### South Dakota Population Trends With a Focus on the Component Changes

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### Outline

- Current Population and Demographics
- Context
- Unequal Growth
- Components of Population Change
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- Projections

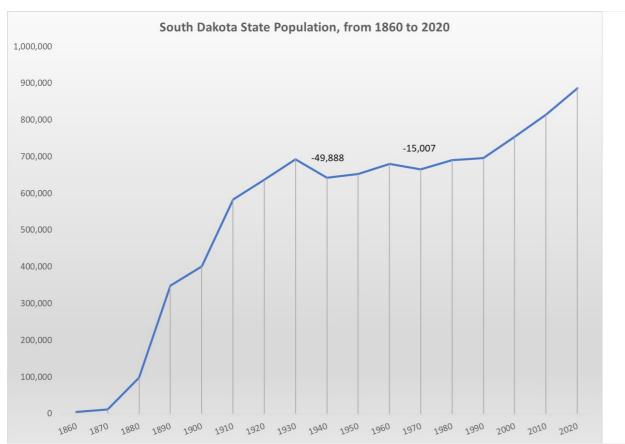
### Current Population and Demographics\*

- State population: 909,824 (1.6 percent increase from 895,396 estimated for 2021)
- Age and sex structure: 49.2 percent female, 24.1 percent under 18 years old, and 18.2 percent aged 65 and over
- Racial and ethnic composition: 6.3 percent two or more races, 4.7 percent Hispanics/Latinos, 79.9 percent non-Hispanic whites, 7.1 percent non-Hispanic AlANs\*\*, 2 percent non-Hispanic blacks, and 1.4 percent non-Hispanic Asians
- 57.2 percent of the state population resided in urban places, defined by the Census Bureau's 2020 definition.

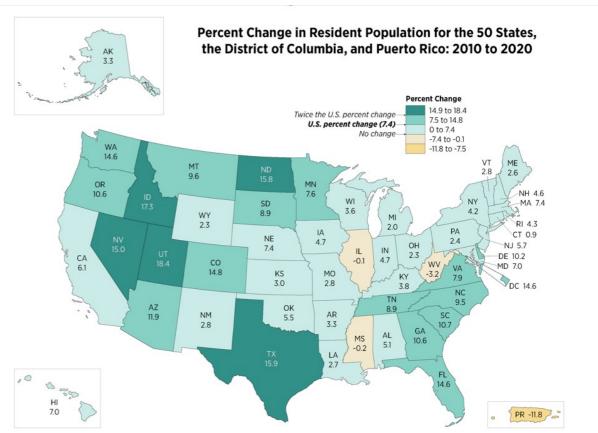
<sup>\*</sup>Data are pulled from the 2022 American Community Survey 1-year estimates published by the U.S. Census Bureau in September 2023.

<sup>\*\*</sup> AIAN: American Indian and Alaska Native

### Context

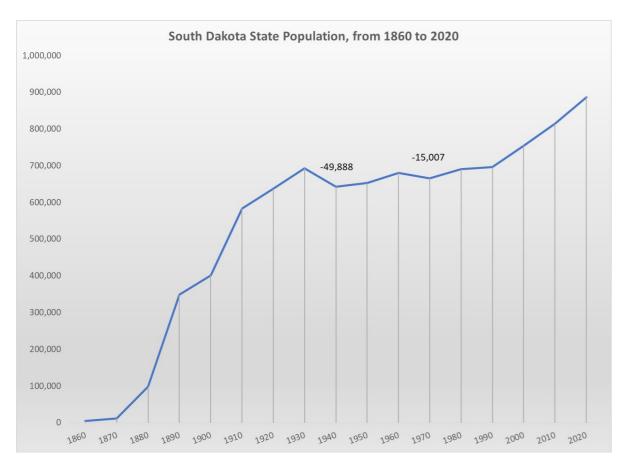


Data source: the U.S. Census Bureau, the Decennial Censuses. Data shown for 1860 to 1880 are for the Dakota Territory and include North Dakota.



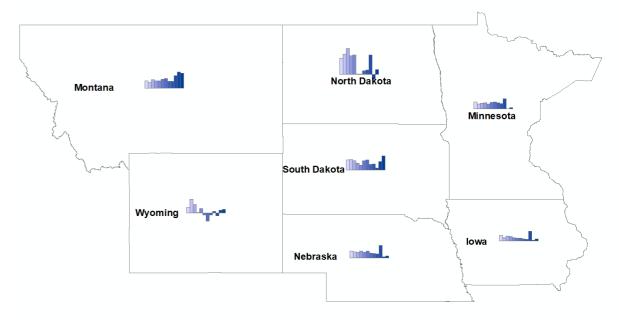
Data source: the U.S. Census Bureau, the Decennial Censuses, the Population Estimate Program, The American Community Survey 1-year estimates.

### Context



Data source: the U.S. Census Bureau, the Decennial Censuses. Data shown for 1860 to 1880 are for the Dakota Territory and include North Dakota.

#### Annual Percent Change, 2011-2022, South Dakota and Neighboring States



Data source: the U.S. Census Bureau, the Decennial Censuses, the Population Estimate Program, The American Community Survey 1-year estimates.

## Unequal Growth: Rapid City and Sioux Falls Compared

The Metro population in Sioux Fall and Rapid combined was estimated as 434,185 in 2022, approximately 47.7 percent of the state population.

