



# Population Study

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## CHAPTER 4

Davison County Comprehensive Plan  
DAVISON COUNTY PLANNING PARTNERSHIP | 2021-2040

The concept of comparison groups was introduced in the first chapter. Certain data will be presented in comparison to similarly sized counties: Beadle, Brookings, Hughes and Yankton. The towns in Davison County and statewide statistics are utilized. The statistics for individual communities within comparison counties may point to different conclusions than the overall county numbers.

**Table 4.1** contains the historical growth rate for the comparative group along with Davison County. The 2020 Census data showed Davison County with a population of 19,890 persons. When compared to a population of 16,681 in 1960, the County experienced a 19.24% (3,209) increase in population. This may also be represented as an average annual increase of 53 persons per decade.

**TABLE 4.1**  
**Population Data: 1960 - 2020**

Area	1960	1970	1980	1990	2000	2010	2020	% Change 1960-2020	Annual Growth
<b>Counties</b>									
Beadle	21,682	20,877	19,195	18,253	17,023	17,398	18,338	-15.42%	-0.28%
Brookings	20,046	22,158	24,332	25,207	28,220	31,965	35,115	75.17%	0.94%
<b>Davison</b>	<b>16,681</b>	<b>17,319</b>	<b>17,820</b>	<b>17,503</b>	<b>18,741</b>	<b>19,397</b>	<b>19,890</b>	<b>19.24%</b>	<b>0.29%</b>
Hughes	12,725	11,632	14,220	14,817	16,481	17,022	17,560	38.00%	0.54%
Yankton	17,551	19,039	18,952	19,252	21,652	22,438	22,746	29.60%	0.43%
Average	24,883	25,910	28,253	30,220	33,938	22,826	22,730	-8.65%	-0.15%
<b>Cities</b>									
Ethan	297	309	351	312	330	282	328	10.44%	0.17%
Mitchell	12,555	13,425	13,916	13,798	14,558	15,166	15,599	24.25%	0.36%
Mount Vernon	379	398	402	368	477	415	500	31.93%	0.46%
<b>Townships</b>									
Badger	252	231	166	170	194	280	23	-90.87%	-3.91%
Baker	247	190	182	171	137	59	34	-86.23%	-3.25%
Beulah	285	341	393	369	420	299	238	-16.49%	-0.30%
Blendon	207	154	123	111	98	177	45	-78.26%	-2.51%
Lisbon	204	168	164	124	168	217	78	-61.76%	-1.59%
Mitchell	639	656	697	759	891	945	1,473	130.52%	1.40%
Mount Vernon	262	217	186	179	182	190	206	-21.37%	-0.40%
Perry	264	243	198	174	271	151	394	49.24%	0.67%
Prosper	298	290	493	500	563	562	524	75.84%	0.95%
Rome	309	353	275	238	234	413	250	-19.09%	-0.35%
Tobin	298	226	173	157	147	162	123	-58.72%	-1.46%
Union	185	118	101	73	71	79	75	-59.46%	-1.49%
<b>State</b>									
<b>South Dakota</b>	<b>680,514</b>	<b>666,257</b>	<b>690,768</b>	<b>696,004</b>	<b>754,844</b>	<b>814,180</b>	<b>879,336</b>	<b>29.22%</b>	<b>0.43%</b>

