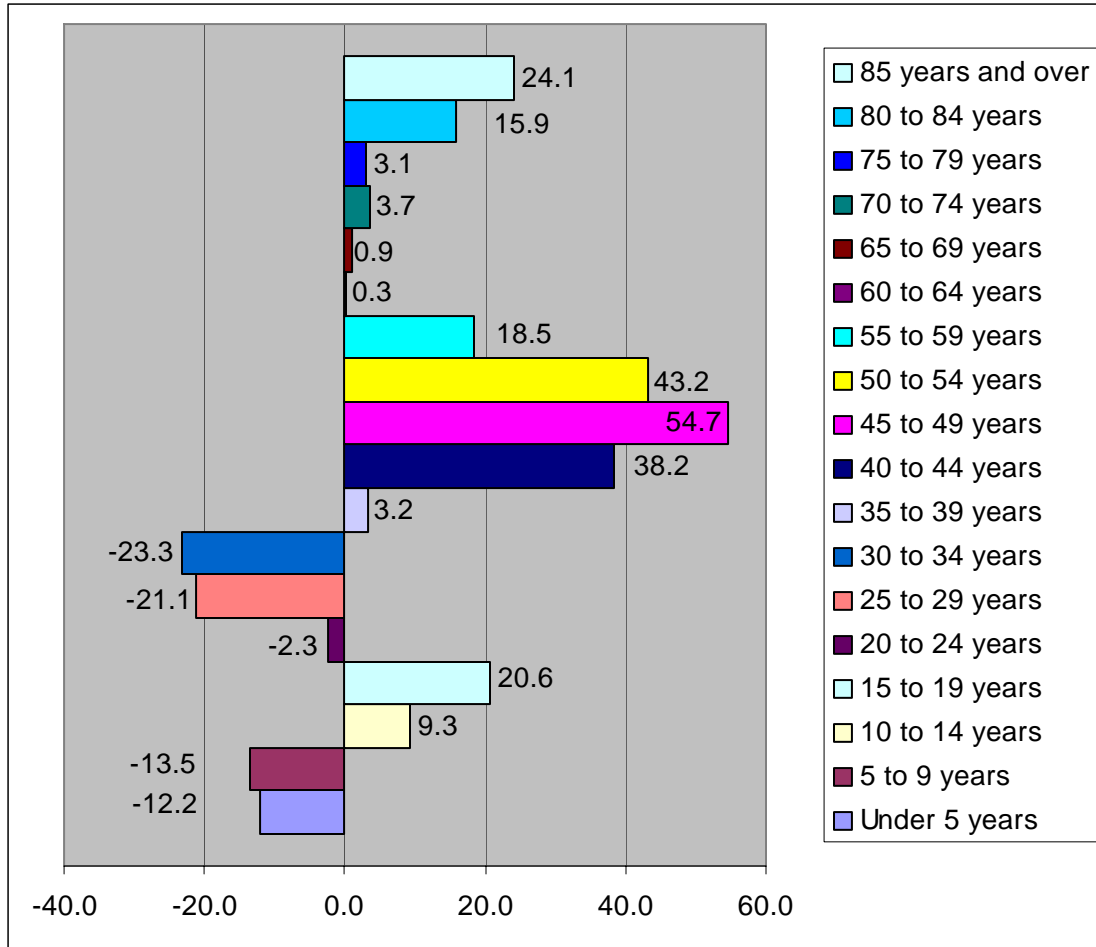
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The following analysis encompasses the West Central Minnesota area that includes the counties of Becker, Clay, Douglas, Grant, Otter Tail, Pope, Stevens, Traverse and Wilkin.

Total Population



In 2000, the population in West Central Minnesota grew by 6.5%, from 197,295 in 1990 to 210,059. The largest gain, over 50%, was found in the 45-59 age category, while the 40 to 44, 50 to 54, and 80 to 84 also had significant gains of 20-40%. Losses of 20% and over were found in the age categories of 25 to 29 years and 30 to 34 years.

Figure 1: Percent change in age categories, 1990 to 2000.