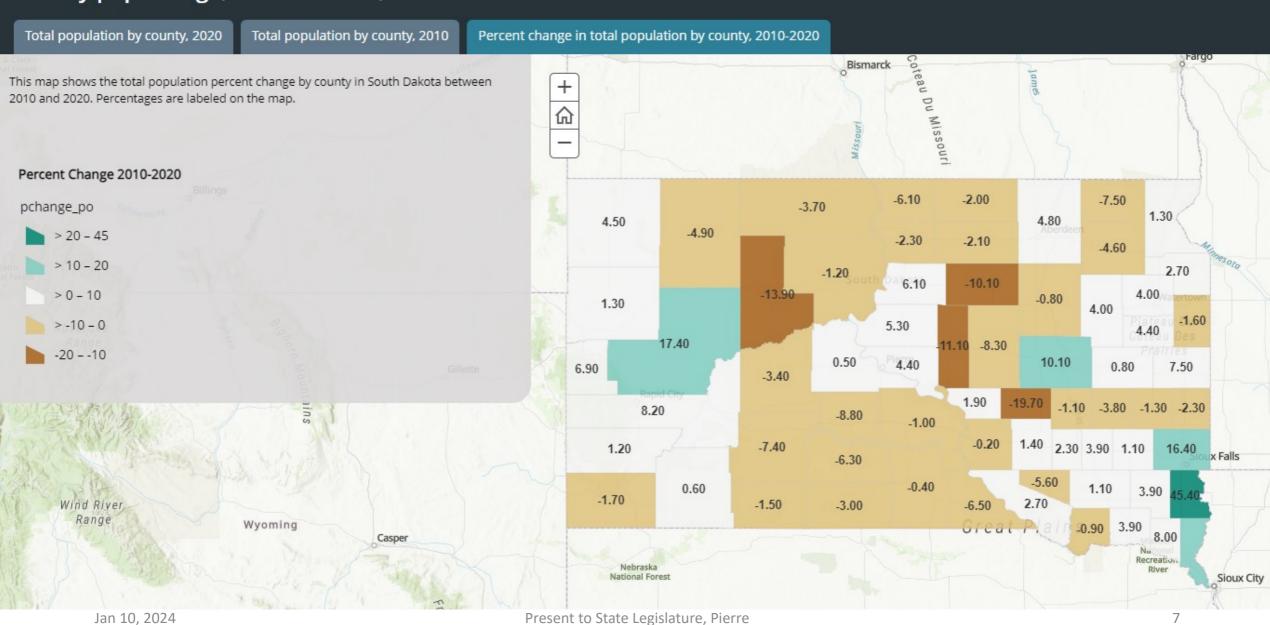
The population size of the Sioux Falls Metro was almost two-fold of the population in the Rapid City Metro, resulting from a larger initial number and a much faster growth rate in the past 10 years (24.5 percent increase in Sioux Falls vs. 12.9 in Rapid City).

Sioux Falls Metro population was estimated with more children under 18 years old (25.6% vs. 22.4%) while the elderly population aged 65 and over was smaller, compared to Rapid City (14.6% vs. 18.9%). The share of 75 years and over was larger in Rapid City than in Sioux Falls.

	Rapid City	Sioux Falls
Population	144,890	289,295
Percent increase in population in the past 10 years	12.9	24.5
Male	51.4	50.9
Female	48.6	49.1
Under 18 years	22.4	25.6
15 to 44 years	38.0	40.6
18 years and over	77.6	74.4
65 years and over	18.9	14.6
75 years and over	7.1	5.2
Median age	40.7	36.7
Old-age dependency ratio	32.2	24.5
Child dependency ratio	38.1	42.8

Data Source: The U.S. Census Bureau. 2012 and 2022 American Community Survey 1-Year Estimates.

#### County pop change, South Dakota, 2010-2020



## Components of Population Change: Demographer's Perspective

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Population change =

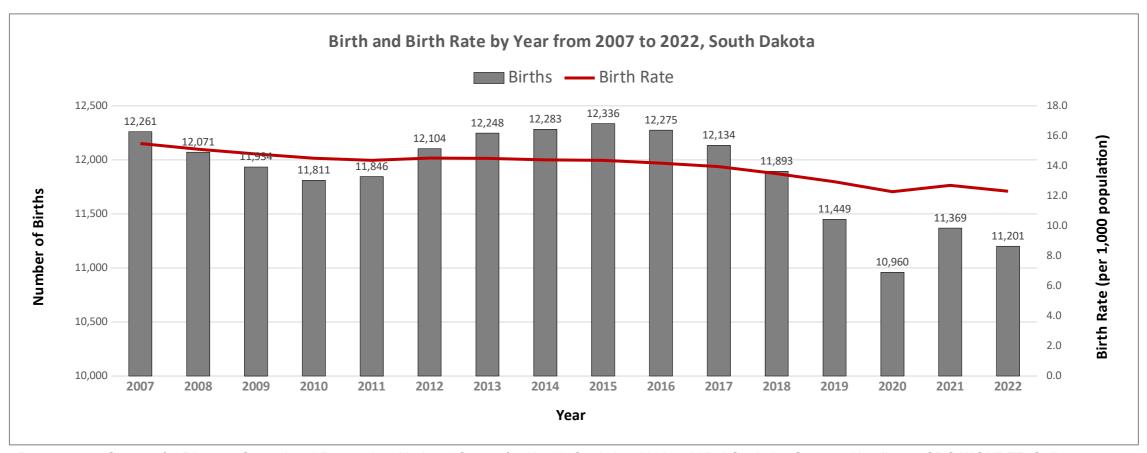
Births
- Deaths
- Deaths
+ In-migrants
- Out-migrants
International