Sources: Census of Population, 1960-2020

Figure 4.1; County Population Change, 1960-2020

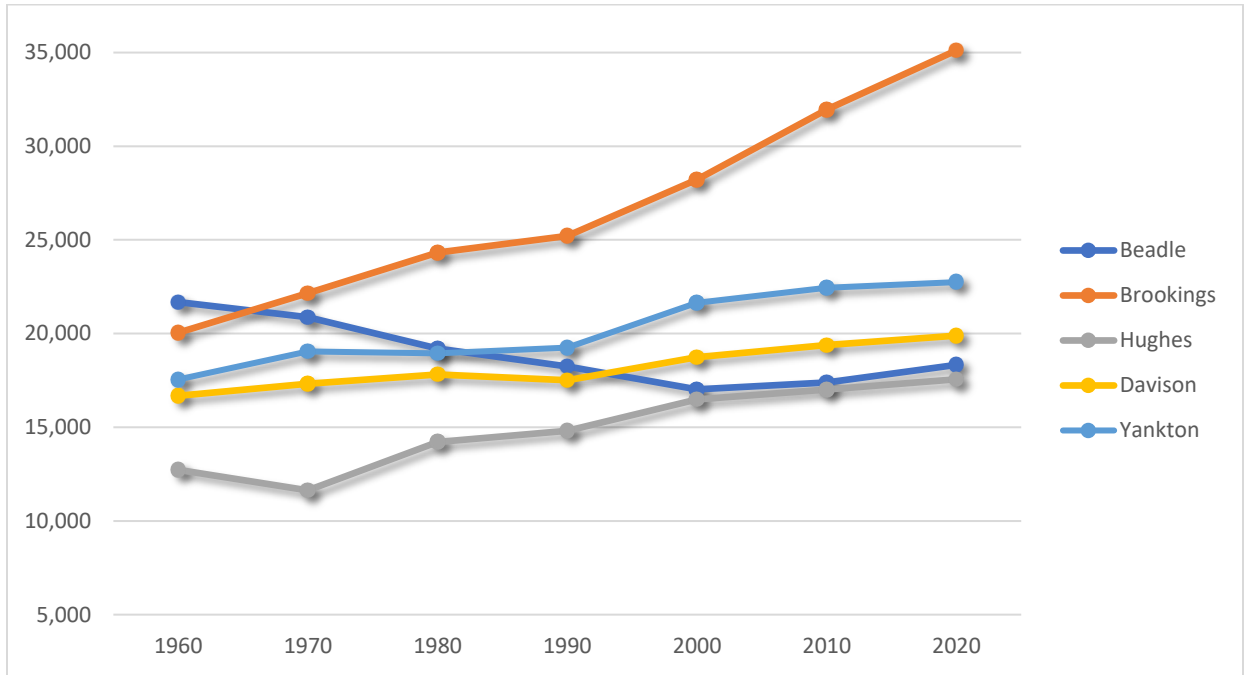


Figure 4.2; Davison County Townships, Population Change 1960-2020

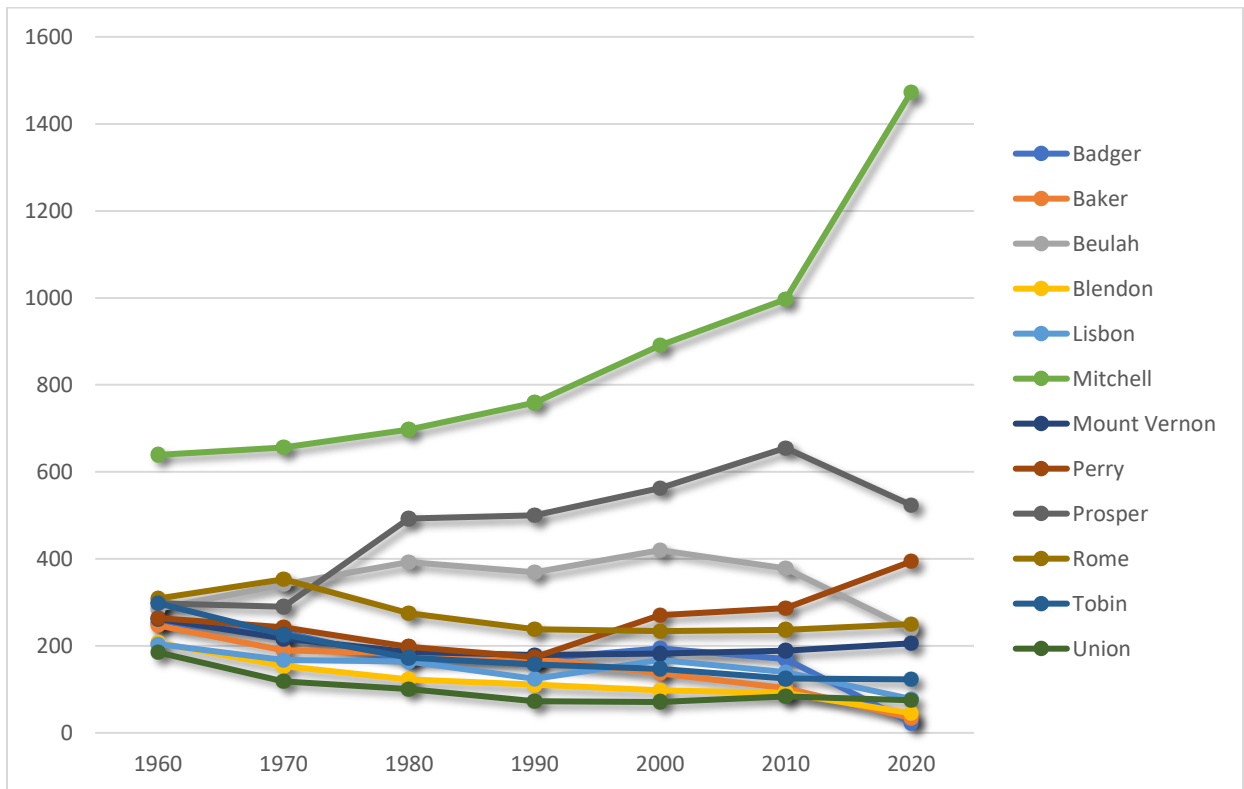
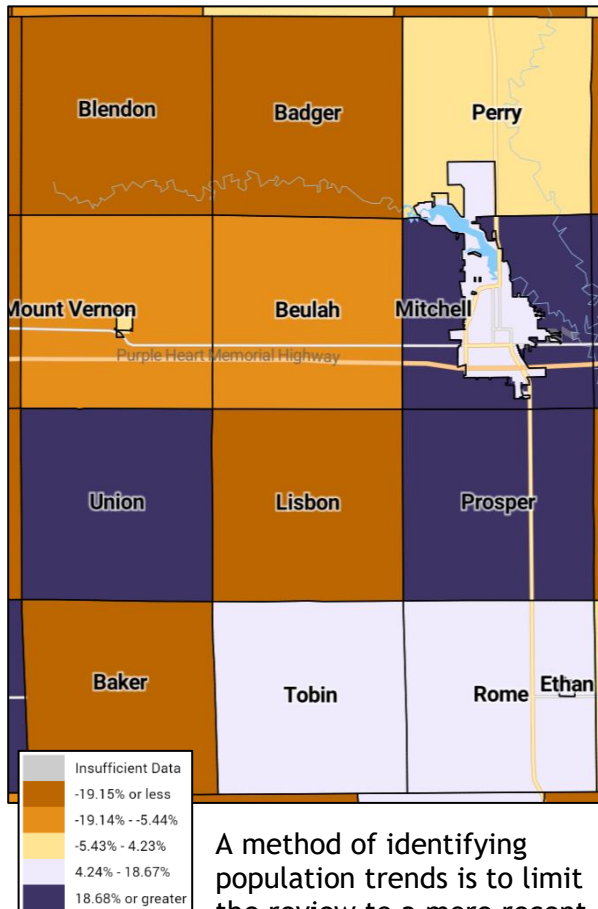


Figure 4.3; Percent Change, 2000-2020



A method of identifying population trends is to limit the review to a more recent

time frame while still including the cyclical nature of economics, weather, and historical events. A narrower time frame including the aforementioned factors is presented in. This data set provides an overview of county populations within a 20-year period from 2000 to 2020, with calculations as to 10-year population changes and growth percentages.