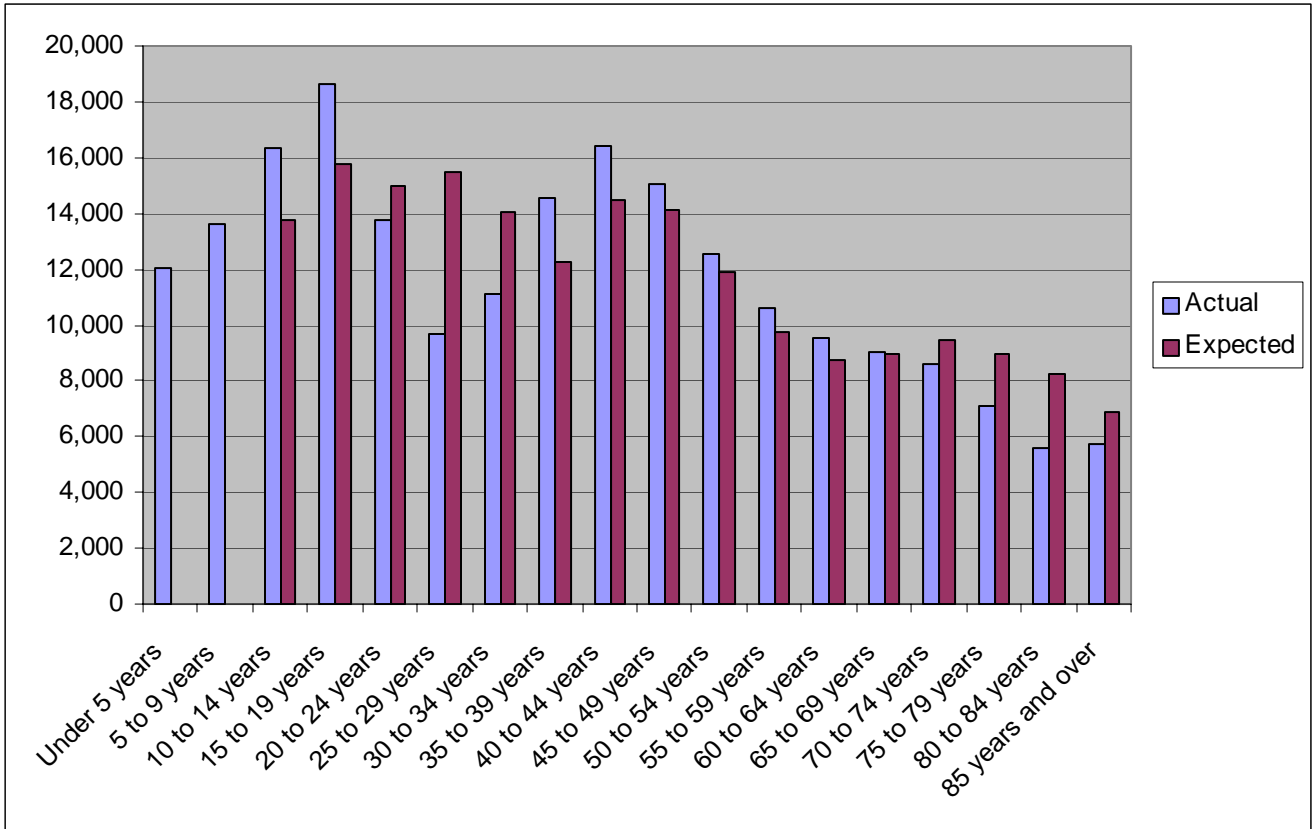


Figure 2: Actual 2000 population vs. 1990 predicted population of age category.¹

For the cohort analysis, the age category found in the 1990 census is moved ahead 10 years and a comparison is made between the actual 2000 Census data and the expected results. The higher than expected populations in the categories of those aged 10 to 19 indicates that there was an influx of families with children. Most age categories show a higher than expected population, aside from those aged 20 to 29 years of age and a senior population, whose death rate leads to the lower than expected results.

¹ The age category under 5 years in 1990 is compared with age 10 to 15 in 2000 (+10 years)

Children under 18

The 1990 and 2000 Census data indicates a tiny, albeit positive, increase of 0.1% in the number of youth under the age of 18 in West Central Minnesota. In 1990 there were 52,330 people under 18 while in 2000 there were 52,431. As we see in the figures below, there is a variation within the region.