Births
Natural Increase
Net Migration

International

Domestic
```

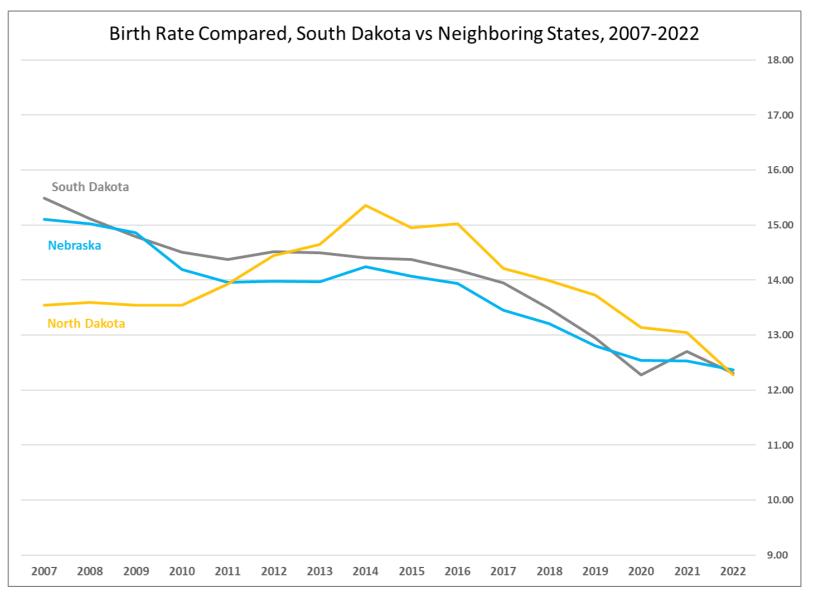
### **Births**



Birth rates\* in Nebraska are similar – level and trend;

North Dakota had lower birth rates before 2010s and there was a substantial increase in the early 2010s followed by a rapid decline to the same level as the birth rates in South Dakota and Nebraska (slightly higher than 12 per 1,000 people).

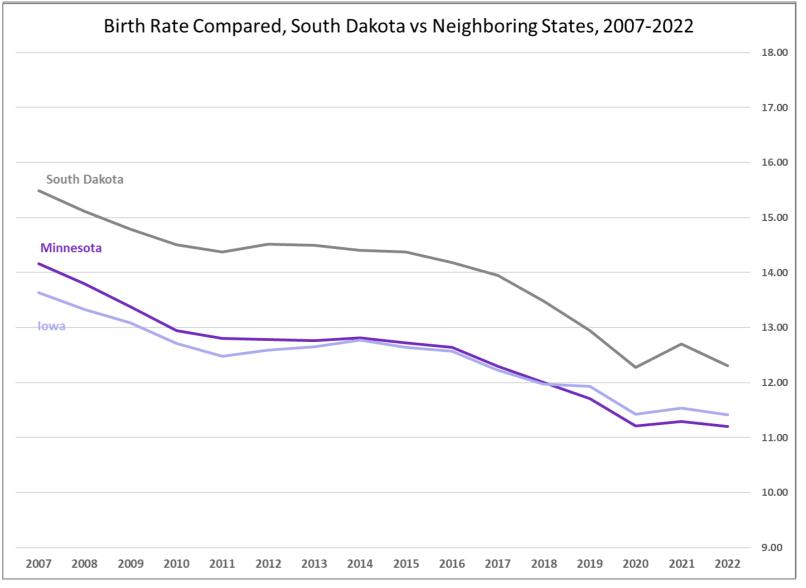
\*Birth rate: number of live births Per 1,000 people



Birth rate\* in Minnesota and lowa are lower than that in South Dakota and both states are experiencing approximately same rate of decline in birth rate.

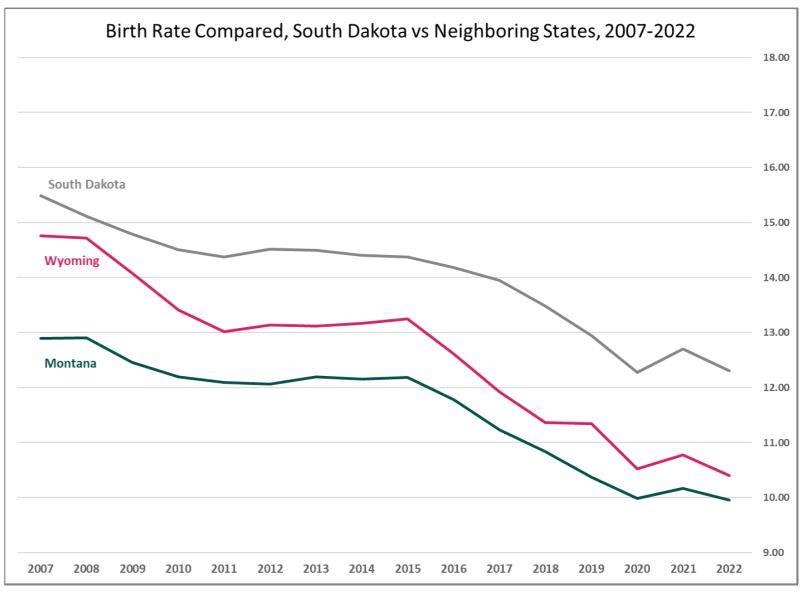
Due to their large size of state populations, Minnesota and lowa have a much large number of births than the number of births in South Dakota (Births in 2022: 36,506 in lowa, 64,015 in Minnesota, and 11,201 in South Dakota).

\*Birth rate: number of live births Per 1,000 people



Birth rate\* in the two neighboring states to the West (Montana and Wyoming) followed a decline trend. Both states have reached a relatively low birth rate in the region (about 10 per 1,000 people).



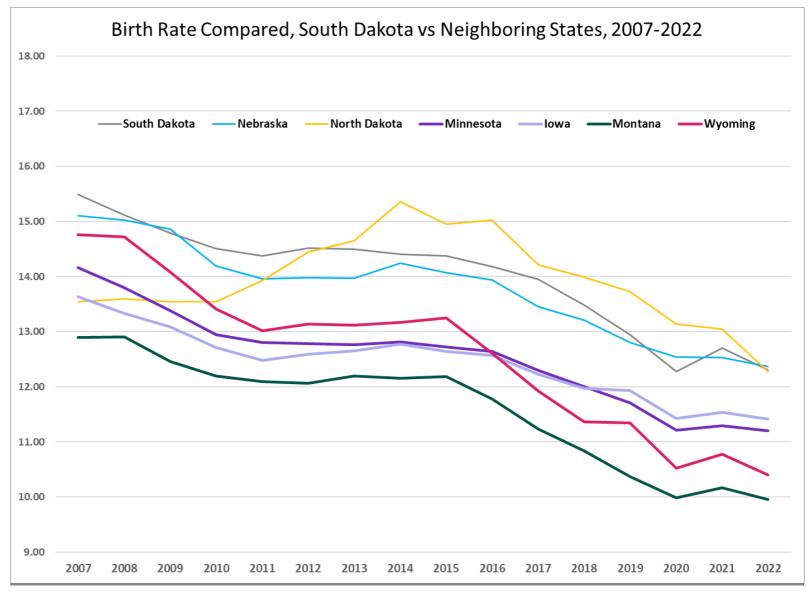


Birth rates\* in Nebraska are similar – level and trend; North Dakota had lower birth rates before 2010s and there was a substantial increase in the early 2010s followed by a rapid decline to the same level as the birth rates in South Dakota and Nebraska (slightly higher than 12 per 1,000 people).

Birth rate in Minnesota and Iowa are lower than that in South Dakota and both states are experiencing approximately same rate of decline in birth rate. Due to their large size of state populations, Minnesota and Iowa have a much large number of births than the number of births in South Dakota (Births in 2022: 36,506 in Iowa, 64,015 in Minnesota, and 11,201 in South Dakota).

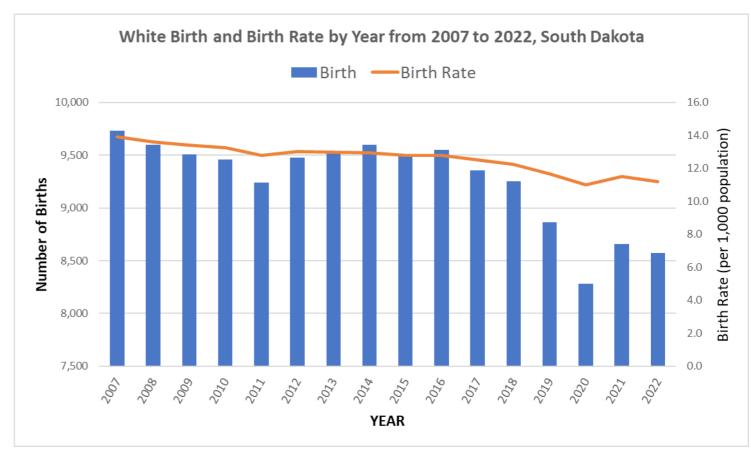
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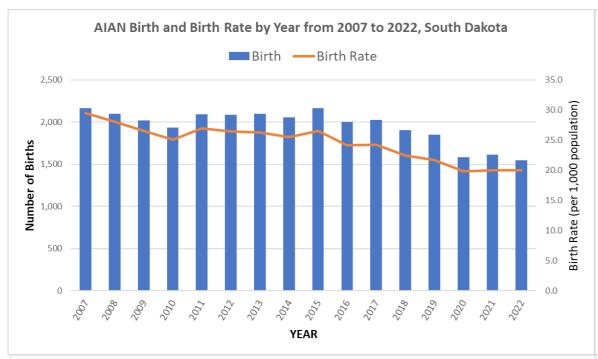
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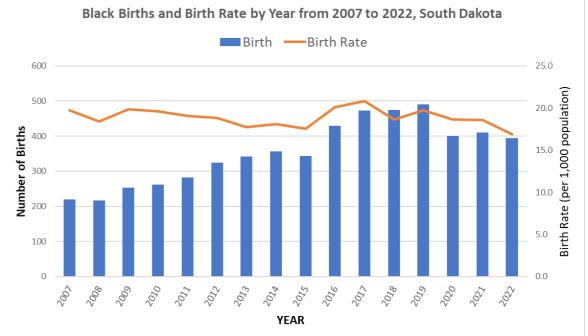


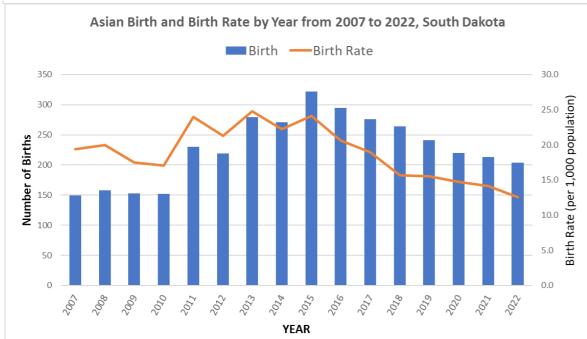
### Fertility Disparities by Race and Ethnicity: Who has more babies?

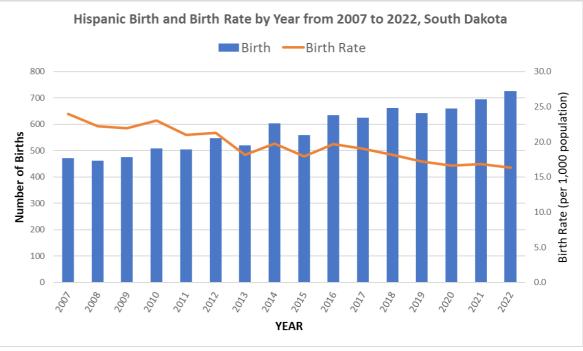
- A majority of the new-born are white; the birth rate of white had declined from 14 to approximately 11 per 1,000 people; and the number of live births in 2022 was almost 1,200 fewer than it was in 2007 (8,573 in 2022 vs 9,730 in 2007).
