

Natality

An Overview: 2015

Total Resident Live Births	12,323
Crude Birth Rate per 1,000 Population	14.4
Median Live Birth Weight (Grams)	3,394
Low Weight Births (Less than 2,500 grams)	759
Percent Low Birth Weight	6.2%
Mean Age of Mother	28
No Prenatal Care	0.9%

Resident births increased by less than one percent from 2014 when there were 12,281 births. In 2015, 52.3 percent of the babies born were male and 47.7 percent were female. Racially, white births were 52.3 percent male and 47.7 percent female; American Indian births were 51.8 percent male, 48.2 percent female.

The low birth weight rate per 1,000 live births decreased from 65.5 in 2014 to 61.6 in 2015. This was a 6.0 percent decrease from the 2014 low birth weight rate.

Starting in 2006, the South Dakota Department of Health implemented the 2003 U.S. Standard Certificate of Live Birth. **Please note education, prenatal care, and tobacco use data are no longer comparable with data years before 2006.** There were 12,323 births to South Dakota residents in 2015, for a crude birth rate of 14.4 per 1,000 South Dakota resident population.

Table 7, below, displays the live births and crude birth rates for the United States and South Dakota for the past 16 years. South Dakota's birth rate remains above the national average as shown in this table.

**Table 7
Resident Live Births and Crude Birth Rates,
South Dakota and United States, 2000-2015**

Year	United States		South Dakota	
	Number	Crude Rate	Number	Crude Rate
2015	*3,977,745	*12.4	12,323	14.4
2014	3,988,076	12.5	12,281	14.4
2013	3,932,181	12.4	12,243	14.5
2012	3,952,841	12.6	12,092	14.5
2011	3,953,590	12.7	11,834	14.4
2010	3,999,386	13.0	11,795	14.5
2009	4,130,665	13.5	11,930	14.7
2008	4,247,694	14.0	12,074	15.0
2007	4,316,223	14.3	12,253	15.4
2006	4,265,555	14.2	11,914	15.1
2005	4,138,349	14.0	11,466	14.7
2004	4,112,052	14.0	11,339	14.6
2003	4,089,950	14.1	11,022	14.4
2002	4,021,726	13.9	10,698	14.0
2001	4,025,933	14.5	10,475	13.8
2000	4,058,814	14.7	10,346	13.7

Note: *U.S. 2015 data are provisional.

Crude birth rates are per 1,000 population.

Sources: National Center for Health Statistics

South Dakota Department of Health, Office of Health Statistics

Births by Race

Race is assigned based on standards set forth by the National Center for Health Statistics and the US Census Bureau in order for South Dakota's race data to be comparable to other areas. All race data in this section are now categorized in the following manner:

Single-race white
 Single-race American Indian
 Two or more races

The remaining categories (Single-race Black, Single-race Asian, and Single-race

Pacific Islander) are included in the totals, but are not necessarily shown specifically in any tables.

Table 8, below, shows the number and percent of resident births by mother's race since 2006. In 2015, the number of births to whites decreased by 1.2 percent, and the number of births for American Indians increased by 5.2 percent. The number of births to two or more races increased by 7.3 percent and the number of births to other races increased by 4.1 percent.

Table 8
South Dakota Resident Live Births by Mother's Race, 2006-2015

Births		White		American Indian		Two or More Races		Other		Not Stated	
Year	Num	Num	%	Num	%	Num	%	Num	%	Num	%
2015	12,323	9,065	75.2	1,988	16.5	442	3.7	557	4.6	271	-
2014	12,281	9,175	76.4	1,889	15.7	412	3.4	535	4.5	270	-
2013	12,243	9,142	76.2	1,956	16.3	365	3.0	541	4.5	239	-
2012	12,092	9,111	76.5	1,936	16.3	399	3.3	465	3.9	181	-
2011	11,834	8,921	76.5	1,953	16.8	340	2.9	444	3.8	176	-
2010	11,795	9,245	78.5	1,835	15.6	326	2.8	374	3.2	15	-
2009	11,930	9,330	78.3	1,885	15.8	341	2.9	359	3.0	15	-
2008	12,074	9,432	78.2	1,992	16.5	302	2.5	330	2.7	18	-
2007	12,253	9,571	78.2	2,055	16.8	280	2.3	331	2.7	16	-
2006	11,914	9,371	78.8	1,951	16.4	270	2.3	304	2.6	18	-

Source: South Dakota Department of Health, Office of Health Statistics

Multiple Births

Table 9, below, displays resident multiple births for the last 10 years. The highest number of twins was born in 2008

with 204 sets. The highest number of triplets happened in 2007 with seven sets of triplets born.

Table 9
South Dakota Resident Multiple Live Births, 2006-2015

Year of Birth	Twins	Triplets or More
2015	186	5
2014	192	4
2013	178	5
2012	174	2
2011	166	2
2010	177	6
2009	144	4
2008	204	3
2007	173	7
2006	188	2

Source: South Dakota Department of Health, Office of Health Statistics

Marital Status

In 2015, the majority of women who gave birth, 62.9 percent, were married as displayed in Table 10 below. When looking at the data by race, American

Indian women have consistently had the highest percent of births out of wedlock with 83.6 percent in 2015.

Table 10
South Dakota Resident Births Out of Wedlock by Year of Birth and Race, 2006-2015

Year	All Races		White		American Indian		Two or More Races		Other	
	Num	%	Num	%	Num	%	Num	%	Num	%
2015	4,571	37.1	2,336	25.8	1,658	83.6	281	63.6	156	28.0
2014	4,623	37.7	2,440	26.6	1,583	84.1	274	66.5	192	35.9
2013	4,669	38.1	2,483	27.2	1,653	84.5	245	67.1	167	30.9
2012	4,671	38.6	2,530	27.8	1,631	84.2	251	62.9	167	35.9
2011	4,597	38.8	2,461	27.6	1,662	85.1	226	66.5	157	35.4
2010	4,427	37.5	2,570	27.8	1,522	82.9	205	62.9	125	33.4
2009	4,573	38.3	2,644	28.3	1,543	81.9	238	69.8	143	39.8
2008	4,633	38.4	2,647	28.1	1,650	82.8	195	64.6	127	38.5
2007	4,699	38.3	2,685	28.1	1,696	82.5	184	65.7	125	37.8
2006	4,422	37.1	2,509	26.8	1,627	83.4	174	64.4	103	33.9

Note: Failure of races to add to the total is due to races not stated included in the total.
Source: South Dakota Department of Health, Office of Health Statistics

Birth Weight

Table 11, below, indicates that in 2015 the majority of births fell into the 3,000 to 3,499 gram range. This is consistent with data from the past several years. There were 759 low weight births or 6.2 percent of all South Dakota resident live births in 2015. When looking at race, 5.7 percent of

white babies and 7.2 percent of American Indian babies were low birth weight in 2015. In comparison, in 2014 white and American Indian low birth weight births were 6.3 and 7.0 percent, respectively. Table 12, on the next page, compares the birth weights of infants for the past 10 years.

