

# Natality

## An Overview: 2013

Total Resident Live Births	12,243
Crude Birth Rate per 1,000 Population	14.5
Median Live Birth Weight (Grams)	3,390
Low Weight Births (Less than 2,500 grams)	770
Low Birth Weight Rate per 1,000 Live Births	62.9
Mean Age of Mother	28
No Prenatal Care	0.6%

Resident births increased by 1.3 percent from 2012 when there were 12,092 births. In 2013, 50.6 percent of the babies born were male and 49.4 percent were female. Racially, white births were 50.7 percent male and 49.3 percent female; American Indian births were 49.7 percent male, 50.3 percent female.

The low birth weight rate per 1,000 live births increased from 62.1 in 2012 to 62.9 in 2013. This was a 1.3 percent increase from the 2012 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 12,243 births to South Dakota residents in 2013, for a crude birth rate of 14.5 per 1,000 South Dakota resident population.

Table 8, below, displays the live births and crude birth rates for the United States and South Dakota for the past 14 years. South Dakota's birth rate remains above the national average as shown in this table.

**Table 8**  
**Resident Live Births and Crude Birth Rates,**  
**South Dakota and United States, 2000-2013**

Year	United States		South Dakota	
	Number	Crude Rate	Number	Crude Rate
2013	*3,957,577	*12.5	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. 2013 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. Race is no longer allocated as it had been since the 2000 Census started allowing multiple races to be reported. 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 9, below, shows the number and percent of resident births by mother's race since 2004. In 2013, the number of births to whites increased by 0.4 percent, and the number of births for American Indians stayed the same. The number of births to two or more races decreased by 8.5 percent and the number of births to other races increased by 16.3 percent.

**Table 9**  
**South Dakota Resident Live Births by Mother's Race, 2004-2013**

Births		White		American Indian		Two or More Races		Other		Not Stated	
Year	Num	Num	%	Num	%	Num	%	Num	%	Num	%
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	-
2005	11,466	8,974	78.4	1,741	15.2	482	4.2	254	2.2	15	-
2004	11,339	8,924	78.7	1,684	14.9	491	4.3	238	2.1	2	-

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

## Multiple Births

Table 10, 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 10**  
**South Dakota Resident Multiple Live Births, 2004-2013**

Year of Birth	Twins	Triplets	Quadruplets or more
2013	178	4	1
2012	174	2	0
2011	166	2	0
2010	177	6	0
2009	144	4	0
2008	204	3	0
2007	173	7	0
2006	188	2	0
2005	143	3	1
2004	182	5	0

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

## Marital Status

In 2013, the majority of women who gave birth, 61.9 percent, were married as displayed in Table 11 below. When looking at the data by race, American

Indian women have consistently had the highest percent of births out of wedlock with 84.5 percent in 2013.

**Table 11**  
**South Dakota Resident Births Out of Wedlock by Year of Birth and Race, 2004-2013**

Year	All Races		White		American Indian		Two or More Races		Other	
	Num	%	Num	%	Num	%	Num	%	Num	%
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
2005	4,153	36.2	2,337	26.0	1,444	82.9	296	61.4	73	28.7
2004	3,971	35.0	2,237	25.1	1,359	80.7	302	61.5	72	30.3

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 12, below, indicates that in 2013 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 770 low weight births or 6.3 percent of all South Dakota resident live births in 2013. When looking at race, 5.9 percent of

white babies and 6.8 percent of American Indian babies were low birth weight in 2013. In comparison, in 2012 white and American Indian low birth weight births were 5.7 and 7.8 percent, respectively. Table 12a, on the next page, compares the birth weights of infants for the past 10 years.

**Table 12**  
**South Dakota Resident Live Births by Birth Weight and Mother's Race, 2013**

Birth Weight (in Grams)	Total		Race of Mother							
			White		American Indian		Two or More Races		Other	
	Num	%	Num	%	Num	%	Num	%	Num	%
<2,500	770	6.3	539	5.9	132	6.8	23	6.3	46	8.5
2,500-2,999	1,864	15.2	1,313	14.4	309	15.8	64	17.5	133	24.6
3,000-3,499	4,558	37.2	3,457	37.8	680	34.8	130	35.6	209	38.6
3,500-3,999	3,757	30.7	2,871	31.4	581	29.7	116	31.8	126	23.3
4,000-4,499	1,126	9.2	852	9.3	207	10.6	28	7.7	23	4.3
4,500+	163	1.3	107	1.2	45	2.3	4	1.1	4	0.7
Not Stated	5	-	3	-	2	-	0	-	0	-
<b>Total</b>	<b>12,243</b>	<b>100</b>	<b>9,142</b>	<b>100</b>	<b>1,956</b>	<b>100</b>	<b>365</b>	<b>100</b>	<b>541</b>	<b>100</b>
Median birth weight in grams	3,390		3,402		3,402		3,360		3,232	
Mean birth weight in grams	3,356		3,366		3,370		3,343		3,189	
Modal birth weight in grams	3,260		3,600		3,260		2,892		3,550	