- Despite the general declining trend, birth rate in South Dakota varies by racial and ethnic group.



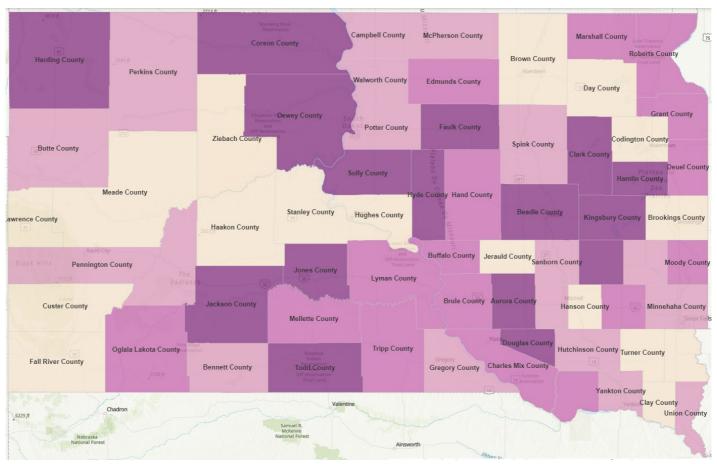








#### Fertility Disparities by County, South Dakota



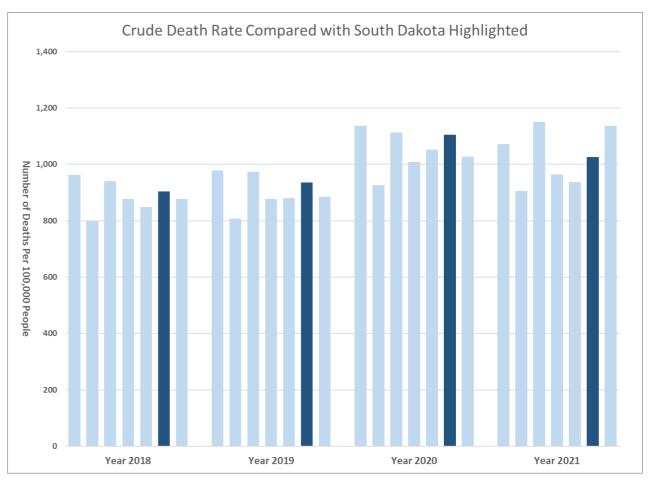
URL link to the interactive map: https://sdstate.maps.arcgis.com/apps/webappviewer/index.html?id=5b5bdd8f085b44f8a46d338c5675539f

### Deaths

South Dakota and the neighboring states had all experienced a substantial increase in mortality\* between 2019 and 2020, resulting from the COVID-19. Crude death rates had dropped in 2021 but not back to the pre-2020 level yet (less than 1000 deaths per 100,000 people).

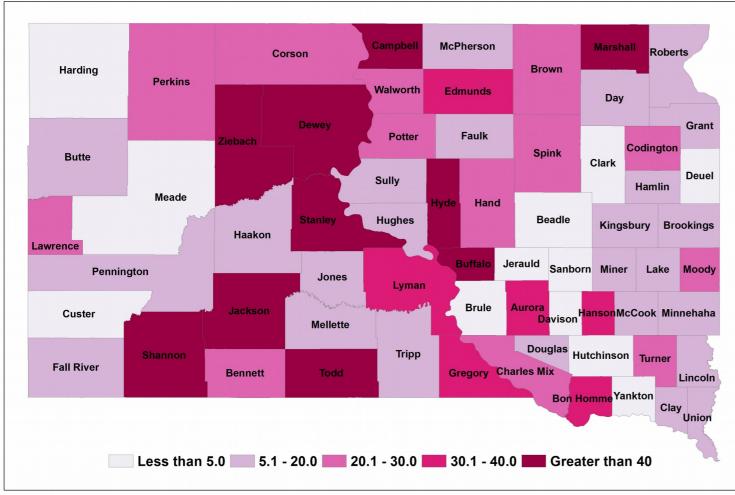
Compared to the neighboring states (except North Dakota), South Dakota had a larger increase (18.2% increase). The 2020 crude death rate in North Dakota was 19.6% higher than it was in 2019.

Notes: \* Mortality is measured as crude death rate, which is calculated by the number of deaths divided by the mid-year population multiplying 100,000.



Data source: Centers for Disease Control and Prevention, National Center for Health Statistics. National Vital Statistics System, Mortality 2018-2021.

### Geographic Disparities in Mortality



Data source: Centers for Disease Control and Prevention, National Center for Health Statistics. National Vital Statistics System, Mortality 2018-2021.

The map to the left shows the percent change in the crude death rate between the pulled 2018-2019 deaths and the pulled 2020-2021 deaths by county in South Dakota.

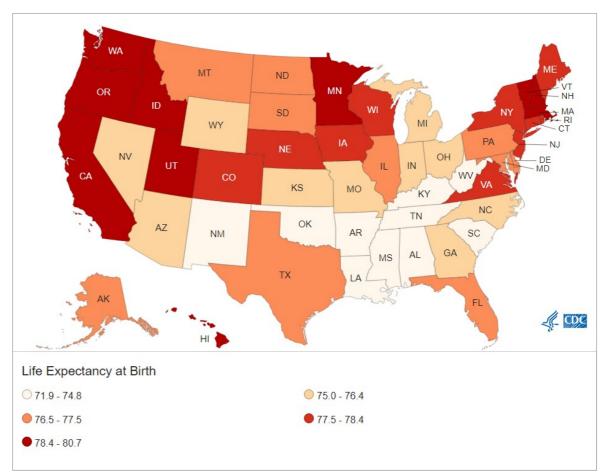
Counties shaded in darker colors experienced a greater increase in the crude death rate, with the darkest category denoting an increase of more than 40 percent.

## Life Expectancy\*: South Dakota Compared to Other States

The map to the right shows the life expectancy by state in the U.S., 2020.

From 2019 to 2020, life expectancy declined for all 50 states and D.C., from 0.2 years for Hawaii to 3.0 years for New York.\*\*

In 2020, life expectancy was 76.7 years in South Dakota, dropped from 78.4 in 2019 and 78.9 in 2018.



Source: National Center for Health Statistics, National Vital Statistics System, 2018-2020 data. https://www.cdc.gov/nchs/pressroom/sosmap/life\_expectancy/life\_expectancy/life\_expectancy.htm

<sup>\*:</sup> The average number of years of life remaining to a person at a particular age and based on a given set of age-specific death rates—generally, the mortality conditions existing in the period mentioned.