Table 11
South Dakota Resident Live Births by Birth Weight and Mother's Race, 2015

Birth Weight (in Grams)	Total		Race of Mother							
			White		American Indian		Two or More Races		Other	
	Num	%	Num	%	Num	%	Num	%	Num	%
<2,000	278	2.3	182	2.0	63	3.2	12	2.7	15	2.7
2,000-2,499	481	3.9	336	3.7	81	4.1	26	5.9	26	4.7
2,500-2,999	1,864	15.1	1,335	14.7	270	13.6	70	15.8	125	22.4
3,000-3,499	4,597	37.3	3,368	37.2	735	37.0	160	36.2	240	43.1
3,500-3,999	3,813	30.9	2,903	32.0	577	29.0	134	30.3	124	22.3
4,000-4,499	1,107	9.0	833	9.2	204	10.3	32	7.2	21	3.8
4,500+	182	1.5	108	1.2	57	2.9	8	1.8	6	1.1
Not Stated	1	-	0	-	1	-	0	-	0	-
Total	12,323	100	9,065	100	1,988	100	442	100	557	100
Median birth weight in grams	3,394		3,405		3,402		3,360		3,230	
Mean birth weight in grams	3,357		3,369		3,375		3,309		3,197	
Modal birth weight in grams	3,600		3,500		3,175		3,460		3,040	

Note: Failure of the races to add to the total is due to race not stated in the total birth column.
Source: South Dakota Department of Health, Office of Health Statistics

Table 12
South Dakota Resident Births by Birth Weight and Year of Birth, 2006-2015

Year	Total Births		< 2500 Grams		2500 + Grams		Not Stated	
	Num	%	Num	%	Num	%	Num	%
2015	12,323	100	759	6.2	11,563	93.8	1	-
2014	12,281	100	805	6.6	11,474	93.4	2	-
2013	12,243	100	770	6.3	11,468	93.7	5	-
2012	12,092	100	751	6.2	11,338	93.8	3	-
2011	11,834	100	746	6.3	11,084	93.7	4	-
2010	11,795	100	811	6.9	10,981	93.1	3	-
2009	11,930	100	700	5.9	11,228	94.1	2	-
2008	12,074	100	783	6.5	11,283	93.5	8	-
2007	12,253	100	853	7.0	11,395	93.0	5	-
2006	11,914	100	838	7.0	11,066	93.0	10	-

Source: South Dakota Department of Health, Office of Health Statistics

Table 13, below, compares the low birth weight babies by race of mother from 2006 to 2015. In 2015, there were 518 or 5.7 percent low birth weight babies born to white women. For American Indian women there were 144 or 7.2 percent.

In 2015, there was a 9.5 percent decrease in white low birth weight babies and a 2.9 percent increase in low birth weight babies among American Indians.

Table 13
South Dakota Resident Low Birth Weight Births by Race of Mother, 2006-2015

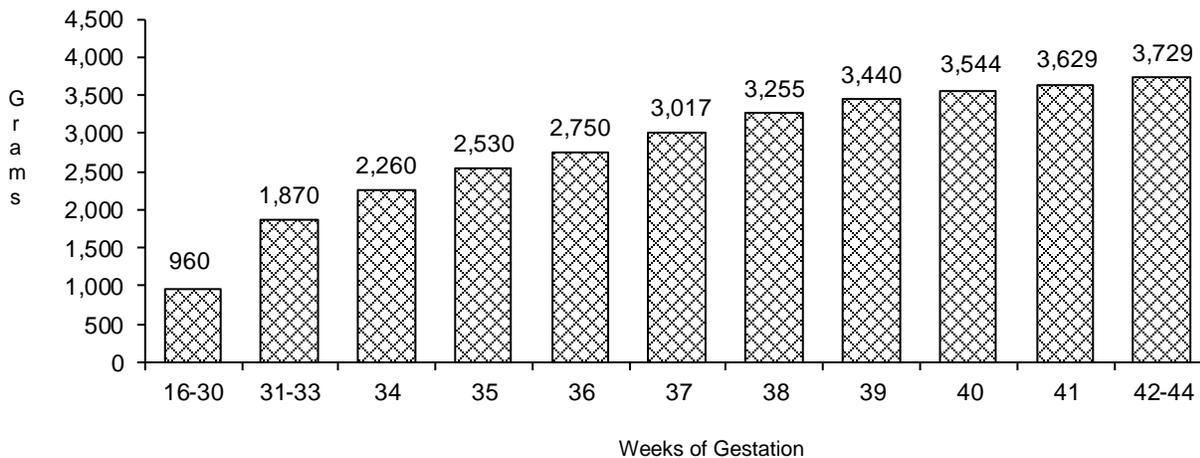
Year	Mother's Race				
	Total	White	American Indian	Two or More Races	Other
2015	6.2%	5.7%	7.2%	8.6%	7.4%
2014	6.6%	6.3%	7.0%	6.3%	8.8%
2013	6.3%	5.9%	6.8%	6.3%	8.5%
2012	6.2%	5.7%	7.8%	6.5%	9.5%
2011	6.3%	5.8%	6.8%	7.9%	11.5%
2010	6.9%	6.9%	6.1%	6.7%	9.9%
2009	5.9%	5.6%	5.9%	6.2%	12.0%
2008	6.5%	6.2%	6.7%	7.0%	11.2%
2007	7.0%	6.6%	7.5%	10.0%	10.3%
2006	7.0%	6.8%	7.8%	7.0%	8.6%

Source: South Dakota Department of Health, Office of Health Statistics

Figure 2, below, shows live births by weeks of gestation and median birth weight for the past five years.

Overall, the longer the weeks of gestation the higher the median birth weight.