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 12a**  
**South Dakota Resident Births by Birth Weight and Year of Birth, 2004-2013**

Year	Total Births		< 2500 Grams		2500 + Grams		Not Stated	
	Num	%	Num	%	Num	%	Num	%
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	-
2005	11,466	100	758	6.6	10,705	93.4	3	-
2004	11,339	100	787	6.9	10,547	93.1	5	-

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

Table 13, below, compares the low birth weight babies by race of mother from 2004 to 2013. In 2013, there were 539 or 5.9 percent low birth weight babies born to white women. For American Indian women there were 132 or 6.8 percent.

In 2013, there was a 3.5 percent increase in white low birth weight babies and a 12.8 percent decrease in low birth weight babies among American Indians.

**Table 13**  
**South Dakota Resident Low Birth Weight Births by Race of Mother, 2004-2013**

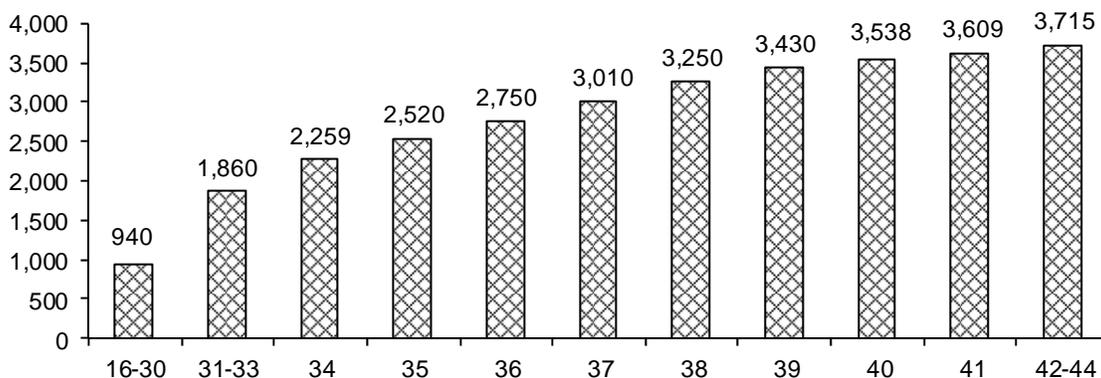
Year	Mother's Race				
	Total	White	American Indian	Two or More Races	Other
2013	6.3%	5.9%	6.8%	6.3%	8.5%
2012	6.2%	5.7%	7.8%	6.5%	9.5%
2011	6.3%	5.8%	6.8%	7.9%	11.5%
2010	6.9%	6.9%	6.1%	6.7%	9.9%
2009	5.9%	5.6%	5.9%	6.2%	12.0%
2008	6.5%	6.2%	6.7%	7.0%	11.2%
2007	7.0%	6.6%	7.5%	10.0%	10.3%
2006	7.0%	6.8%	7.8%	7.0%	8.6%
2005	6.6%	6.5%	6.8%	6.4%	8.3%
2004	6.9%	6.7%	7.7%	9.4%	7.2%

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, 2009-2013**



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 2013, the majority of births, 57.9 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, 2004-2013**

Year	Total		<35		35-36		37-39		40+		Not Stated	
	Num	%	Num	%	Num	%	Num	%	Num	%	Num	%
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	-
2005	11,466	100	366	3.2	631	5.5	6,241	54.7	4,176	36.6	52	-
2004	11,339	100	387	3.4	662	5.9	6,037	53.3	4,230	37.4	23	-

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 eight years. In 2013, 22.5 percent stated they

smoked three months prior to pregnancy, and 15.1 percent smoked anytime during their pregnancy.