When comparing the percentage of growth within Davison County and across differing time periods an accurate perspective may be established through division of the growth percentage by the number of years within the defined period; thereby calculating the annual growth rate.

In summarizing the data within **Table 4.1** and **Figures 4.1** and **4.2**, the following total and annual growth rates were calculated:

- **Long term growth rate (60 year):**  
1960 - 2020

- 19.24% or 3,209 persons.
- Annual growth: 0.29%

- **Medium term growth rate (20 year):**  
2000 - 2020

- 6.1% or 1,149 persons.
- Annual growth: 0.298%

- **Short term growth rate:**  
2010 - 2020

- 2.54% or 493 persons total
- Annual growth: 0.251%

Whereas the sixty year population trend within Davison County revealed an annual growth rate of 0.29%, a review of the same data for a twenty year period (2000-2020) saw a slightly lower growth rate of 0.298% annually. The trend toward a slower rate is supported by the most recent decade, which had a yearly increase of 0.251%.

Figure 4.3 provides a graphic review of population change in the townships of Davison County since 2000. Townships such as Prosper and Mitchell have grown by 30% over the last 20 years. It is evident that the rural areas around the City of Mitchell have grown significantly since 2000. These areas warrant consideration in future land use planning in the County.

The term population encompasses numerous, divisions, groups, etc. One of these divisions is race. In comparing the racial data within the control group, there are very subtle differences between counties. The data provides a picture of the racial diversity or lack thereof in certain areas of the State. The minority population within Davison County is less than the average of the comparison counties. The racial demographics of a county are dependent on multiple factors. Racial diversity within South Dakota is defined by the location of a county in relation to a reservation, major educational institution, government facility, or larger overall population base. **Table 4.2** presents the population by race for Davison County and its comparable counties.

**TABLE 4.2**  
**Specified Racial Population Data, 2020**

Entity	White	Black	American Indian	Asian	Native Hawaiian	Some Other Race	Two or more races	Hispanic or Latino
Beadle	14,567	220	757	1,027	164	1,229	374	1,956
Brookings	32,210	428	448	1,107	0	213	709	1,199
Davison	18,422	269	352	243	0	208	396	655
Hughes	14,687	10	2,044	4	0	9	806	591
Yankton	20,689	348	742	34	0	118	815	1,135
South Dakota	735,228	18,836	74,975	12,413	544	7,320	30,020	36,088

Source: US Census, 2020

#### Population by Age

While general population data is useful in addressing general issues facing the County, it is necessary to group the county's residents into smaller divisions in order to evaluate service needs. The previous tables show that Davison County is growing but additional questions remain such as how, why, and where.

An area of concern in South Dakota is the loss of youth, coupled with an increasing average age of residents. This trend is not a new issue, but one that affects some regions at a much greater rate than others. There are many reasons for these concerns

including labor force, stability, services, and dependency to name a few. **Tables 4.3** and **4.4** contain a fifty-year trend of youth and aged populations.

Data as presented in percentile form provides a method of comparison between different entities. A review of the population data presented in **Table 4.3** shows that in the year 2020 Davison County's population included 23.1% persons age 18 and younger versus 24.5% for the state. Application of the same methodology for the age 65 and older group shows Davison County with 18.0% and the state with 16.1%.

**TABLE 4.3**  
**Youth Population - Age 18 or Younger - 1970 - 2020**

Entity	1970	1980	1990	2000	2010	2020	Population Change 1970 - 2019	% Change 1970-2019
Beadle	7,252	5,251	4,901	4,199	4,614	4,945	-2,307	-31.81%
Brookings	6,247	5,591	5,753	5,860	8,809	7,271	811	12.98%
Davison	5,956	4,990	4,827	4,753	5,252	4,594	-1,541	-25.87%
Mitchell	5,208	3,645	3,595	3,502	3,447	3,420	-1,730	-33.22%
Ethan	44	113	104	99	94	92	63	143.18%
Mount Vernon	93	112	107	152	139	124	50	53.76%
Hughes	4,179	4,535	4,424	4,583	4,037	4,215	-77	-1.84%
Yankton	6,195	5,251	5,103	5,567	5,508	4,813	-1,383	-22.32%
South Dakota	241,175	205,606	198,973	202,649	226,740	215,747	-27,067	-11.22%

Source: US Census, 2020 ACS

The potential impacts of an aging population are shown through the decrease in population for persons under the age of 18 in four of the five counties within the control group for the period of 1970-2020. The recent trend in Davison County had been promising when compared to the control group and state figures. In the previous decades, 1990-2010, the youth population of Davison County increased by 8.8% versus 14.0% for the state as a whole. However, the population under 18 years of age decreased by 12.5% between 2010 and 2020 from 5,252 to 4,594. A 4.8% decrease was observed at the state level.

Ethan and Mount Vernon bucked the County and statewide trend. Ethan's youth population has doubled since 1970 while

Mount Vernon's youth population increased by almost 50 percent in the same period.



Data within Table 4.4 focuses on that

segment of the population base age 65 and older. Throughout the past 40 years, the segment of the population age 65 and older has increased in most parts of the state; almost doubling at the state level. The only area that reported a decrease in its senior population is Mount Vernon. In fact, it is an anomaly compared to the rest of the study group; where the City's senior population decreased by over 50% since 1970.