Figure 2
South Dakota Resident Live Births by Gestation and Median Birth Weight, 2011-2015



Source: South Dakota Department of Health, Office of Health Statistics

Table 14, below, displays resident births by year of birth and weeks of gestation. In 2015, the majority of births, 59.1 percent,

occurred between 37 to 39 weeks of gestation. This is consistent with the past several years.

**Table 14
South Dakota Resident Births by Year of Birth and Weeks of Gestation, 2006-2015**

Year	Total		<35		35-36		37-39		40+		Not Stated	
	Num	%	Num	%	Num	%	Num	%	Num	%	Num	%
2015	12,323	100	385	3.1	665	5.4	7,268	59.1	3,990	32.4	15	-
2014	12,281	100	416	3.4	622	5.1	7,310	59.7	3,894	31.8	39	-
2013	12,243	100	373	3.1	618	5.1	7,069	57.9	4,157	34.0	26	-
2012	12,092	100	373	3.1	572	4.7	6,734	55.8	4,393	36.4	20	-
2011	11,834	100	379	3.2	561	4.7	6,730	56.9	4,151	35.1	13	-
2010	11,795	100	412	3.5	600	5.1	6,764	57.5	3,996	33.9	23	-
2009	11,930	100	335	2.8	608	5.1	6,787	57.0	4,177	35.1	23	-
2008	12,074	100	382	3.2	660	5.5	7,031	58.4	3,971	33.0	30	-
2007	12,253	100	431	3.5	732	6.0	6,804	55.7	4,254	34.8	32	-
2006	11,914	100	423	3.6	681	5.7	6,755	56.8	4,035	33.9	20	-

Source: South Dakota Department of Health, Office of Health Statistics

Tobacco Use

Table 15, below, displays the percent of mothers who smoked during the past 10 years. In 2015, 20.9 percent stated they

smoked three months prior to pregnancy, and 14.0 percent smoked anytime during their pregnancy.

**Table 15
South Dakota Resident Live Births by Cigarette Smoking Status, 2006-2015**

Year	Mother's Smoking Status				
	Three Months Prior to Pregnancy	First Trimester	Second Trimester	Third Trimester	Anytime During Pregnancy
2015	20.9%	13.6%	10.4%	9.5%	14.0%
2014	21.7%	14.4%	11.1%	10.2%	14.8%
2013	22.5%	14.6%	11.4%	10.5%	15.1%
2012	24.0%	16.0%	12.5%	11.4%	16.5%
2011	24.4%	16.1%	12.5%	11.5%	16.9%
2010	24.5%	16.4%	12.8%	11.9%	17.1%
2009	26.2%	17.7%	13.7%	13.0%	18.5%
2008	25.9%	17.7%	14.0%	13.2%	18.5%
2007	26.0%	18.3%	15.2%	14.4%	19.4%
2006	26.0%	18.5%	15.0%	14.1%	19.2%

Source: South Dakota Department of Health, Office of Health Statistics

Table 16, on the next page, displays the percent of mothers who smoked prior to pregnancy for the past 10 years by their smoking status during pregnancy.

The largest percentage of women stated they never quit smoking during their pregnancy, however, this decreased from 50.7 percent in 2006 to 42.9 percent in 2015.

Table 16
South Dakota Resident Births to Mothers Who Smoked Prior to Pregnancy by Smoking Status During Pregnancy, 2006-2015

Year	Quit before becoming pregnant	Quit before second trimester	Quit before third trimester	Never quit	Stopped at some point during pregnancy, but started again before giving birth
2015	33.9%	15.0%	6.1%	42.9%	2.2%
2014	32.3%	15.5%	5.5%	44.4%	2.3%
2013	33.8%	14.0%	5.9%	43.5%	2.8%
2012	32.3%	14.4%	6.1%	44.6%	2.6%
2011	32.5%	15.0%	6.0%	43.6%	3.0%
2010	31.2%	14.7%	5.6%	45.1%	3.4%
2009	31.0%	15.0%	5.0%	46.0%	3.0%
2008	31.0%	13.4%	5.4%	47.2%	3.0%
2007	27.3%	12.5%	6.0%	50.5%	3.7%
2006	26.5%	13.9%	5.5%	50.7%	3.4%

Source: South Dakota Department of Health, Office of Health Statistics

Mother's Age and Race

Table 17, below, displays that women aged 25 to 29 accounted for the largest percentage of South Dakota resident births in 2015, at 33.9 percent. Women less than 20 years of age comprised 5.8 percent of the total resident births.

The median ages for white, American Indian, and two or more races were 28, 25, and 25 years of age, respectively. The modal ages for the same race groups were 29, 22, and 24 years of age respectively.

Table 17
South Dakota Resident Live Births by Mother's Age and Race, 2015

Age of Mother	Total		Race of Mother							
			White		American Indian		Two or More Races		Other	
			Num	%	Num	%	Num	%	Num	%
Less than 18	161	1.3	55	0.6	83	4.2	10	2.3	6	1.1
18-19 Years	565	4.6	295	3.3	199	10.0	33	7.5	20	3.6
20-24 Years	2,746	22.3	1,692	18.7	677	34.1	160	36.2	126	22.6
25-29 Years	4,172	33.9	3,212	35.4	547	27.5	145	32.8	198	35.5
30-34 Years	3,331	27.0	2,741	30.2	321	16.1	69	15.6	140	25.1
35-39 Years	1,130	9.2	912	10.1	127	6.4	19	4.3	51	9.2
40 & over	218	1.8	158	1.7	34	1.7	6	1.4	16	2.9
Total	12,323	100	9,065	100	1,988	100	442	100	557	100

Note: Failure of race to add to the total is due to races not stated in the total birth column.

Source: South Dakota Department of Health, Office of Health Statistics

Table 18, below, displays the mother's age for births in the past 10 years. The largest

percentage of births in this time period were to mothers aged 25-29 years old.