<sup>\*\*</sup>Reference: Arias E, Xu JQ, Tejada-Vera B, Murphy SL, Bastian B. U.S. state life tables, 2020. National Vital Statistics Reports; vol 71 no 2. Hyattsville, MD: National Center for Health Statistics. 2022. DOI: https://dx.doi.org/10.15620/cdc:118271.

# COVID-19 Unequal Impact on Life Expectancy

Figure 2. Life expectancy at birth, by Hispanic origin and race: United States, 2019 and 2020

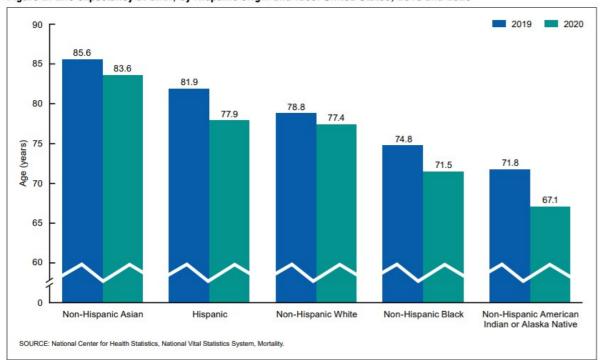
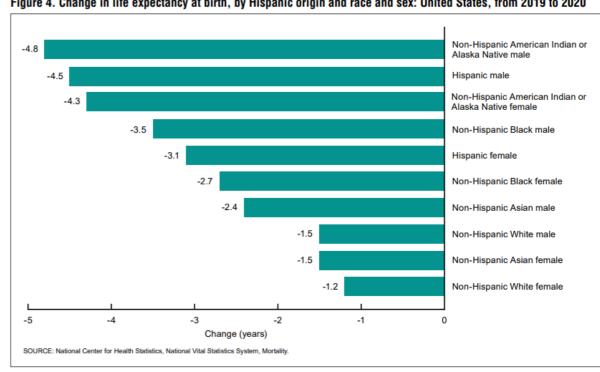


Figure 4. Change in life expectancy at birth, by Hispanic origin and race and sex: United States, from 2019 to 2020



Source: "United States Life Tables, 2020" (https://www.cdc.gov/nchs/data/nvsr/nvsr71/nvsr71-01.pdf)

### Migration: In-Migrants (In-Movers) from Other States

- In the past 10 years, approximately 3%-3.5% of the state population were moved from other states to South Dakota annually.
- In 2022, the estimate for the state-to-state movers to South Dakota was 27,729.
- This estimate and the estimated number of in-movers from other states to South Dakota in 2021 were higher than that in 2019, 2018, and 2017 (the differences in the state-to-state movers to South Dakota between the years post-2020 and the years pre-2020 were between 600-800 people).
- The top-ranking states where people had moved from were:
  - 1. Minnesota (17.6% of all state-to-state migrants to South Dakota),
  - 2. Iowa (11.3%),
  - 3. Nebraska (9.3%),
  - 4. California (7.3%),
  - North Dakota (4.6%).

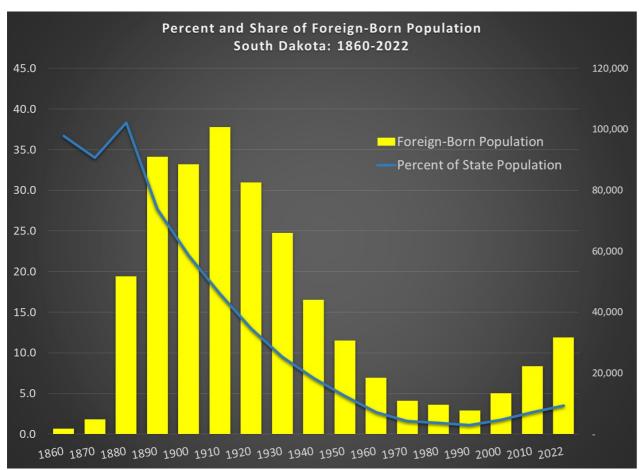
#### Selected Characteristics of In-Movers from Other States

- The in-movers from other states in the past 12 months of 2022 had slightly more males than females.
- The in-movers from other states were on average younger than the rest of the state population (median age: 27 vs. 38).
- There were a relatively large share of people with bachelor's degree or higher among in-movers from other states in comparison to the state population.

		In-movers
	State	from other
	population	states
Sex		
Male	50.8	53.9
Female	49.2	46.1
Median Age	38.0	27.0
Educational Attainment (%)		
Less than high school graduate	6.7	9.1
High school graduate	24.2	17.8
Some college/associate's degree	36.7	30.8
Bachelor's degree	22.3	31.4
Graduate/professional degree	10.2	10.9

Data Source: The U.S. Census Bureau. 2022 American Community Survey 1-Year Estimates IPUMS sample. State-to-State Migration Flows: 2022.