**TABLE 4.4**  
**Aged Population - Age 65 or Older - 1970 - 2020**

Area name	1970	1980	1990	2000	2010	2020	Population Change 1970 - 2020	% Change 1970-2020
Beadle	2,674	2,822	3,315	3,295	3,006	3,124	697	26.07%
Brookings	2,300	2,605	2,973	3,065	3,170	4,051	1,920	83.48%
Davison	2,520	2,764	3,050	3,042	3,301	3,578	1,189	47.18%
Mitchell	2,161	2,379	2,630	2,565	2,775	2,762	976	45.16%
Ethan	44	61	54	44	47	66	6	13.64%
Mount Vernon	93	87	70	61	59	51	-47	-50.54%
Hughes	1,045	1,384	1,763	2,252	2,285	2,960	1,943	185.93%
Yankton	2,482	2,542	2,861	3,164	3,665	4,178	1,830	73.73%
South Dakota	80,274	91,019	102,114	108,131	116,581	141,534	66,557	82.91%

Source: US Census, 2020 ACS



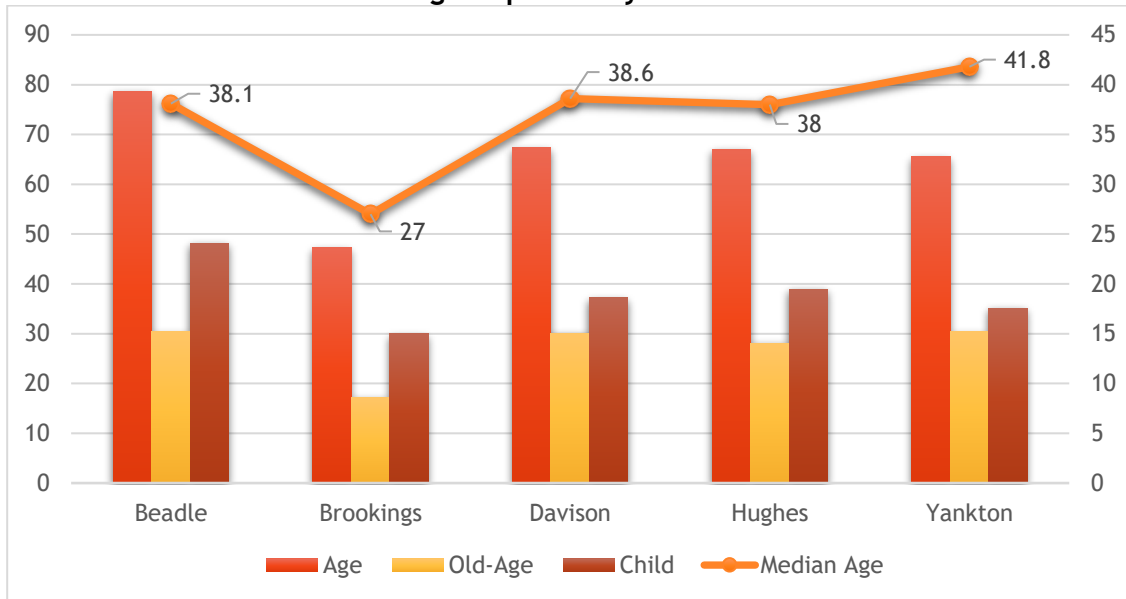
The data within Figure 4.4 provides the ratios of the youth and aged population compared to

the population between the ages of 18 and 64. Dependency ratios help illustrate where a community is leaning in terms of its age group makeup. The age ratio is calculated by adding the number of people under 18 and people over 65 in the population and dividing the total by the number of people between 18 and 64 years of age. The elderly ratio is

calculated in the same manner as the age ratio but does not include the population under 18 in the total. The inverse is true for calculating the child ratio. This helps us get a picture of what types of resources may be needed for the community as a whole in the future. If a community's elderly ratio comprises most of the total age ratio, then we can determine that there will be an increased demand for health care, skilled care, and transportation services. A higher child ratio would create a demand for more educational, family, and social services.



**Figure 4.4**  
**Age Dependency Ratios**



Source: US Census, 2020 ACS

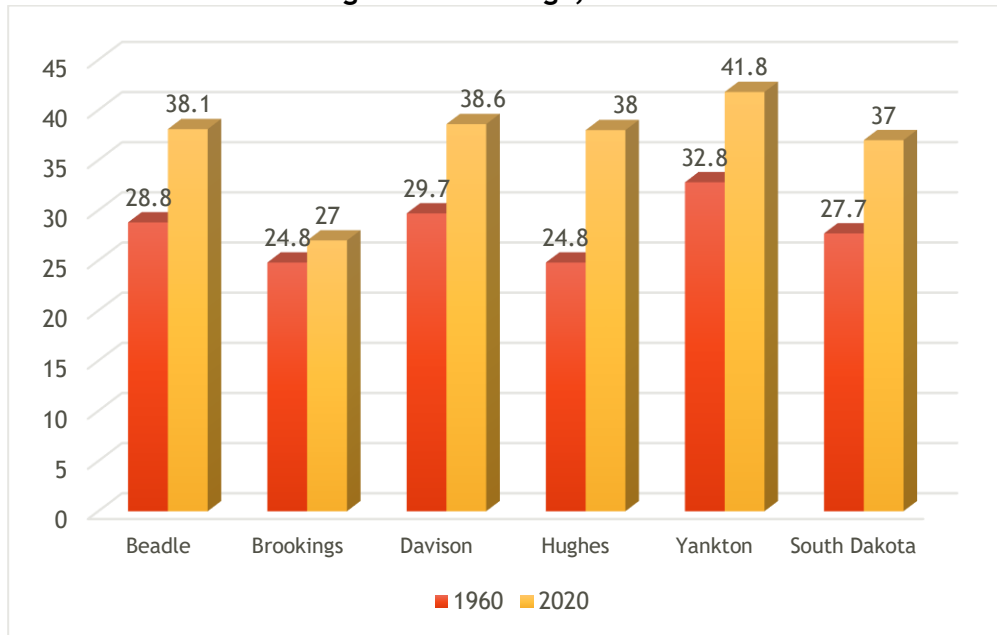
In calculating a mean age for a county, all of the ages reported would be added together and then divided by the number of ages reported. The mean value is not commonly utilized due to the ease in which the final result can be influenced by an abnormality in the reported values. Whereas, a median calculation is more prevalent in calculating items such as age and income since the final result is not as easily compromised by significant variations in the data set being analyzed.