**Table 15**  
**South Dakota Resident Live Births by Cigarette Smoking Status, 2006-2013**

Year	Mother's Smoking Status				
	Three Months Prior to Pregnancy	First Trimester	Second Trimester	Third Trimester	Anytime During Pregnancy
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, below, displays the percent of mothers who smoked prior to pregnancy for the past eight years by their smoking status during pregnancy. The majority of women

stated they never quit smoking during their pregnancy, however, this decreased from 50.7 percent in 2006 to 43.5 percent in 2013.

**Table 16**  
**South Dakota Resident Births to Mothers Who Smoked Prior to Pregnancy by Smoking Status During Pregnancy, 2006-2013**

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
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 2013, at 34.2 percent. Women less than 20 years of age comprised 6.7 percent of the total resident births.

The median ages for white, American Indian, and two or more races were 28, 24, and 25 years of age, respectively. The modal ages for the same race groups were 27, 20, and 28 years of age respectively.

**Table 17**  
**South Dakota Resident Live Births by Mother's Age and Race, 2013**

Age of Mother	Total		Race of Mother							
			White		American Indian		Two or More Races		Other	
	Num	%	Num	%	Num	%	Num	%	Num	%
Less than 18	224	1.8	87	1.0	103	5.3	19	5.2	7	1.3
18-19 Years	598	4.9	310	3.4	220	11.2	34	9.3	18	3.3
20-24 Years	2,885	23.6	1,850	20.2	717	36.7	120	32.9	118	21.8
25-29 Years	4,184	34.2	3,300	36.1	515	26.3	119	32.6	187	34.6
30-34 Years	3,027	24.7	2,534	27.7	261	13.3	52	14.2	143	26.4
35-39 Years	1,123	9.2	900	9.8	125	6.4	19	5.2	53	9.8
40 & over	202	1.6	161	1.8	15	0.8	2	0.5	15	2.8
<b>Total</b>	<b>12,243</b>	<b>100</b>	<b>9,142</b>	<b>100</b>	<b>1,956</b>	<b>100</b>	<b>365</b>	<b>100</b>	<b>541</b>	<b>100</b>

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 17a, below, displays the mother's age for births in the past 10 years. The majority

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

**Table 17a**  
**South Dakota Resident Live Births by Mother's Age and Year of Birth, 2004-2013**

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	%		
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
2005	11,466	100	346	3.0	757	6.6	3,232	28.2	3,603	31.4	2,314	20.2	997	8.7	217	1.9
2004	11,339	100	311	2.7	823	7.3	3,198	28.2	3,446	30.4	2,399	21.2	961	8.5	201	1.8

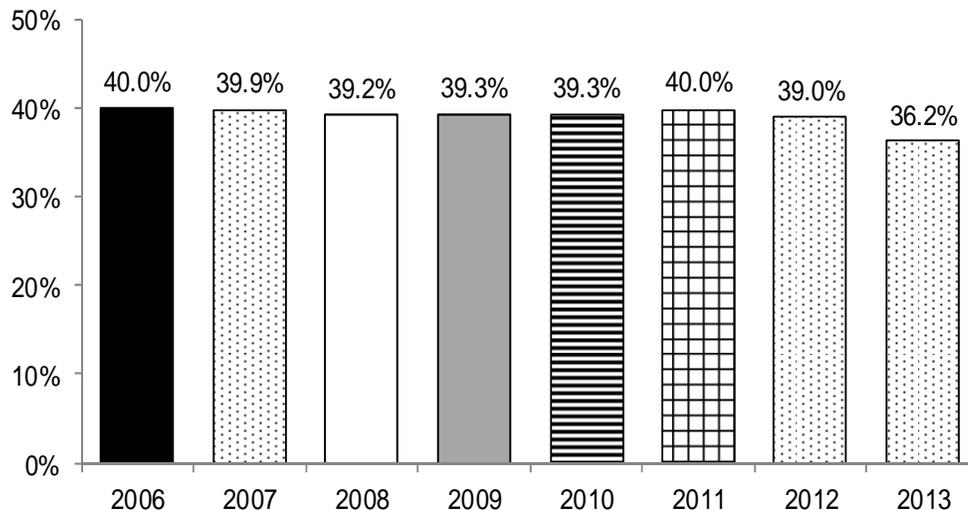
Note: Failure of ages to add to total births is due to mother's age not stated.

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 eight years. In 2013, 36.2 percent of mothers were on WIC during their pregnancy.