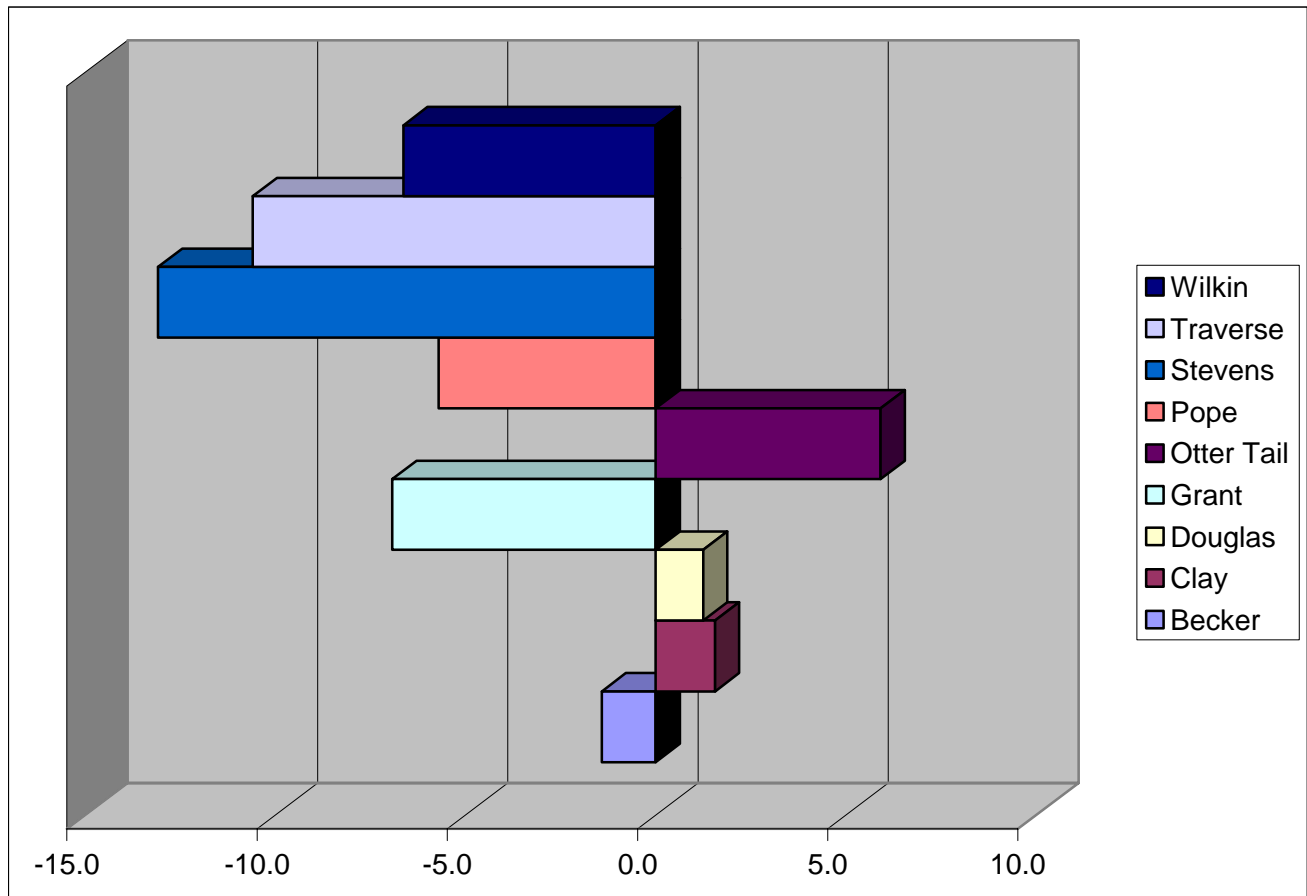


Figure 3: Percent Change in Population Under Age 18 in WC Minnesota

Stevens and Traverse counties witnessed the largest percentage drop in the number of people under age 18, of 13.1% and 10.6% respectively. Only Otter tail, Clay, and Douglas counties showed increases. In pure numbers, the large population size of Otter Tail county accounts for much of the increase in this age group, as it grew from 13,443 in 1990 to 14,238 in 2000. The raw numbers can be seen in the table below.