In calculating the median age for Davison County, the total population 19,890 (2020) and their respective ages were divided in half with an equal number of people falling above and below the median age.

The other figure to examine is the increase of the County's median age as shown in **Figure 4.5**. The median age in Davison County has risen from 29.7 years in 1960 to 38.6 years in 2019, an increase of almost 9 years, in 2019. The median age in places where a segment of the population is "captive," like university-based communities, increased by a small amount. Such is the case in Brookings County (South Dakota State University ) where the median age increased by only 2.2 years in the 60 year period.

Counties where the economy is primarily based on government, such as Hughes County (State Capitol), generally increase their median age more rapidly. The median age in Hughes County increased by over 13 years between 1960 and 2020.

**Figure 4.5**  
Change in Median Age; 1960-2020

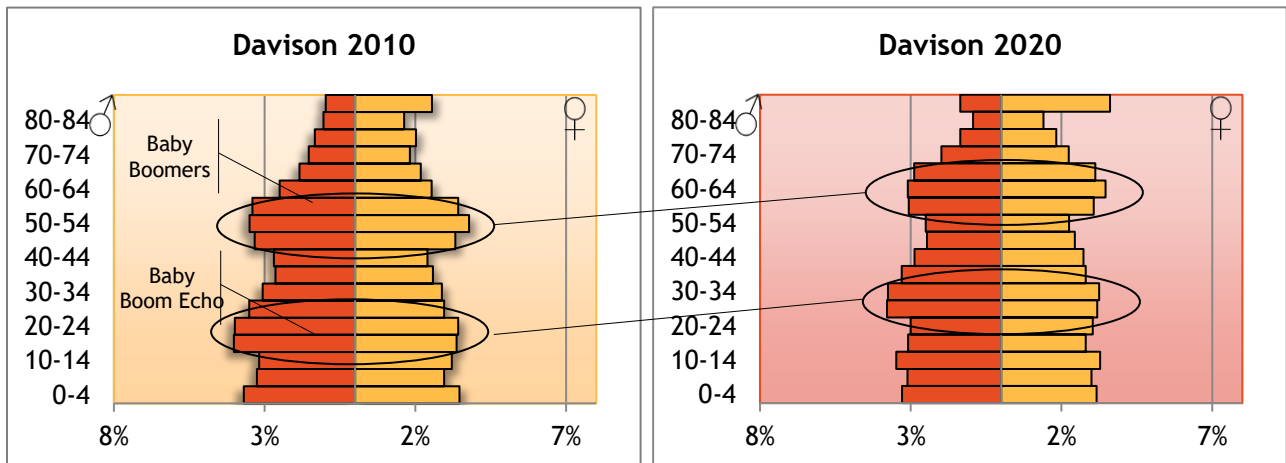


Source: US Census, 2020 ACS

One graphic utilized to present population data is a population pyramid. These pyramids offer a quick view of population dispersion through a variation of a traditional bar graph. **Figure 4.6** displays the population pyramids of Davison County for the years 2010 and 2015. Generational

“bulges” can be seen in both pyramids. In 2010, the Baby Boom generation is clearly shown between the ages of 45 and 60. In 2015, the bulge of Baby Boom population advances up the pyramid between the ages of 50 and 65.

**Figure 4.6**  
Population Pyramids



Sources: State Data Center South Dakota



The previous section identified and detailed two population bases, those age 18 and younger and persons aged 65 and older. **Table 4.5** complements this information by providing an overview of the entire Davison County population. The information is presented by five-year age cohorts for the thirty-year period of 1990-2020 in Davison County. Calculating the percent change of age cohorts can help leaders determine patterns in growth and plan for future needs such as schools, health care facilities, and skilled care.

Enhancements at Mitchell Technical College and Dakota Wesleyan University have impacted the growth in the “college age” cohort in Davison County. It would be beneficial to understand what is important to this demographic when planning future amenities. The “middle aged” population (ages 55 to 65) has nearly doubled between 1990 and 2020. It is important to know what their plans are for housing, health care, and recreation.

**TABLE 4.5**  
**Population by Age, Davison County: 1990 - 2020**

Age Cohort	1990	2000	2010	2020	% Change
Under 5 years	1,319	1,214	1,280	1,129	-14.40%
5 to 9 years	1,404	1,416	1,280	1,235	-12.04%
10 to 14 years	1,399	1,243	1,241	1,175	-16.01%
15 to 19 years	782	1,649	1,435	1,423	81.97%
20 to 24 years	425	1,500	1,474	1,372	222.82%
25 to 29 years	1,182	1,079	1,261	1,457	23.27%
30 to 34 years	1,190	972	1,086	1,305	9.66%
35 to 39 years	1,448	1,425	912	1,153	-20.37%
40 to 44 years	1,398	1,318	1,222	1,129	-19.24%
45 to 49 years	852	1,179	1,358	1,048	23.00%
50 to 54 years	849	1,165	1,455	1,207	42.17%
55 to 59 years	716	863	1,416	1,318	84.08%
60 to 64 years	699	645	776	1,342	91.99%
65 to 69 years	796	803	640	864	8.54%
70 to 74 years	1,502	603	756	931	-38.02%
75 to 79 years	614	845	698	532	-13.36%
80 to 84 years	418	350	466	615	47.13%
85 years and over	510	452	659	636	24.71%