**Figure 3**  
**South Dakota Resident Live Births by WIC Status, 2006-2013**

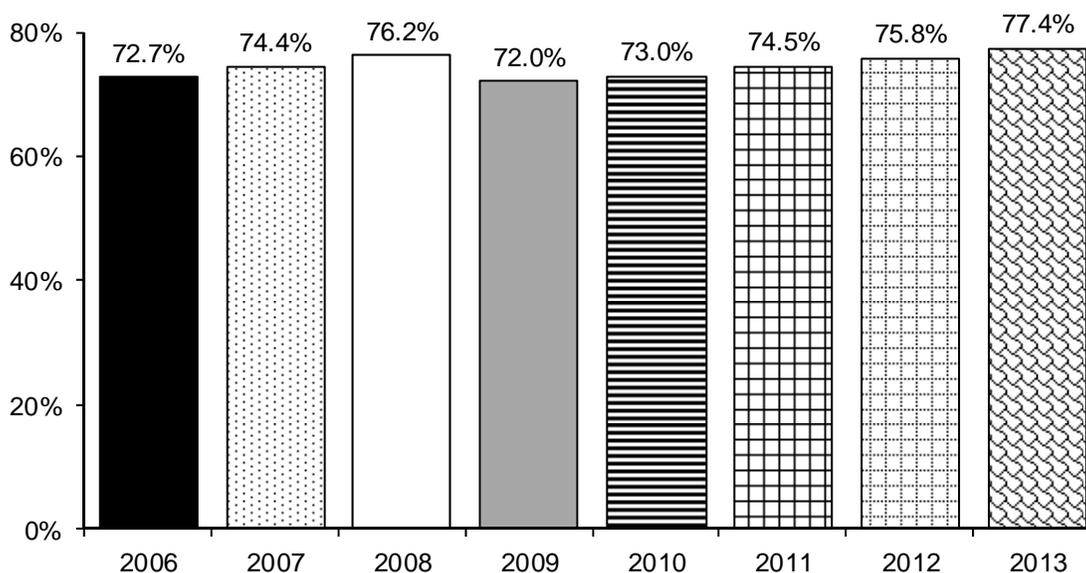


Source: South Dakota Department of Health, Office of Health Statistics

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

stated they were breastfeeding at time of discharge increased from 75.8 percent in 2012 to 77.4 percent in 2013.

**Figure 4**  
**South Dakota Resident Live Births by Breastfeeding Status at Time of Discharge, 2006-2013**



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

Table 18, below, displays South Dakota resident teen births (15 to 17 years old) by race from 2004 to 2013. In 2013, the teen birth rate was 13.2, a decrease from 16.4 in

2012. When looking at race, the white teen birth rate was 6.5 compared to a teen birth rate of 43.3 for American Indians in 2013.

**Table 18**  
**South Dakota Resident Teen Births and Rates by Year and Mother's Race, 2004-2013**

Year	Total		White		American Indian		Two or More Races		Other	
	Num	Rate	Num	Rate	Num	Rate	Num	Rate	Num	Rate
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
2005	337	19.4	158	11.1	141	58.3	34	88.3	4	14.0
2004	299	17.1	141	9.8	129	53.7	23	58.2	6	23.4

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 19, below, shows the number of South Dakota resident live births by when the mothers started prenatal care in 2013. Seventy-two percent of mothers started care in the first trimester – 78.4 percent of white mothers and 50.1 percent of American

Indian mothers. Overall, less than 1 percent failed to obtain prenatal care at all (0.3 percent of white mothers and 2.4 percent of American Indian mothers).

**Table 19**  
**South Dakota Resident Live Births by Trimester Prenatal Care Began and Mother's Race, 2013**

Trimester Prenatal Care Began	Total		Race of Mother							
			White		American Indian		Two or More Races		Other	
	Num	%	Num	%	Num	%	Num	%	Num	%
First	8,645	72.0	7,058	78.4	947	50.1	222	62.5	286	54.6
Second	2,676	22.3	1,633	18.1	668	35.3	109	30.7	187	35.7
Third	609	5.1	285	3.2	231	12.2	23	6.5	48	9.2
None	73	0.6	23	0.3	45	2.4	1	0.3	3	0.6
Not Stated	240	-	143	-	65	-	10	-	17	-
<b>Total</b>	<b>12,243</b>	<b>100</b>	<b>9,142</b>	<b>100</b>	<b>1,956</b>	<b>100</b>	<b>365</b>	<b>100</b>	<b>541</b>	<b>100</b>

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 19a, on the following page, shows the number of mothers who began prenatal care by trimester for the past eight years.