	2000	1990	% Change
Becker	7,993	8,108	-1.4
Clay	12,822	12,625	1.6
Douglas	7,877	7,780	1.2
Grant	1,505	1,617	-6.9
Otter Tail	14,238	13,443	5.9
Pope	2,791	2,960	-5.7
Stevens	2,173	2,500	-13.1
Traverse	1,047	1,171	-10.6
Wilkin	1,985	2,126	-6.6

Table 1: Number under 18, by county, in 1990 and 2000

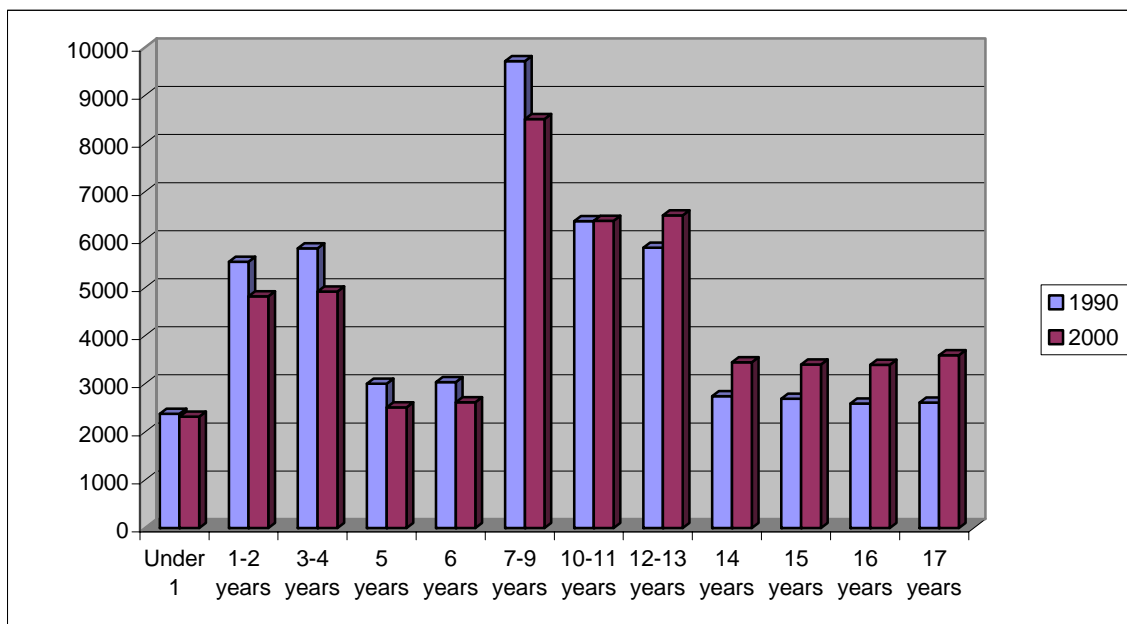


Figure 4: Population by age category in WC MN, 1990 and 2000

Figure 4 shows the different age categories for the years 1990 and 2000. The younger age categories show decreases while the older age categories show increases – the dividing line appears around 10 years of age. This indicates a declining birth rate in the region in relation to 1990 and is supported by earlier evidence that a majority of growth is not occurring in the prime child-bearing years, but in those aged 40 to 60.

Age	1990	2000	Percent Change
3 to 4	5818	4921	-15.4%
5	3002	2508	-16.5
6	3034	2617	-13.7
7 to 9	9716	8508	-12.4
10 to 11	6385	6389	+0.1
12 to 13	5831	6506	+11.6
14	2744	3452	+25.8
15	2687	3402	+26.6
16	2590	3395	+31.1
17	2608	3596	+37.9
TOTAL	44,415	45,294	+19.3

Table 3. Population by age category, 1990 and 2000.

This table provides the data used for Figure 4.

1990 Age	1990 Pop.	2000 Age	1990 Age Cohort Pop. in 2000	
3 to 4	5818	13 to 14	6749	+931
5	3002	15	3402	+400
6	3034	16	3395	+361
7 to 9	9716	17 to 19	11861	+2145
10 to 11	6385	20 to 21	7010	+625
12 to 13	5831	22 to 23	4891	-940
14	2744	24	1845	-899
15	2687	25	1851	-836
16	2590	26	1851	-739
17	2608	27	1895	-713
TOTAL	44,415		44,750	+335

Table 4. Population cohort changes between 1990 and 2000.