Table 18
South Dakota Resident Live Births by Mother's Age and Year of Birth, 2006-2015

Year	Total Births		Age of Mother													
			< 18		18-19		20-24		25-29		30-34		35-39		40+	
			Num	%	Num	%	Num	%	Num	%	Num	%	Num	%	Num	%
2015	12,323	100	161	1.3	565	4.6	2,746	22.3	4,172	33.9	3,331	27.0	1,130	9.2	218	1.8
2014	12,281	100	223	1.8	519	4.2	2,778	22.6	4,161	33.9	3,251	26.5	1,148	9.3	201	1.6
2013	12,243	100	224	1.8	598	4.9	2,885	23.6	4,184	34.2	3,027	24.7	1,123	9.2	202	1.6
2012	12,092	100	272	2.2	665	5.5	2,950	24.4	4,105	33.9	2,905	24.0	1,001	8.3	194	1.6
2011	11,834	100	256	2.2	718	6.1	2,877	24.3	4,023	34.0	2,740	23.2	988	8.3	232	2.0
2010	11,795	100	269	2.3	714	6.1	2,989	25.3	4,033	34.2	2,638	22.4	959	8.1	193	1.6
2009	11,930	100	313	2.6	789	6.6	3,151	26.4	3,903	32.7	2,599	21.8	960	8.0	215	1.8
2008	12,074	100	358	3.0	772	6.4	3,250	26.9	3,988	33.0	2,551	21.1	956	7.9	198	1.6
2007	12,253	100	343	2.8	855	7.0	3,306	27.0	4,091	33.4	2,493	20.3	995	8.1	169	1.4
2006	11,914	100	329	2.8	805	6.8	3,288	27.6	3,885	32.6	2,396	20.1	1,001	8.4	210	1.8

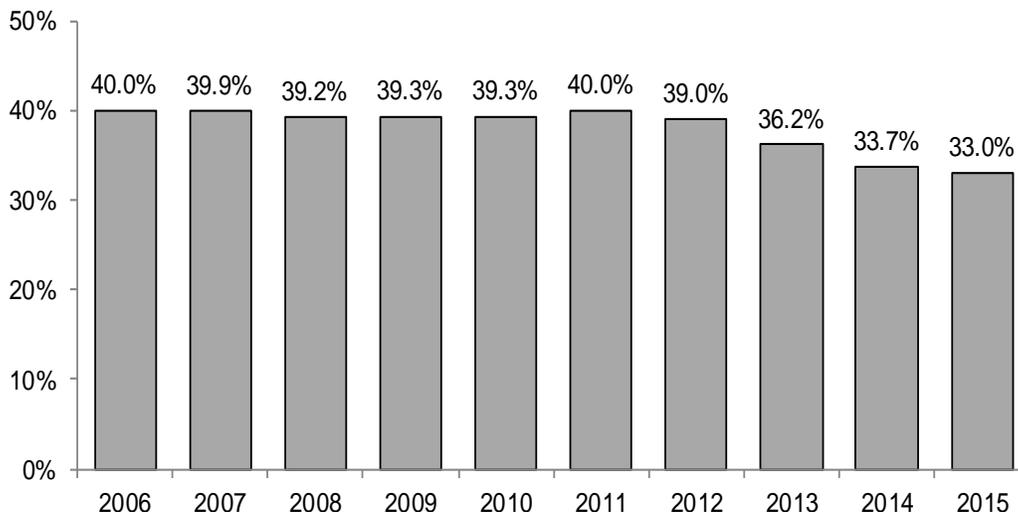
Note: Failure of ages to add to total births is due to mother's age not stated.

Source: South Dakota Department of Health, Office of Health Statistics

Figure 3, below, displays the percent of South Dakota resident live births on the Special Supplemental Nutrition Program for Women, Infants and Children (WIC) for the

past 10 years. In 2015, 33.0 percent of mothers were on WIC during their pregnancy.

Figure 3
South Dakota Resident Live Births by WIC Status, 2006-2015

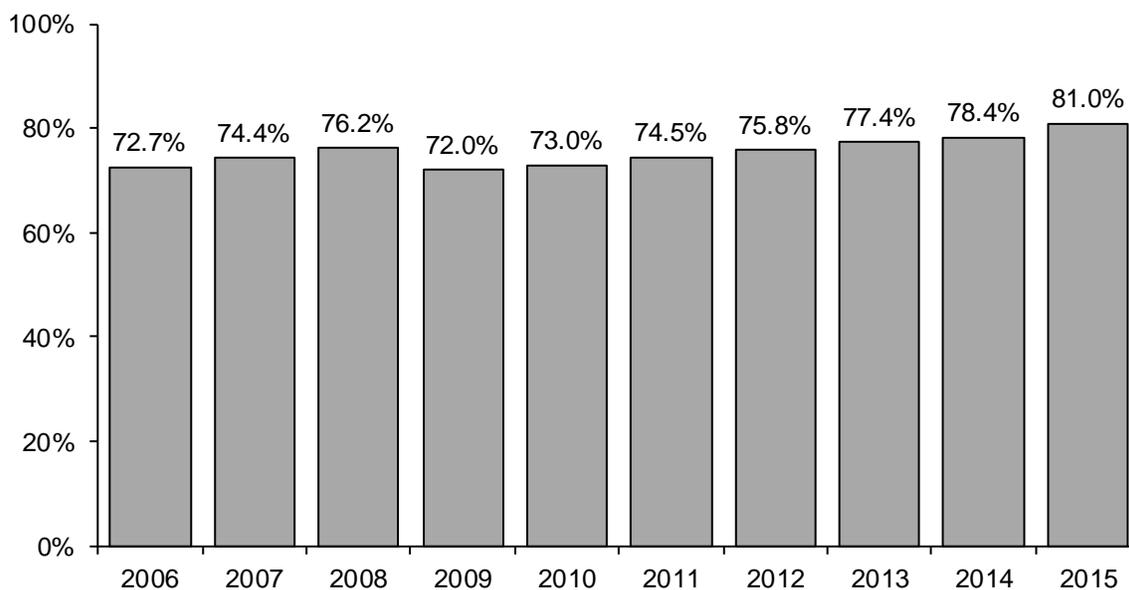


Source: South Dakota Department of Health, Office of Health Statistics

Figure 4, below, displays the percent of mothers breastfeeding at time of hospital discharge. The percent of women who

were breastfeeding at time of discharge increased from 78.4 percent in 2014 to 81.0 percent in 2015.

Figure 4
South Dakota Resident Live Births by Breastfeeding Status at Time of Discharge, 2006-2015



Source: South Dakota Department of Health, Office of Health Statistics

Table 19, below, displays South Dakota resident teen births (15 to 17 years old) by race from 2006 to 2015. In 2015, the teen birth rate was 9.5, down from the 2014 rate

of 13.2. When looking at race, the white teen birth rate was 4.1 compared to a teen birth rate of 34.9 for American Indians in 2015.