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

**Table 19a**  
**South Dakota Resident Live Births by Trimester Prenatal Care Began, 2006-2013**

Year	Total		First		Second		Third		No Prenatal Care		Not Stated	
	Num	%	Num	%	Num	%	Num	%	Num	%	Num	%
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 20, below, displays the number of births by payment type for the past five years. In 2013 the majority of births, 56.2

percent, were paid by private insurance. The second highest payment type was Medicaid with 33.5 percent.

**Table 20**  
**South Dakota Resident Live Births by Payment Type, 2009-2013**

Payment Type	Year									
	2009		2010		2011		2012		2013	
	Num	%								
Private Insurance	6,551	55.2	6,455	55.1	6,593	56.0	6,787	56.4	6,850	56.2
Medicaid	4,225	35.6	4,244	36.2	4,164	35.4	4,072	33.8	4,078	33.5
Indian Health Service	318	2.7	279	2.4	336	2.9	389	3.2	382	3.1
Self-Pay	281	2.4	289	2.5	256	2.2	299	2.5	348	2.9
Champus/Tricare	347	2.9	353	3.0	318	2.7	353	2.9	334	2.7
Other Government	43	0.4	17	0.1	22	0.2	29	0.2	113	0.9
Other	96	0.8	79	0.7	74	0.6	108	0.9	80	0.7
Not Stated	69	-	79	-	71	-	55	-	58	-

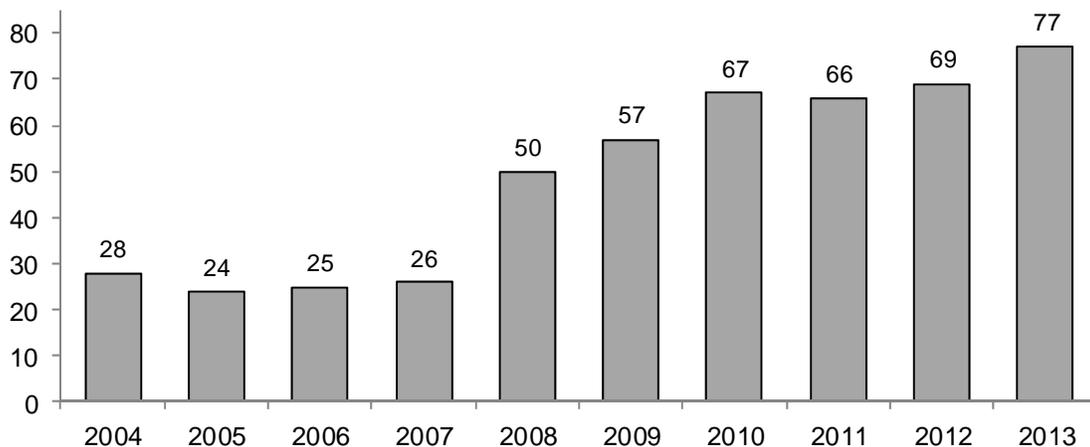
Source: South Dakota Department of Health, Office of Health Statistics

Home Births

Figure 5, below, displays the number of home births for South Dakota residents in the past 10 years. In 2013, home births

constituted less than one percent (0.6 percent) of South Dakota resident births.

**Figure 5**  
**South Dakota Resident Home Births, 2004-2013**



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

### Attendant at Birth

Table 21, 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 21  
South Dakota Resident Live Births by Attendant at Birth, 2004-2013**

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	%
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	-
2005	11,466	100	10,243	89.4	743	6.5	404	3.5	35	0.3	0	0.0	38	0.3	3	-
2004	11,339	100	10,032	88.5	734	6.5	474	4.2	37	0.3	0	0.0	59	0.5	3	-

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 22, below, displays resident births by infections present and/or treated during mother's pregnancy for the past five years. The majority of births, 95.8 percent in 2013, had no infections present or treated.

For all five years, chlamydia was the main infection present and/or treated during pregnancy. In 2013, chlamydia infections were present or treated in 2.5 percent of births.