Source: US Census, 2020 ACS

**Population Projections and Trends**

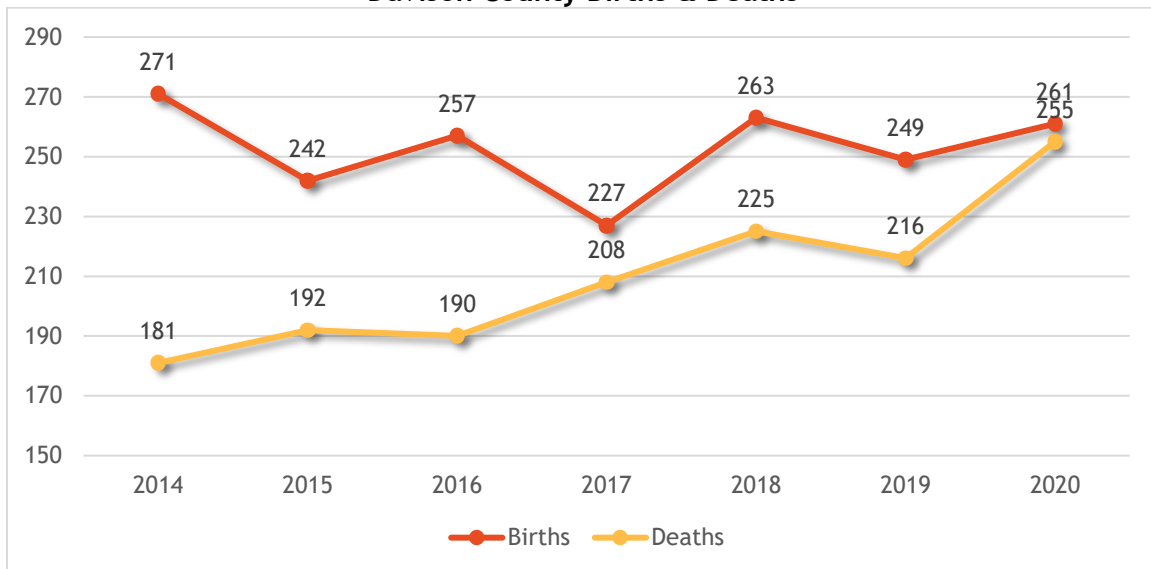
A population base is affected by many variables, one of which is natural progression. **Table 4.6 and Figure 4.7** illustrate the births and deaths over a 4-year period (2017-2020) for Davison County and the comparative counties (including an average natural change). Most of the counties have reported more births than deaths in the four year period. In Davison County, there were 249 births and 210 deaths on average between 1990 and 2019. However, the “gap” between births and deaths seems to have narrowed in the last couple of years.

**TABLE 4.6**  
**Vital Statistics by Entity - 2017-2020**

	2017		2018		2019		2020	
	Births	Deaths	Births	Deaths	Births	Deaths	Births	Deaths
<b>Beadle</b>	273	197	284	201	284	207	280	218
<b>Brookings</b>	451	193	435	208	410	208	346	253
<b>Davison</b>	227	208	263	225	249	216	261	255
<b>Hughes</b>	221	173	246	173	218	183	207	205
<b>Yankton</b>	269	260	253	265	247	289	268	265

Sources: County Health Rankings, SD Kids Count Data Center

**Figure 4.7**  
**Davison County Births & Deaths**



Sources: County Health Rankings, SD Kids Count Data Center

**Migration Patterns**

Table 4.7 and Figure 4.8 present the concept of migration. Natural migration is based solely on the birth and death rates of an area. Actual migration considers natural migration in addition to the movement of persons within the state between other states.

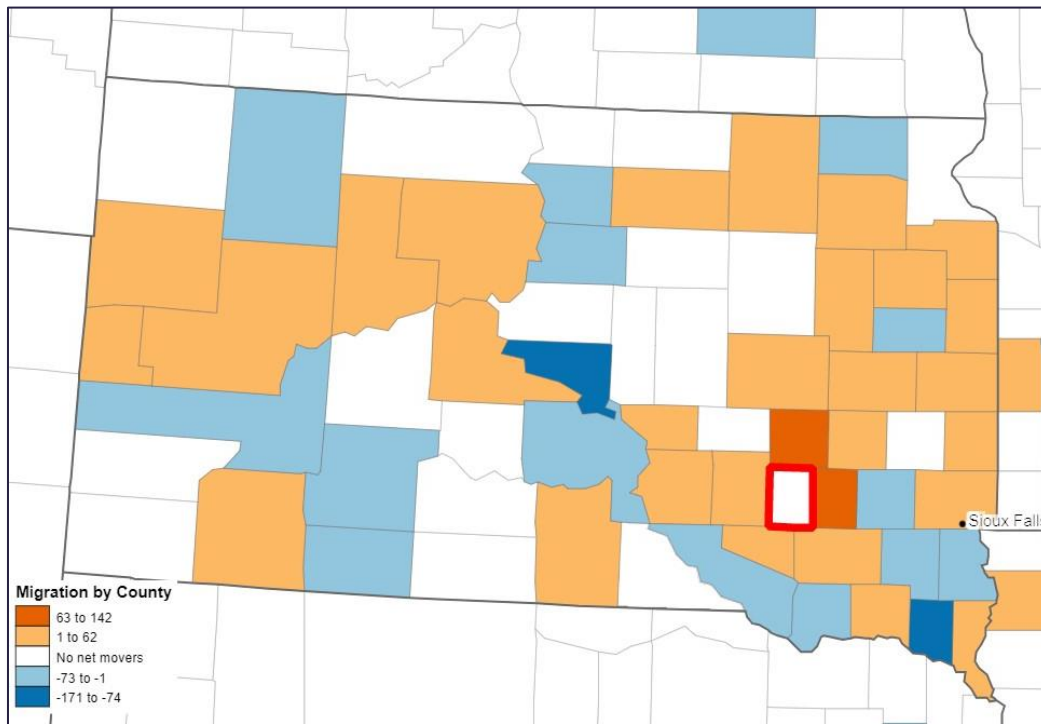
**TABLE 4.7 Migration Flows (2014-2018)**

Population (1 yr and over):	19,656
Movers <u>from</u> a different state:	+ 426
Movers <u>to</u> a different state:	- 380
Movers <u>from</u> a different county, same state:	+ 1,294
Movers <u>to</u> a different county, same state:	- 983
Movers from abroad:	+ 40

Source: Census Flows Mapper

Counties shaded in orange represent a net move TO Davison County, while blue-shaded counties show a net move OUT of the County. Between 2014 and 2018, Davison County gained the most people from Hanson and Sanborn Counties and lost the most people to Clay and Hughes Counties in the time period.