Table 19
South Dakota Resident Teen Births and Rates by Year and Mother's Race, 2006-2015

Year	Total		White		American Indian		Two or More Races		Other	
	Num	Rate	Num	Rate	Num	Rate	Num	Rate	Num	Rate
2015	153	9.5	52	4.1	78	34.9	10	15.0	6	10.1
2014	216	13.2	95	7.4	88	40.2	15	23.1	9	13.2
2013	214	13.2	84	6.5	96	43.3	19	31.0	7	12.0
2012	264	16.4	117	9.2	105	48.6	28	47.0	8	14.3
2011	245	15.2	103	8.0	112	52.2	19	32.9	5	10.4
2010	259	15.8	130	10.1	112	50.7	14	23.6	3	4.8
2009	303	18.5	147	11.1	114	48.9	26	64.0	16	40.9
2008	345	20.7	151	11.2	158	67.7	27	64.6	7	19.4
2007	334	19.7	160	11.6	149	62.2	20	46.8	3	9.5
2006	318	18.7	152	10.9	141	59.1	19	46.0	6	20.1

Note: Rates are per 1,000 female population ages 15-17.
Failure of races to add to the total is due to races not stated.
Source: South Dakota Department of Health, Office of Health Statistics

Prenatal Care

Table 20, below, shows the number of South Dakota resident live births by when the mothers started prenatal care in 2014. Nearly 73 percent of mothers started care in the first trimester – 79.2 percent of white mothers and 50.8 percent of American

Indian mothers. Overall, less than one percent failed to obtain prenatal care at all (0.3 percent of white mothers and 3.8 percent of American Indian mothers).

Table 20
South Dakota Resident Live Births by Trimester Prenatal Care Began and Mother's Race, 2015

Trimester Prenatal Care Began	Total		Race of Mother							
			White		American Indian		Two or More Races		Other	
	Num	%	Num	%	Num	%	Num	%	Num	%
First	8,813	72.8	7,088	79.2	974	50.8	260	60.2	327	60.2
Second	2,579	21.3	1,547	17.3	652	34.0	128	29.6	180	33.1
Third	610	5.0	290	3.2	220	11.5	39	9.0	33	6.1
None	107	0.9	24	0.3	72	3.8	5	1.2	3	0.6
Not Stated	214	-	116	-	70	-	10	-	14	-
Total	12,323	100	9,065	100	1,988	100	442	100	557	100

Note: Failure of the races to add to the total is due to the races not stated contained in the total birth column.
Source: South Dakota Department of Health, Office of Health Statistics

Table 21, on the following page, shows the number of mothers who began prenatal care by trimester for the past 10 years.

The majority of mothers in all years began prenatal care in their first trimester.

Table 21
South Dakota Resident Live Births by Trimester Prenatal Care Began, 2006-2015

Year	Total		First		Second		Third		No Prenatal Care		Not Stated	
	Num	%	Num	%	Num	%	Num	%	Num	%	Num	%
2015	12,323	100	8,813	72.8	2,579	21.3	610	5.0	107	0.9	214	-
2014	12,281	100	8,725	72.2	2,611	21.6	653	5.4	98	0.8	194	-
2013	12,243	100	8,645	72.0	2,676	22.3	609	5.1	73	0.6	240	-
2012	12,092	100	8,332	70.5	2,756	23.3	650	5.5	78	0.7	276	-
2011	11,834	100	8,085	69.7	2,805	24.2	632	5.5	75	0.6	237	-
2010	11,795	100	8,208	70.9	2,684	23.2	594	5.1	79	0.7	230	-
2009	11,930	100	7,841	66.9	3,076	26.2	719	6.1	88	0.8	206	-
2008	12,074	100	8,179	68.9	2,948	24.8	641	5.4	96	0.8	210	-
2007	12,253	100	8,544	70.7	2,846	23.5	605	5.0	91	0.8	167	-
2006	11,914	100	8,160	70.3	2,779	24.0	562	4.8	99	0.9	314	-

Source: South Dakota Department of Health, Office of Health Statistics

Payment Type

Table 22, below, displays the number of births by payment type for the past five years. In 2015 the majority of births, 59.0

percent, were paid by private insurance. The second highest payment type was Medicaid with 31.2 percent.

Table 22
South Dakota Resident Live Births by Payment Type, 2011-2015

Payment Type	Year									
	2011		2012		2013		2014		2015	
	Num	%								
Private Insurance	6,593	56.0	6,787	56.4	6,850	56.2	6,975	57.1	7,259	59.0
Medicaid	4,164	35.4	4,072	33.8	4,078	33.5	3,906	32.0	3,831	31.2
Indian Health Service	336	2.9	389	3.2	382	3.1	408	3.3	386	3.1
Self-Pay	256	2.2	299	2.5	348	2.9	359	2.9	379	3.1
Champus/Tricare	318	2.7	353	2.9	334	2.7	396	3.2	348	2.8
Other Government	22	0.2	29	0.2	113	0.9	82	0.7	42	0.3
Other	74	0.6	108	0.9	80	0.7	82	0.7	48	0.4
Not Stated	71	-	55	-	58	-	73	-	30	-

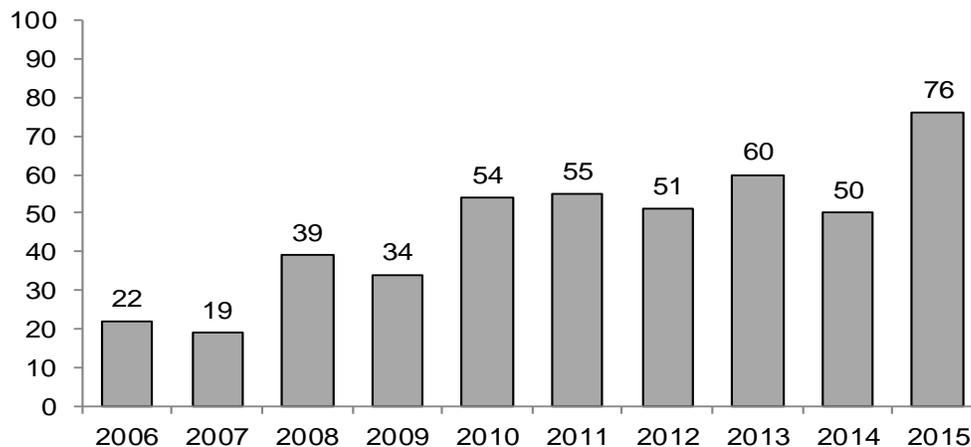
Source: South Dakota Department of Health, Office of Health Statistics

Home Births

Figure 5, below, displays the number of intended home births for South Dakota residents in the past 10 years. In 2015,

intended home births constituted less than one percent (0.8 percent) of South Dakota resident births.