**Table 22  
South Dakota Resident Live Births by Infections Present and/or Treated During This Pregnancy and Year of Birth, 2009-2013**

	Year of Birth									
	2009		2010		2011		2012		2013	
	Num	%	Num	%	Num	%	Num	%	Num	%
Chlamydia	295	2.5	267	2.3	280	2.4	265	2.2	310	2.5
Genital herpes*	110	0.9	106	0.9	87	0.7	126	1.0	156	1.3
Gonorrhea	33	0.3	18	0.2	22	0.2	45	0.4	38	0.3
Hepatitis C	20	0.2	12	0.1	21	0.2	19	0.2	19	0.2
Hepatitis B	15	0.1	10	0.1	18	0.2	15	0.1	15	0.1
Rubella	4	0.0	3	0.0	5	0.0	3	0.0	5	0.0
Syphilis	0	0.0	2	0.0	1	0.0	3	0.0	4	0.0
Cytomegalovirus (CMV)	2	0.0	2	0.0	1	0.0	1	0.0	2	0.0
Toxoplasmosis	1	0.0	5	0.0	0	0.0	0	0.0	0	0.0
No infections	11,446	96.2	11,379	96.6	11,414	96.5	11,641	96.3	11,707	95.8

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 23, 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 23**  
**South Dakota Resident Live Births by Mother's Medical History Factors**  
**and Year of Birth, 2009-2013**

	Year of Birth									
	2009		2010		2011		2012		2013	
	Num	%	Num	%	Num	%	Num	%	Num	%
Mother had a previous cesarean delivery	1,545	13.0	1,564	13.3	1,589	13.4	1,566	13.0	1,673	13.7
Diabetes, gestational	525	4.4	605	5.1	688	5.8	655	5.4	775	6.3
Hypertension, gestational	528	4.4	632	5.4	567	4.8	523	4.3	493	4.0
Other previous poor pregnancy outcomes	379	3.2	473	4.0	532	4.5	497	4.1	438	3.6
Previous preterm births	382	3.2	396	3.4	440	3.7	389	3.2	370	3.0
Fertility-enhancing drugs, artificial insemination or intrauterine insemination	117	1.0	116	1.0	104	0.9	130	1.1	143	1.2
Hypertension, pre-pregnancy*	138	1.2	166	1.4	142	1.2	127	1.1	169	1.4
Diabetes, pre-existing	91	0.8	91	0.8	94	0.8	97	0.8	109	0.9
Assisted reproductive technology	36	0.3	55	0.5	60	0.5	47	0.4	53	0.4
Hypertension, eclampsia	22	0.2	18	0.2	22	0.2	21	0.2	37	0.3
Fertility treatment, unspecified	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0
No medical risk factors for this pregnancy	8,763	73.5	8,369	71.0	8,303	70.2	8,745	72.4	8,727	71.4

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 2013, 1.6 percent of South Dakota resident infants received five minute Apgar scores less than seven.

Considering race, 1.7 percent of white infants, 1.3 percent of American Indian infants, and 0.5 percent of infants with two or more races received a five-minute Apgar score less than seven in 2013.

## Characteristics of Labor and Delivery

Table 24, 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 2013 were epidural or spinal anesthesia with 52.5 percent,

augmentation of labor with 28.1 percent, antibiotics during labor with 27.8 percent, and induction of labor with 26.5 percent. Overall characteristics of labor and delivery were present in 78.6 percent of resident births in 2013.

**Table 24**  
**South Dakota Resident Live Births by**  
**Characteristics of Labor and Delivery and Year of Birth, 2009-2013**

	Year of Birth									
	2009		2010		2011		2012		2013	
	Num	%	Num	%	Num	%	Num	%	Num	%
Epidural or spinal anesthesia	6,739	56.5	6,205	52.6	6,174	52.2	6,348	52.5	6,429	52.5
Augmentation of labor	3,289	27.6	3,353	28.4	3,241	27.4	3,248	26.9	3,435	28.1
Antibiotics during labor	3,169	26.6	3,318	28.1	3,241	27.4	3,291	27.2	3,403	27.8
Induction of labor*	3,720	31.2	3,691	31.3	3,518	29.7	3,230	26.7	3,240	26.5
Meconium staining of the amniotic fluid	929	7.8	863	7.3	856	7.2	937	7.7	1,020	8.3
Fetal intolerance	1,012	8.5	959	8.1	777	6.6	775	6.4	615	5.0
Non-vertex presentation	450	3.8	473	4.0	475	4.0	561	4.6	488	4.0
Steroids (glucocorticoids) for fetal lung maturation received by the mother prior to delivery	179	1.5	205	1.7	153	1.3	165	1.4	204	1.7
Chorioamnionitis diagnosed during labor	72	0.6	46	0.4	56	0.5	93	0.8	113	0.9
None of the above	2,252	18.9	2,342	19.9	2,487	21.0	2,516	20.8	2,623	21.4

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

Tocolysis was the top obstetric procedure used for all years.