# International Migration (Immigration): Foreign-Born Population



Data source: the U.S. Census Bureau, the Decennial Censuses, the Population Estimate Program, The American Community Survey 1-year estimates. Data shown for 1860 to 1880 are for the Dakota Territory and include North Dakota.

- The map on the left shows the size and share of foreign-born population residing in South Dakota by decade, 1860-2022.
- The foreign-born population as the share of the state population was historically in a declining trend till 1990 followed by a gradual increase in the past three decades.
- It was estimated that 31,657 foreignborn people lived in South Dakota in 2022, approximately 3.5 percent of the state population.

## Foreign-Born Population in South Dakota: Characteristic Changes

	Nat	tive	Foreign born		
	2022	2012	2022	2012	
Sex					
Male	50.8	50.1	50.2	52.8	
Female	49.2	49.9	49.8	47.2	
Age					
Under 5 years	6.7	7.3	1.2	1.4	
5 to 17 years	18.1	17.8	9.8	10.9	
18 to 24 years	9.4	10.0	12.1	13.4	
25 to 44 years	24.3	23.9	46.2	41.0	
45 to 54 years	10.5	14.2	15.0	16.0	
55 to 64 years	13.2	12.2	8.9	9.9	
65 to 74 years	10.6	7.2	3.9	3.6	
75 to 84 years	4.8	5.0	2.2	3.0	
85 years and over	2.3	2.4	0.8	0.9	
Median age (years)	37.7	37.1	35.0	35.9	

The foreign-born population in South Dakota was younger in 2022 than ten years ago with about 1 year drop in the median age.

Data Source: The U.S. Census Bureau. 2012 and 2022 American Community Survey 1-Year Estimates.

#### Foreign-Born Population in South Dakota: Characteristic Changes

	Nat	tive	Foreign born		
	2022	2012	2022	2012	
<b>Educational Attainment</b>					
Less than high school graduate	6.5	9.2	25.4	32.5	
High school graduate	30	32.2	26.6	22.9	
Some college/associate's degree	33.1	32.6	17.3	17.4	
Bachelor's degree	21	18.5	19.6	12.3	
Graduate/professional degree	9.4	7.6	11.1	14.9	
Median Earnings					
Male	\$56,792	\$40,617	\$49,729	\$31,908	
Female	\$45,085	\$31,343	\$37,511	\$27,838	

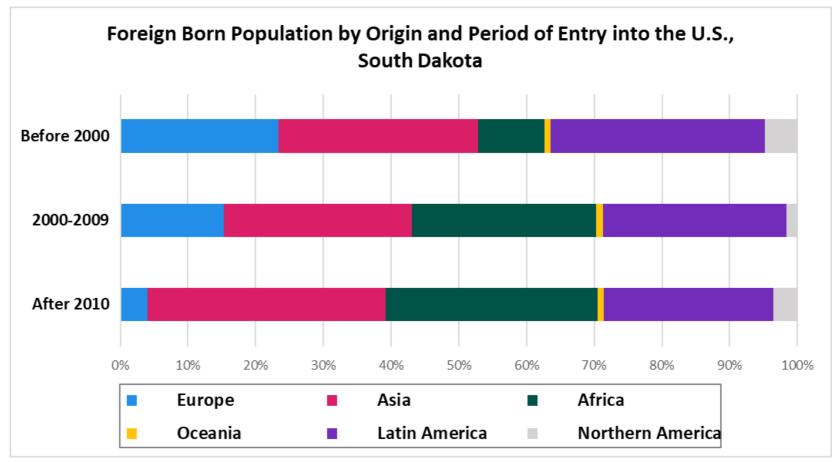
The foreign-born population in South Dakota was younger in 2022 than ten years ago with about 1 year drop in the median age.

Compared to the counterparts residing in South Dakota ten years ago, there were more with bachelor's degree or lower, but less with graduate or professional degrees.

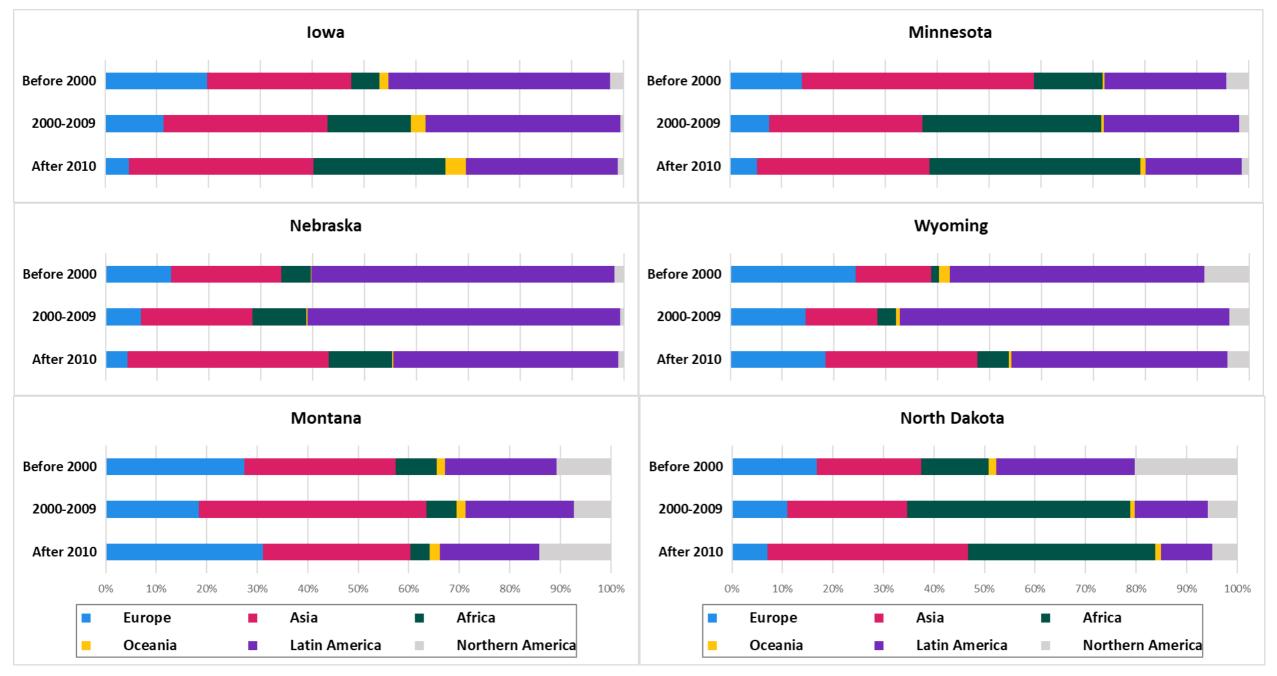
The foreign-born population had lower median earnings; the native/foreign-born median earning ratio drop from 1.27 to 1.14 for males but increased from 1.13 to 1.20 for females.