Figure 5
South Dakota Resident Intended Home Births, 2006-2015



Source: South Dakota Department of Health, Office of Health Statistics

Attendant at Birth

Table 23, below, displays South Dakota resident live births by the attendant at birth for the past 10 years. In all years the

majority of attendants at birth have been physicians.

**Table 23
South Dakota Resident Live Births by Attendant at Birth, 2006-2015**

Year	Total		Physician (MD, Resident, Intern)		Certified Nurse Midwife (CNM)		Doctor of Osteopathy (DO)		Nurse (RN, LPN, NC)		Licensed Certified Nurse Midwife		Other		Not Stated	
	Num	%	Num	%	Num	%	Num	%	Num	%	Num	%	Num	%	Num	%
2015	12,323	100	10,630	86.3	844	6.8	669	5.4	66	0.5	53	0.4	52	0.4	0	-
2014	12,281	100	10,604	86.4	792	6.5	687	5.6	59	0.5	55	0.4	43	0.4	2	-
2013	12,243	100	10,560	87.3	770	6.4	569	4.7	60	0.5	63	0.5	81	0.7	140	-
2012	12,092	100	10,573	88.5	755	6.3	491	4.1	42	0.4	32	0.3	57	0.5	142	-
2011	11,834	100	10,471	88.5	699	5.9	423	3.6	148	1.3	29	0.2	60	0.5	4	-
2010	11,795	100	10,342	87.7	711	6.0	617	5.2	39	0.3	24	0.2	53	0.4	9	-
2009	11,930	100	10,603	89.1	759	6.4	418	3.5	50	0.4	12	0.1	62	0.5	26	-
2008	12,074	100	10,717	88.8	770	6.4	449	3.7	68	0.6	8	0.1	54	0.4	5	-
2007	12,253	100	10,862	88.7	869	7.1	432	3.5	50	0.4	0	0.0	36	0.3	4	-
2006	11,914	100	10,601	89.0	856	7.2	379	3.2	37	0.3	0	0.0	41	0.3	0	-

Note: Licensed Certified Nurse Midwives are licensed by the Board of Nursing to deliver out of an institution. Certified Nurse Midwives are those that deliver in a hospital under a physician's license.

Source: South Dakota Department of Health, Office of Health Statistics

Infections Present and/or Treated

Table 24, below, displays resident births by infections present and/or treated during mother's pregnancy for the past five years. The majority of births, 95.3 percent in 2015, had no infections present or treated.

For all five years, chlamydia was the main infection present and/or treated during pregnancy. In 2015, chlamydia infections were present or treated in 2.6 percent of births.

**Table 24
South Dakota Resident Live Births by Infections Present and/or Treated During This Pregnancy and Year of Birth, 2011-2015**

	Year of Birth									
	2011		2012		2013		2014		2015	
	Num	%	Num	%	Num	%	Num	%	Num	%
Chlamydia	280	2.4	265	2.2	310	2.5	299	2.4	324	2.6
Genital herpes*	87	0.7	126	1.0	156	1.3	165	1.3	178	1.4
Gonorrhea	22	0.2	45	0.4	38	0.3	38	0.3	54	0.4
Hepatitis C	21	0.2	19	0.2	19	0.2	22	0.2	43	0.3
Hepatitis B	18	0.2	15	0.1	15	0.1	16	0.1	19	0.2
Syphilis	1	0.0	3	0.0	4	0.0	12	0.1	5	0.0
Toxoplasmosis	0	0.0	0	0.0	0	0.0	3	0.0	5	0.0
Cytomegalovirus (CMV)	1	0.0	1	0.0	2	0.0	5	0.0	4	0.0
Rubella	5	0.0	3	0.0	5	0.0	4	0.0	0	0.0
No infections	11,414	96.5	11,641	96.3	11,707	95.8	11,710	95.6	11,712	95.3

Note: *According to the National Center for Health Statistics, genital herpes is comparable with data prior to 2006.

Percentages may sum to more than 100 percent because multiple infections may be reported for a single birth.

Source: South Dakota Department of Health, Office of Health Statistics

Medical History Factors

Table 25, below, lists the medical history factors for South Dakota resident mothers during the past five years.

The most common medical history factor for all five years was the mother had a previous cesarean delivery.

Table 25
South Dakota Resident Live Births by Mother's Medical History Factors and Year of Birth, 2011-2015

	Year of Birth									
	2011		2012		2013		2014		2015	
	Num	%	Num	%	Num	%	Num	%	Num	%
Mother had a previous cesarean delivery	1,589	13.4	1,566	13.0	1,673	13.7	1,655	13.5	1,864	15.2
Diabetes, gestational	688	5.8	655	5.4	775	6.3	904	7.4	962	7.8
Hypertension, gestational	567	4.8	523	4.3	493	4.0	578	4.7	619	5.1
Other previous poor pregnancy outcomes	532	4.5	497	4.1	438	3.6	519	4.2	481	3.9
Previous preterm births	440	3.7	389	3.2	370	3.0	322	2.6	370	3.0
Hypertension, pre-pregnancy*	142	1.2	127	1.1	169	1.4	158	1.3	169	1.3
Fertility-enhancing drugs, artificial insemination or intrauterine insemination	104	0.9	130	1.1	143	1.2	181	1.5	132	1.1
Diabetes, pre-existing	94	0.8	97	0.8	109	0.9	113	0.9	104	0.8
Assisted reproductive technology	60	0.5	47	0.4	53	0.4	45	0.4	40	0.3
Hypertension, eclampsia	22	0.2	21	0.2	37	0.3	36	0.3	36	0.3
No medical risk factors for this pregnancy	8,303	70.2	8,745	72.4	8,727	71.4	8,521	69.6	8,299	68.0

Note: *According to the National Center for Health Statistics, hypertension, pre-pregnancy is comparable with data prior to 2006. Percentages may sum to more than 100 percent because multiple factors may be reported for a single birth.

Source: South Dakota Department of Health, Office of Health Statistics

Apgar Score

The Apgar score was developed by the late Virginia Apgar, M.D., as a standardized mechanism to assess the physical condition of newborns. The score considers five easily identifiable characteristics – heart rate, respiratory effort, muscle tone, reflex, and color.

Each characteristic is assessed and assigned a value from zero to two, with two being optimum. If the total score of these five components is seven or greater, a newborn is considered to be in good to excellent physical condition.