**Table 25**  
**South Dakota Resident Live Births by Obstetric Procedures and Year of Birth, 2009-2013**

	Year of Birth									
	2009		2010		2011		2012		2013	
	Num	%	Num	%	Num	%	Num	%	Num	%
Tocolysis*	228	1.9	296	2.5	218	1.8	195	1.6	172	1.4
Cervical cerclage	42	0.4	34	0.3	44	0.4	35	0.3	51	0.4
External cephalic version-successful	26	0.2	29	0.2	21	0.2	24	0.2	25	0.2
External cephalic version-failed	32	0.3	37	0.3	31	0.3	35	0.3	24	0.2
No obstetric procedures	11,594	97.3	11,402	96.8	11,519	97.4	11,815	97.7	11,961	97.8

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 26, 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

2013 was precipitous labor (< 3 hours). In 2013, 10.1 percent of births had a complication associated with the onset of labor.

**Table 26**  
**South Dakota Resident Live Births by Onset of Labor and Year of Birth, 2009-2013**

	Year of Birth									
	2009		2010		2011		2012		2013	
	Num	%	Num	%	Num	%	Num	%	Num	%
Precipitous labor (< 3 hours)*	365	3.1	368	3.1	509	4.3	593	4.9	613	5.0
Prolonged labor (20 + hours)	260	2.2	208	1.8	251	2.1	288	2.4	359	2.9
Premature rupture of membranes	579	4.9	467	4.0	310	2.6	296	2.4	300	2.5
None of the above	10,738	90.1	10,784	91.5	10,776	91.1	10,934	90.4	10,998	89.9

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 27, below, illustrates the maternal complications for the past five years. The highest maternal complication in 2013 was third or fourth degree perineal

laceration with 1.0 percent of births. Overall, maternal complications were present in 1.8 percent of resident births in 2013.

**Table 27**  
**South Dakota Resident Live Births by Maternal Complications and Year of Birth, 2009-2013**

	Year of Birth									
	2009		2010		2011		2012		2013	
	Num	%	Num	%	Num	%	Num	%	Num	%
Third or fourth degree perineal laceration	215	1.8	189	1.6	158	1.3	139	1.1	128	1.0
Maternal transfusion	51	0.4	58	0.5	48	0.4	44	0.4	58	0.5
Unplanned operating procedure following delivery	34	0.3	33	0.3	28	0.2	35	0.3	31	0.3
Admitted to intensive care	17	0.1	15	0.1	9	0.1	7	0.1	11	0.1
Unplanned hysterectomy	2	0.0	5	0.0	2	0.0	4	0.0	5	0.0
Ruptured uterus	6	0.1	6	0.1	4	0.0	5	0.0	4	0.0
None of the above	11,602	97.4	11,509	97.6	11,600	98.0	11,872	98.2	12,024	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 28, 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 28**  
**South Dakota Resident Births by Method of Delivery and Year of Birth, 2009-2013**

	2009		2010		2011		2012		2013	
	Num	%								
Vaginal (Total)	8,789	73.7	8,660	73.4	8,852	74.8	9,026	74.6	9,115	74.5
Vaginal with no previous C-section	8,559	71.8	8,404	71.3	8,584	72.5	8,752	72.4	8,837	72.2
Vaginal after previous C-section	229	1.9	249	2.1	265	2.2	269	2.2	267	2.2
Vaginal (unknown previous types)	1	0.0	7	0.1	3	0.0	5	0.0	11	0.1
C-Section (Total)	3,139	26.3	3,133	26.6	2,982	25.2	3,066	25.4	3,128	25.5
Primary C-section	1,823	15.3	1,818	15.4	1,658	14.0	1,769	14.6	1,722	14.1
Repeat C-section	1,316	11.0	1,315	11.2	1,324	11.2	1,297	10.7	1,406	11.5
Not Stated	2	-	2	-	0	-	0	-	0	-

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

Table 29, below, displays the method of delivery by fetal presentation. The majority of births, 94.6 percent, were cephalic while 3.5 percent were breech.

When looking at primary C-section births, 18.8 percent were breech while 76.9 percent were cephalic.