In Table 2, the population of those under age of 18 are examined in more detail to examine the changes in these age groups over the past 10 years. To complete this, as an example, the age categories for those aged "3 to 4" in 1990 is compared with those aged "13 to 14" in 2000 (+10 years). There is a significant increase in the number of youth that were ages 3 to 6 in 1990, and are now 13 to 16. This indicates a migration to the area by families with children over the age of 12, as supported by Figure 4. The growth in the number aged 7 to 9 in 1990 (who are now 17 to 19 in 2000) is impacted by a significant college student population in the region, which will skew the results. Further, there exists a consistent decrease in the number of youth in the region that were aged 13 to 17 in 1990, who now are 23 to 27 years of age, indicating an out-migration process.

		Enrolled	In public school
Nursery/preschool	<i>age 3-4</i>	3,137	2,330
Kindergarten	<i>age5</i>	2,627	2,352
Grade 1-4	<i>age6-9</i>	11,586	10,515
Grade 5-8	<i>age10-14</i>	13,078	12,155
Grade 9-12	<i>age15-18</i>	14,235	13,753
TOTAL		44,663	41,105

Table 5: Number of students enrolled, total and public schools, 2000 (Census SF3)

The table above examine the number of students enrolled in school at five levels – nursery/preschool, kindergarten, grade 1-4, grade 5-8, and grade 9-12. Of those enrolled, it also provides the number of students that attend public schools. Of the 44,663 students enrolled in these educational settings, 92% are enrolled in a public school.

		Enrolled	Expected	Difference
Nursery/preschool	<i>age 3-4</i>	3,137	4,921	-1,784
Kindergarten	<i>age5</i>	2,627	2,508	+119
Grade 1-4	<i>age6-9</i>	11,586	11,125	+461
Grade 5-8	<i>age10-14</i>	13,078	16,347	-3,269
Grade 9-12	<i>age15-18</i>	14,235	14,325	-90
TOTAL		44,663	49,226	-4,563

Table 6: Number of students enrolled in 2000 (Census SF3) vs. expected (Census SF1)

The enrollment data from the Census SF3 dataset was compared with data obtained from the Census SF1 dataset which examines the number of persons by age. This data is found in the Expected column of table 4. As we see, there is a fairly large difference between the number of student enrolled vs. the number of students we would expect to be enrolled. In comparison to expected numbers, there is a 36% decrease in nursery/preschool enrollment, 5% increase in kindergarten, 4% increase in grade 1-4, 20% decrease in grade 5-8, and 0.1% decrease in grade 9-12. These numbers need to be further examined by comparing the results with data obtained from the schools or some other source. This will be a challenge, as the school district boundaries do not match up well with either city or county boundaries.

Natality and Mortality Statistics

	Number of Births	Number of Deaths	Fertility Rate (per 1,000 pop. females 15-44)	Birth Rate (per 1,000 pop.)	Death Rate (per 1,000 pop.)	Natural Rate of Increase
Becker	360	306	65	12	10	2
Clay	647	411	51	13	8	5
Douglas	354	315	62	11	10	1
Grant	54	95	57	9	16	-7
Otter Tail	581	661	60	11	12	-1
Pope	103	152	58	10	14	-5
Stevens	117	90	52	12	9	3
Traverse	33	69	56	8	17	-9
Wilkin	94	81	72	13	11	2
WC MN	2,343	2,180	59.2	11	11.9	-9
State of MN	65,953	38,473	62	14	8	6

Table 7: 1999 birth and death rates for West Central Minnesota.²

The natality (birth) and mortality data is gathered through the Minnesota County Health Profiles. The most recent report, in 2000, provides data for 1999. Traverse county is rapidly losing population due to the natural rate of increase (in this case decrease) – which is the percentage change in the population due to the difference in the birth rate and the death rate. For the West Central Minnesota regions, a loss of 9% is due to the low birth rate and high death rate. This does not include migration figures.

² Source: Minnesota Health Profiles. <http://www.mnplan.state.mn.us/datanetweb/health.html>