**Figure 4.8; Net Migration, Davison County, 2014-2018**



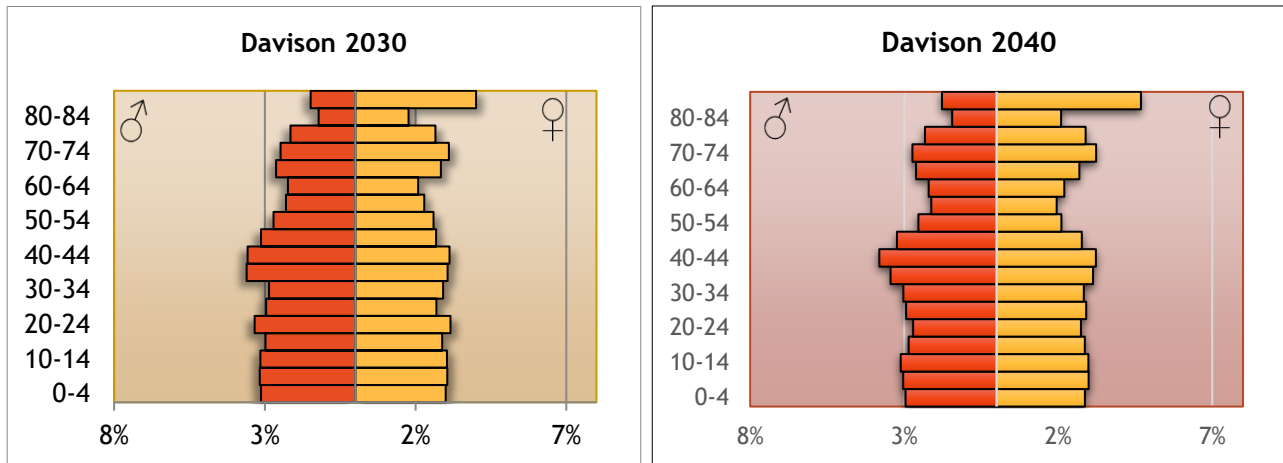
Source: Census Flows Mapper

**Population Projections and Trends**

The data in **Figures 4.9 and 4.10** estimate the County’s population trends for a twenty year period, 2020-2040. During this time the population base within the County is expected to shift in the following areas:

- ✓ General population is projected to increase by 9.3%;
- ✓ “Kids” aged 0-10 years is projected to decrease by over 22%
- ✓ “College” aged 19-24 years is projected to increase by nearly 60%
- ✓ The “Elderly” population over the age of 80 is expected to nearly double.

**Figure 4.9**



**FIGURE 4.10, Population Projections for Davison County Age Groups**

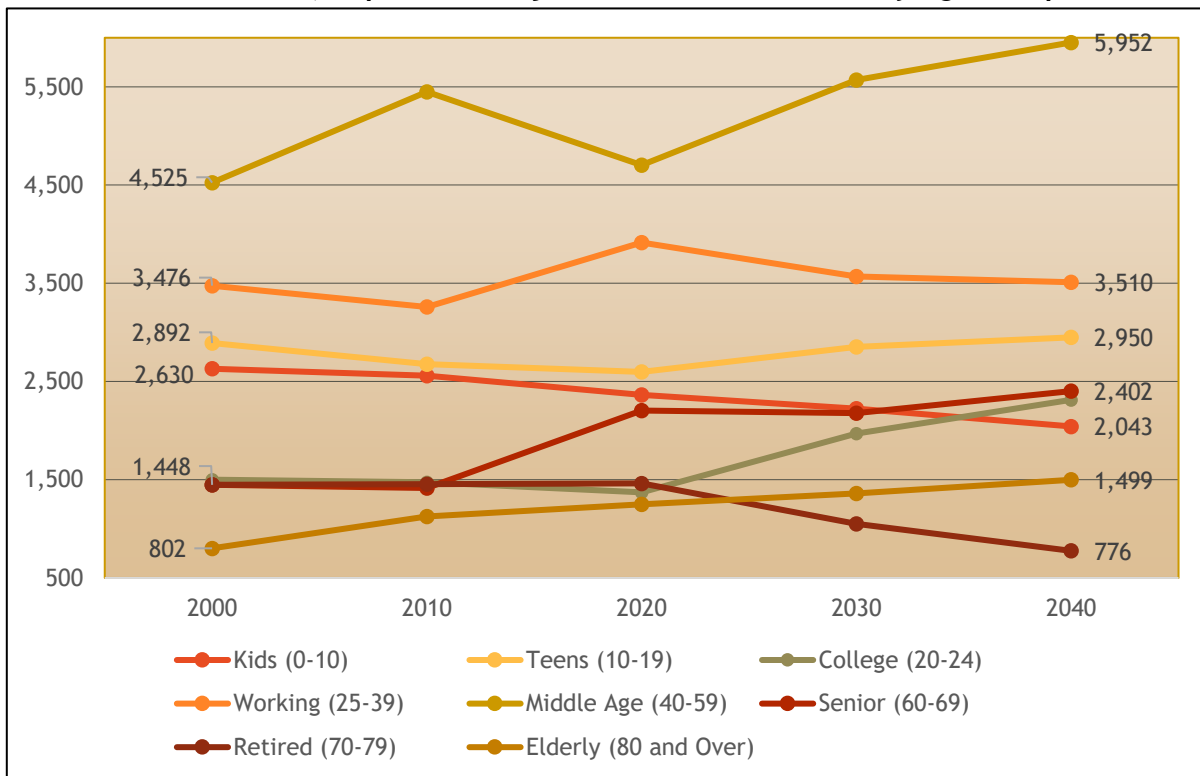


Table 4.8 and Figure 4.11 presents several scenarios for future growth in Davison County. The model used to predict future growth is based on past trends and current conditions but is not perfect. The most realistic scenario for population changes in Davison County is to project an annual population gain of about 0.30%, which is the observed annual change in the County since 1960.