**Table 29**  
**South Dakota Resident Births by Method of Delivery and Fetal Presentation, 2013**

	Total		Cephalic		Breech		Other		Not Stated	
	Num	%	Num	%	Num	%	Num	%	Num	%
<b>Total</b>	<b>12,243</b>	<b>100</b>	<b>11,587</b>	<b>94.7</b>	<b>434</b>	<b>3.5</b>	<b>216</b>	<b>1.8</b>	<b>6</b>	<b>-</b>
Vaginal (Total)	9,115	100	8,981	98.6	35	0.4	94	1.0	5	-
Vaginal with no previous C-section	8,837	100	8,712	98.6	33	0.4	89	1.0	3	-
Vaginal after previous C-section	267	100	260	97.4	2	0.7	5	1.9	0	-
Vaginal (unknown previous types)	11	100	9	100	0	0.0	0	0.0	2	-
C-Section (Total)	3,128	100	2,606	83.3	399	12.8	122	3.9	1	-
Primary C-section	1,722	100	1,324	76.9	323	18.8	74	4.3	1	-
Repeat C-section	1,406	100	1,282	91.2	76	5.4	48	3.4	0	-

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

Abnormal Conditions of the Newborn

Table 30, on the next page, shows abnormal conditions in newborns for the past five years. In 2013, 12.4 percent of South Dakota resident live birth certificates reported abnormal conditions of the

newborn. Overall, NICU admission was the most frequently reported condition in 2013 followed by assisted ventilation required immediately following delivery.

**Table 30**

**South Dakota Resident Live Births by Abnormal Conditions of Newborn and Year of Birth, 2009-2013**

	Year of Birth									
	2009		2010		2011		2012		2013	
	Num	%	Num	%	Num	%	Num	%	Num	%
NICU admission	978	8.2	1,045	8.9	1,010	8.5	1,130	9.3	1,189	9.7
Assisted ventilation required immediately following delivery	514	4.3	539	4.6	478	4.0	593	4.9	770	6.3
Antibiotics received by the newborn for suspected neonatal sepsis	530	4.4	518	4.4	526	4.4	639	5.3	644	5.3
Assisted ventilation required for more than 6 hrs	206	1.7	253	2.1	202	1.7	238	2.0	290	2.4
Newborn given surfactant replacement therapy	78	0.7	108	0.9	81	0.7	90	0.7	91	0.7
Significant birth injury	22	0.2	24	0.2	14	0.1	21	0.2	15	0.1
Seizure or serious neurologic dysfunction	3	0.0	8	0.1	5	0.0	9	0.1	9	0.1
None of the above	10,670	89.5	10,490	89.0	10,596	89.6	10,697	88.5	10,725	87.6

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 31, below, displays congenital anomalies for the past five years. In 2013 the most prevalent congenital anomaly was

other craniofacial abnormality. In 2012 the primary congenital anomaly was chromosomal disorder.

**Table 31**

**South Dakota Resident Births with Reported Congenital Anomalies and Year of Birth, 2009-2013**

	Year of Birth									
	2009		2010		2011		2012		2013	
	Num	%	Num	%	Num	%	Num	%	Num	%
Other craniofacial abnormality	12	0.1	7	0.1	13	0.1	11	0.1	22	0.2
Cleft lip with or without a cleft palate	17	0.1	19	0.2	12	0.1	10	0.1	16	0.1
Hypospadias	10	0.1	12	0.1	11	0.1	12	0.1	16	0.1
Down syndrome (Trisomy 21)*	14	0.1	16	0.1	17	0.1	13	0.1	15	0.1
Chromosomal disorder	16	0.1	16	0.1	15	0.1	16	0.1	14	0.1
Cyanotic congenital heart disease	12	0.1	3	0.0	13	0.1	5	0.0	13	0.1
Cleft palate alone	13	0.1	11	0.1	12	0.1	6	0.0	9	0.1
Gastroschisis	6	0.1	6	0.1	5	0.0	9	0.1	5	0.0
Congenital diaphragmatic hernia	3	0.0	2	0.0	2	0.0	0	0.0	4	0.0
Meningomyelocele/Spina bifida*	4	0.0	3	0.0	3	0.0	4	0.0	1	0.0
Limb reduction defect	6	0.1	5	0.0	1	0.0	4	0.0	1	0.0
Anencephaly*	2	0.0	2	0.0	2	0.0	0	0.0	1	0.0
Omphalacele	1	0.0	3	0.0	1	0.0	0	0.0	1	0.0
At least one anomaly	97	0.8	91	0.8	91	0.8	85	0.7	98	0.8
None of the above	11,830	99.2	11,699	99.2	11,740	99.2	12,004	99.3	12,139	99.2

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