Data Source: The U.S. Census Bureau. 2012 and 2022 American Community Survey 1-Year Estimates.

## Foreign Born Population in South Dakota: Changes in the Sending Regions



Data Source: The U.S. Census Bureau. 2022 American Community Survey 1-Year Estimates.

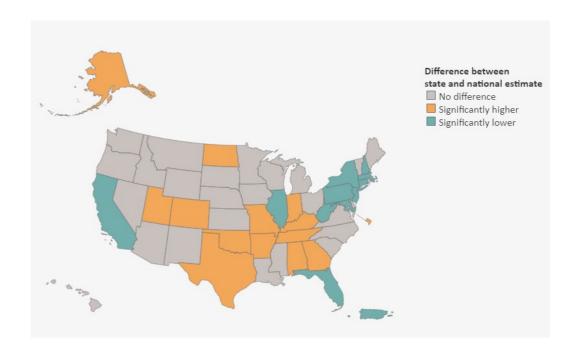


### Marriage

The U.S. national marriage rate in 2021 was 14.9a while it was 16.3 in 2011. South Dakota had a rate of 15.4 in 2021 and 15.3 in 2011.b

Racial/ethnic Disparities: Whites often have a large share of being married compared to nonwhites. In South Dakota, around 55% of whites were married in 2022 while only 20.8% of AIAN and 34.8% Hispanics were married.

Phenomenon of delayed marriage: Median age at first marriage in South Dakota: 28.4 for male, 26.8 for female in 2022, which was 1.1 years older than 25.7 in 2012.



Notes: a Marriage rate is defined as 14.9 out of every 1,000 women aged 15 and above got married in the past 12months based on American Community Survey, 1-year estimates. b No statistical difference at the 90 percent confidence level.

Source: https://www.census.gov/library/visualizations/interactive/marriage-divorce-rates-by-state-2011-2021.html

### National Trend in Household Composition: The Shift from Family to Nonfamily Households

HOUSEHOLD TYPE	1960	1980	2000	2010	2020
Family Households	85	74	68	66	65
Married Couples w/ children	44	31	24	20	19
Married Couples w/out children	31	30	28	28	30
Single Parents w/ children	4	7	9	10	9
Other Family	6	6	7	8	9
Nonfamily Households	15	26	32	34	35
One Person	13	23	26	27	28
Other Nonfamily	2	4	6	7	7

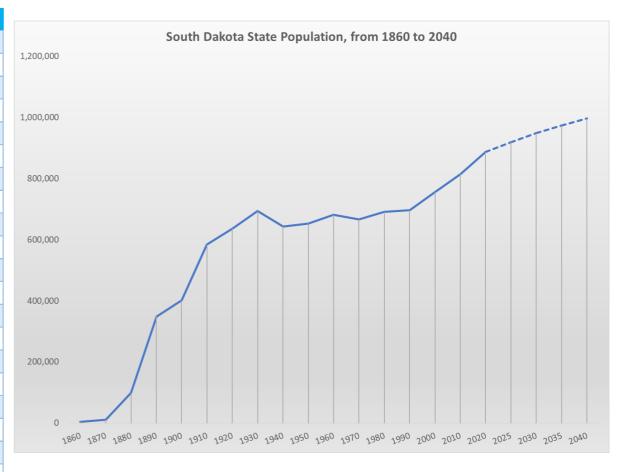
Source: Mark Mather et al., "America's Changing Population: What to Expect in the 2020 Census," Population Bulletin 74, no. 1 (2019).

### Population Projections

- Projections were created based on the cohort-component method.
- Observed data include the 2010 decennial census population by age and sex, the 2015 state population estimates by age and sex, the 2020 decennial census count by age and sex.
- Survival rates were derived from the 2020 South Dakota complete life table.
- Fertility rates were derived from 2010-2020 South Dakota birth data by female 5-age group.
- Migration rates were calculated using the residual method between the expected and observed 2015 and 2020 population by age and sex.
- The calculations were completed for the total population by age and sex, with no separate calculations by race and ethnicity.