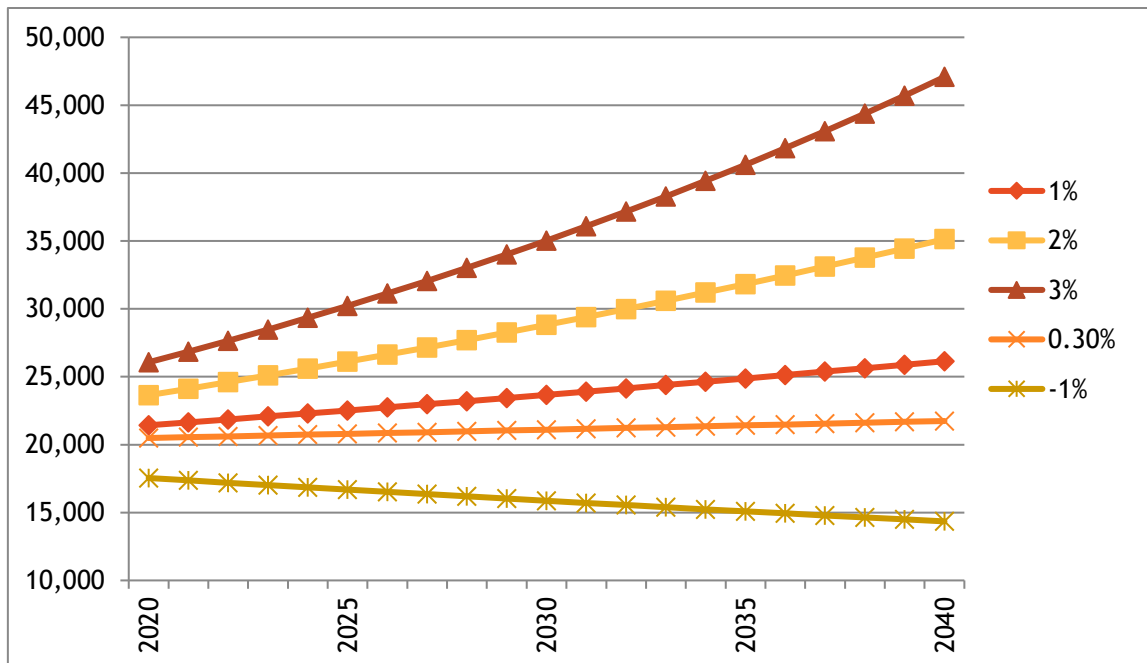
Even though rapid population loss does not appear to be the future picture for Davison County, several scenarios are included in the table which factor a negative rate of growth. However, for the planning period (2021 - 2040), an annual rate of 0.30% can be used. This rate shows that the County would grow from 19,890 residents in 2020 to 21,740 residents by 2040. For land use planning purposes, annual growth rates of 1 and 2 percent are examined for their impact on land use needs and demand for community services. Using the 1% rate, the County is expected to grow to 26,144 residents in 2040. The County will grow significantly larger if the 2% annual growth rate is assumed (35,135 residents by 2040).

**TABLE 4.8, Population Projections for Davison County Based on Annual Growth Rates**

Year	Annual Growth Rate						
	1%	2%	3%	0.30%	-1%	-2%	-3%
2020	21,426	23,645	26,068	20,488	17,542	14,451	14,304
2025	22,519	26,106	30,220	20,794	16,683	12,410	12,283
2030	23,668	28,823	35,033	21,105	15,865	10,657	10,548
2035	24,875	31,823	40,613	21,420	15,087	9,151	9,058
2040	26,144	35,135	47,082	21,740	14,348	7,859	7,778

Source: Planning & Development District III

**Figure 4.11, Davison County Population Projections, 2020-2040**



Population growth or loss can be explained by three factors. Comparing births and deaths, migration patterns, and annexation can influence whether a place is gaining or losing population. If there are more births than deaths in the community, the population will grow. A city with a high population of younger adults in their childbearing years will tend to continue to gain population. Also, if more people move into the County than move out, the population will increase. A community that is aggressive and building a number of new homes may experience significant in-migration. The new residents may be new to the region, or they may be rural families who are leaving the farm and moving to town. Lastly, if there are a number of housing developments outside the city limits that are annexed in, the population of towns will grow.



## PLANNING CONSIDERATIONS

### County Planning Challenges or Opportunities

The following social issues are expected to arise over the next 10 years.

- ✓ Continued population growth, especially among higher service “dependent” groups including indigent and low income persons;
- ✓ Continued population growth adjoining or abutting the City of Mitchell;
- ✓ Providing supportive services and infrastructure to rapidly growing small communities; and
- ✓ Continued increases in the region’s ethnically diverse population base.

### Assumptions

- 1) Population trends in smaller towns may be altered by one positive or negative event, such as a business expansion or closing.
- 2) The proximity of several small towns to Mitchell raises their odds of population growth, as bedroom communities.
- 3) Area workforce demands will influence the growth of minority populations.
- 4) Distance, cost, and expertise specialties are significant variables in personal decisions associated with social and medical services.

### Policy Options

Davison County’s responses to the issues could consider the following.

- 1) Encourage development proposals that build upon or complement education, health care, or social services;
- 2) Explore new partnerships and regional cooperation in supporting social services such as the 211 resource;
- 3) Consider accessibility and workforce factors in evaluating development proposals; and
- 4) Recognize the importance of recreation amenities in retaining and attracting young professionals and other employees.