In 2015, 2.0 percent of South Dakota resident infants received five minute Apgar scores less than seven.

Considering race, 1.9 percent of white infants, 2.3 percent of American Indian infants, and 0.7 percent of infants with two or more races received a five-minute Apgar score less than seven in 2015.

Characteristics of Labor and Delivery

Table 26, below, lists the characteristics of labor and delivery for the past five years reported on South Dakota resident birth certificates. The four most prevalent characteristics in 2015 were epidural or spinal anesthesia with 53.5 percent,

augmentation of labor with 30.2 percent, antibiotics during labor with 27.6 percent, and induction of labor with 26.1 percent. Overall characteristics of labor and delivery were present in 79.6 percent of resident births in 2015.

Table 26
South Dakota Resident Live Births by
Characteristics of Labor and Delivery and Year of Birth, 2011-2015

	Year of Birth									
	2011		2012		2013		2014		2015	
	Num	%	Num	%	Num	%	Num	%	Num	%
Epidural or spinal anesthesia	6,174	52.2	6,348	52.5	6,429	52.5	6,577	53.6	6,594	53.5
Augmentation of labor	3,241	27.4	3,248	26.9	3,435	28.1	3,693	30.1	3,712	30.2
Antibiotics during labor	3,241	27.4	3,291	27.2	3,403	27.8	3,420	27.9	3,394	27.6
Induction of labor*	3,518	29.7	3,230	26.7	3,240	26.5	3,158	25.7	3,219	26.1
Meconium staining of the amniotic fluid	856	7.2	937	7.7	1,020	8.3	1,009	8.2	1,125	9.2
Fetal intolerance	777	6.6	775	6.4	615	5.0	449	3.7	583	4.8
Non-vertex presentation	475	4.0	561	4.6	488	4.0	490	4.0	500	4.1
Steroids (glucocorticoids) for fetal lung maturation received by the mother prior to delivery	153	1.3	165	1.4	204	1.7	206	1.7	369	3.0
Chorioamnionitis diagnosed during labor	56	0.5	93	0.8	113	0.9	132	1.1	158	1.3
None of the above	2,487	21.0	2,516	20.8	2,623	21.4	2,569	20.9	2,487	20.4

Note: *According to the National Center for Health Statistics, induction of labor is comparable with data prior to 2006.

Percentages may sum to more than 100 percent because multiple characteristics of labor and delivery may be reported for a single birth.

Source: South Dakota Department of Health, Office of Health Statistics

Obstetric Procedures

Table 27, below, shows obstetric procedures by year of birth for the past five years.

Tocolysis was the top obstetric procedure used for all years.

Table 27
South Dakota Resident Live Births by Obstetric Procedures and Year of Birth, 2011-2015

	Year of Birth									
	2011		2012		2013		2014		2015	
	Num	%	Num	%	Num	%	Num	%	Num	%
Tocolysis*	218	1.8	195	1.6	172	1.4	143	1.2	160	1.3
External cephalic version-failed	31	0.3	35	0.3	24	0.2	29	0.2	36	0.3
Cervical cerclage	44	0.4	35	0.3	51	0.4	34	0.3	26	0.2
External cephalic version-successful	21	0.2	24	0.2	25	0.2	17	0.1	26	0.2
No obstetric procedures	11,519	97.4	11,815	97.7	11,961	97.8	12,035	97.3	12,052	98.0

Note: *According to the National Center for Health Statistics, tocolysis is comparable with data prior to 2006.

Percentages may sum to more than 100 percent because multiple obstetric procedures may be reported for a single birth.

Source: South Dakota Department of Health, Office of Health Statistics

Onset of Labor

Table 28, below, displays the complications associated with the onset of labor for the past five years. The primary complication associated with onset of labor for mothers in

2015 was precipitous labor (< 3 hours). In 2015, 11.8 percent of births had a complication associated with the onset of labor.

Table 28
South Dakota Resident Live Births by Onset of Labor and Year of Birth, 2011-2015

	Year of Birth									
	2011		2012		2013		2014		2015	
	Num	%	Num	%	Num	%	Num	%	Num	%
Precipitous labor (< 3 hours)*	509	4.3	593	4.9	613	5.0	664	5.4	653	5.3
Prolonged labor (20 + hours)	251	2.1	288	2.4	359	2.9	508	4.1	459	3.7
Premature rupture of membranes	310	2.6	296	2.4	300	2.5	274	2.2	365	3.0
None of the above	10,776	91.1	10,934	90.4	10,998	89.9	10,857	88.4	10,852	88.2

Note: *According to the National Center for Health Statistics, precipitous labor is comparable with data prior to 2006.

Percentages may sum to more than 100 percent because multiple complications with the onset of labor may be reported for a single birth.

Source: South Dakota Department of Health, Office of Health Statistics

Maternal Complications

Table 29, below, illustrates the maternal complications for the past five years. The highest maternal complication in 2015 was third or fourth degree perineal

laceration with 0.9 percent of births. Overall, maternal complications were present in 1.7 percent of resident births in 2015.

Table 29
South Dakota Resident Live Births by Maternal Complications and Year of Birth, 2011-2015

	Year of Birth									
	2011		2012		2013		2014		2015	
	Num	%	Num	%	Num	%	Num	%	Num	%
Third or fourth degree perineal laceration	158	1.3	139	1.1	128	1.0	112	0.9	115	0.9
Unplanned operating procedure following delivery	28	0.2	35	0.3	31	0.3	40	0.3	45	0.4
Maternal transfusion	48	0.4	44	0.4	58	0.5	55	0.4	42	0.3
Admitted to intensive care	9	0.1	7	0.1	11	0.1	10	0.1	10	0.1
Unplanned hysterectomy	2	0.0	4	0.0	5	0.0	6	0.0	7	0.1
Ruptured uterus	4	0.0	5	0.0	4	0.0	4	0.0	4	0.0
None of the above	11,600	98.0	11,872	98.2	12,024	98.3	12,073	98.4	12,112	98.3

Note: Percentages may sum to more than 100 percent because multiple complications may be reported for a single birth.

Source: South Dakota Department of Health, Office of Health Statistics

Methods of Delivery

Table 30, on the next page, displays the method of delivery for the past five years. Vaginal birth was the primary method of delivery for South Dakota residents for the

past five years. Primary C-section was the second largest method of delivery followed by repeat C-section methods.