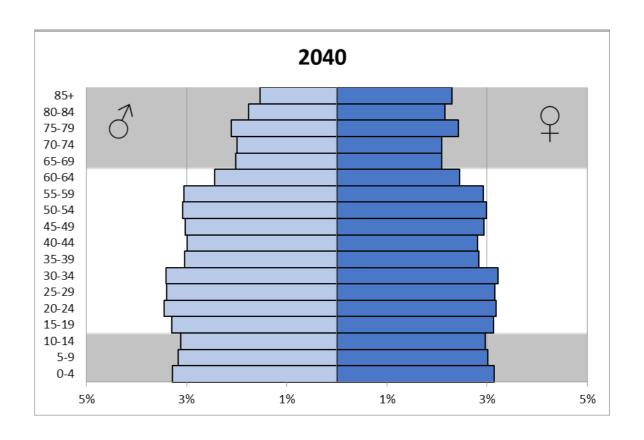
### State Population Projections

Total Population Projections, South Dakota							
	2010	2015	2020	2025	2030	2035	2040
0-4	59,621	60,074	57,742	58,101	58,543	60,660	63,943
5-9	55,531	60,123	61,449	58,646	59,011	59,460	61,609
10-14	53,960	55,080	62,883	62,610	59,754	60,125	60,583
15-19	57,628	56,594	59,482	66,931	66,639	63,600	63,995
20-24	57,596	60,799	57,922	61,818	69,556	69,250	66,094
25-29	55,570	56,250	55,201	54,584	58,255	65,548	65,259
30-34	49,859	55,571	57,084	55,618	54,990	58,686	66,035
35-39	45,766	47,563	57,727	56,876	55,414	54,790	58,473
40-44	47,346	47,290	51,034	60,798	59,902	58,363	57,706
45-49	57,519	50,248	46,146	51,982	61,921	61,013	59,447
50-54	59,399	59,533	47,515	45,698	51,478	61,316	60,421
55-59	54,231	58,202	57,235	46,118	44,355	49,966	59,513
60-64	43,573	51,139	58,656	55,834	44,981	43,265	48,738
65-69	31,944	37,734	52,515	55,531	52,862	42,581	40,957
70-74	25,683	27,483	39,575	50,126	53,013	50,470	40,648
75-79	21,724	21,442	26,223	35,357	44,793	47,404	45,133
80-84	18,004	17,696	17,881	21,576	29,065	36,837	39,006
85+	19,226	20,026	20,397	20,388	23,245	29,997	38,109
Total	814,180	842,847	886,667	918,590	947,777	973,331	995,668

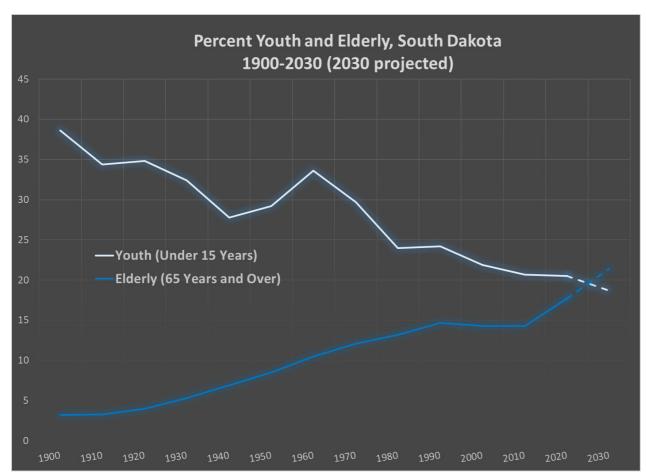


### State Population Projections

Total Population Projections, South Dakota					
	2020	2030	2040		
0-4	57,742	58,543	63,943		
5-9	61,449	59,011	61,609		
10-14	62,883	59,754	60,583		
15-19	59,482	66,639	63,995		
20-24	57,922	69,556	66,094		
25-29	55,201	58,255	65,259		
30-34	57,084	54,990	66,035		
35-39	57,727	55,414	58,473		
40-44	51,034	59,902	57,706		
45-49	46,146	61,921	59,447		
50-54	47,515	51,478	60,421		
55-59	57,235	44,355	59,513		
60-64	58,656	44,981	48,738		
65-69	52,515	52,862	40,957		
70-74	39,575	53,013	40,648		
75-79	26,223	44,793	45,133		
80-84	17,881	29,065	39,006		
85+	20,397	23,245	38,109		
Total	886,667	947,777	995,668		



### Youth and Elderly: Past, Present, and Projected



Data source: the U.S. Census Bureau, the Decennial Censuses. State Population Projections.

The percent of elderly population (aged 65 and above) in South Dakota was stabilized between 13 and 14 percent of the state population in from 1990 to 2010. It had an increase from 14.3% in 2010 to 17.7% in 2020. The growth in the elderly population is projected to continue to surpass 20 percent in 2030.

Meanwhile, the youth population (aged 0-14) had declined since 1990 and is projected to drop to less than 20 percent in 2030.

### End

Thank you! Questions?