Table 30
South Dakota Resident Births by Method of Delivery and Year of Birth, 2011-2015

	2011		2012		2013		2014		2015	
	Num	%								
Vaginal (Total)	8,852	74.8	9,026	74.6	9,115	74.5	9,242	75.3	9,157	74.3
Vaginal with no previous C-section	8,584	72.5	8,752	72.4	8,837	72.2	8,912	72.6	8,791	71.3
Vaginal after previous C-section	265	2.2	269	2.2	267	2.2	313	2.5	338	2.7
Vaginal (unknown previous types)	3	0.0	5	0.0	11	0.1	17	0.1	28	0.2
C-Section (Total)	2,982	25.2	3,066	25.4	3,128	25.5	3,039	24.7	3,166	25.7
Primary C-section	1,658	14.0	1,769	14.6	1,722	14.1	1,694	13.8	1,637	13.3
Repeat C-section	1,324	11.2	1,297	10.7	1,406	11.5	1,342	10.9	1,526	12.4
C-section (unknown previous types)	0	-	0	-	0	-	3	-	3	-

Source: South Dakota Department of Health, Office of Health Statistics

Table 31, below, displays the method of delivery by fetal presentation. The majority of births, 95.3 percent, were cephalic while 3.6 percent were breech.

When looking at primary C-section births, 19.5 percent were breech while 76.9 percent were cephalic.

Table 31
South Dakota Resident Births by Method of Delivery and Fetal Presentation, 2015

	Total		Cephalic		Breech		Other		Not Stated	
	Num	%	Num	%	Num	%	Num	%	Num	%
Total	12,323	100	11,738	95.3	443	3.6	135	1.1	7	-
Vaginal (Total)	9,157	100	9,074	99.1	35	0.4	43	0.5	5	-
Vaginal with no previous C-section	8,791	100	8,712	99.2	32	0.4	42	0.5	5	-
Vaginal after previous C-section	338	100	335	99.1	2	0.6	1	0.3	0	-
Vaginal (unknown previous types)	28	100	27	96.4	1	3.6	0	0.0	0	-
C-Section (Total)	3,166	100	2,664	84.1	408	12.9	92	2.9	2	-
Primary C-section	1,637	100	1,258	76.9	319	19.5	59	3.6	1	-
Repeat C-section	1,526	100	1,403	92.0	89	5.8	33	2.2	1	-
C-section (unknown previous types)	3	100	3	100	0	0.0	0	0.0	0	-

Source: South Dakota Department of Health, Office of Health Statistics

Abnormal Conditions of the Newborn

Table 32, on the next page, shows abnormal conditions in newborns for the past five years. In 2015, 13.0 percent of South Dakota resident live birth certificates reported abnormal conditions of the

newborn. Overall, NICU admission was the most frequently reported condition in 2015 followed by assisted ventilation required immediately following delivery.

Table 32

South Dakota Resident Live Births by Abnormal Conditions of Newborn and Year of Birth, 2011-2015

	Year of Birth									
	2011		2012		2013		2014		2015	
	Num	%	Num	%	Num	%	Num	%	Num	%
NICU admission	1,010	8.5	1,130	9.3	1,189	9.7	1,245	10.1	1,224	9.9
Assisted ventilation required immediately following delivery	478	4.0	593	4.9	770	6.3	806	6.6	797	6.5
Antibiotics received by the newborn for suspected neonatal sepsis	526	4.4	639	5.3	644	5.3	621	5.1	628	5.1
Assisted ventilation required for more than 6 hrs	202	1.7	238	2.0	290	2.4	258	2.1	281	2.3
Newborn given surfactant replacement therapy	81	0.7	90	0.7	91	0.7	86	0.7	87	0.7
Significant birth injury	14	0.1	21	0.2	15	0.1	13	0.1	13	0.1
Seizure or serious neurologic dysfunction	5	0.0	9	0.1	9	0.1	11	0.1	9	0.1
None of the above	10,596	89.6	10,697	88.5	10,725	87.6	10,650	86.7	10,724	87.0

Note: Percentages may sum to more than 100 percent because multiple abnormal conditions may be reported for a single birth.

Source: South Dakota Department of Health, Office of Health Statistics

Congenital Anomalies

Table 33, below, displays congenital anomalies for the past five years. In 2015 the most prevalent congenital anomaly was

Chromosomal disorder. In 2014 the primary congenital anomaly was Down syndrome (Trisomy 21).

Table 33

South Dakota Resident Births with Reported Congenital Anomalies and Year of Birth, 2011-2015

	Year of Birth									
	2011		2012		2013		2014		2015	
	Num	%	Num	%	Num	%	Num	%	Num	%
Chromosomal disorder	15	0.1	16	0.1	14	0.1	13	0.1	20	0.2
Other craniofacial abnormality	13	0.1	11	0.1	22	0.2	16	0.1	13	0.1
Cleft lip with or without a cleft palate	12	0.1	10	0.1	16	0.1	14	0.1	11	0.1
Down syndrome (Trisomy 21)*	17	0.1	13	0.1	15	0.1	17	0.1	8	0.1
Cyanotic congenital heart disease	13	0.1	5	0.0	13	0.1	16	0.1	8	0.1
Hypospadias	11	0.1	12	0.1	16	0.1	10	0.1	6	0.0
Limb reduction defect	1	0.0	4	0.0	1	0.0	4	0.0	6	0.0
Meningomyelocele/Spina bifida*	3	0.0	4	0.0	1	0.0	3	0.0	5	0.0
Congenital diaphragmatic hernia	2	0.0	0	0.0	4	0.0	5	0.0	5	0.0
Gastroschisis	5	0.0	9	0.1	5	0.0	4	0.0	5	0.0
Cleft palate alone	12	0.1	6	0.0	9	0.1	13	0.1	2	0.0
Omphalacele	1	0.0	0	0.0	1	0.0	2	0.0	2	0.0
Anencephaly*	2	0.0	0	0.0	1	0.0	2	0.0	0	0.0
At least one anomaly	91	0.8	85	0.7	98	0.8	97	0.8	79	0.6
None of the above	11,740	99.2	12,004	99.3	12,139	99.2	12,178	99.2	12,236	99.4

Note: *According to the NCHS, Down syndrome, meningomyelocele/spina bifida, and anencephaly are comparable with data prior to 2006.

Percentages may sum to more than 100 percent because multiple congenital anomalies may be reported for a single birth.

Source: South Dakota Department of Health, Office of Health Statistics

