

# Natality

## An Overview: 2008

Total Resident Live Births	12,074
Crude Birth Rate per 1,000 Population	16.0
Median Live Birth Weight (Grams)	3,360
Low Weight Births (Less than 2,500 grams)	783
Low Birth Weight Rate per 1,000 Live Births	64.9
Mean Age of Mother	27
No Prenatal Care (Percentage of Total Single Live Births)	0.8%

Starting in 2006, the Department of Health, Office of Data, Statistics, and Vital Records 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 12,074 births to South Dakota residents in 2008, for a crude birth rate of 16.0 per 1,000 South Dakota resident population.

Resident births decreased by 1.5 percent from 2007 when there were 12,253 births. In 2008, 51.5 percent of the babies born were male and 48.5 percent were female. Racially, white births were 51.6 percent male and 48.4 percent female; American Indian births were 50.5 percent male, 49.5 percent female.

The low birth weight rate per 1,000 live births decreased from 69.6 in 2007 to 64.9 in 2008. This was a 6.8 percent decrease from the 2007 low birth weight rate.

Table 8, below and Figure 2, page 22, display the live births and crude birth rates for the United States and South Dakota for the past 20 years. As the illustrations indicate, South Dakota's birth rate remains above the national average.

**Table 8**  
**Resident Live Births and Crude Birth Rates, South Dakota and United States, 1989-2008**

Year	United States		South Dakota	
	Number	Crude Rate	Number	Crude Rate
2008	*4,247,000	*13.9	12,074	16.0
2007	*4,317,119	*14.3	12,253	16.2
2006	4,265,555	14.2	11,914	15.8
2005	4,138,349	14.0	11,466	15.2
2004	4,112,052	14.0	11,339	15.0
2003	4,089,950	14.1	11,022	14.6
2002	4,021,726	13.9	10,698	14.2
2001	4,025,933	14.5	10,475	13.8
2000	4,058,814	14.7	10,346	13.7
1999	3,959,417	14.5	10,516	15.1
1998	3,941,553	14.6	10,281	14.8
1997	3,880,894	14.5	10,168	14.6
1996	3,891,494	14.7	10,469	15.0
1995	3,899,589	14.8	10,470	15.0
1994	3,952,767	15.2	10,504	15.1
1993	4,000,240	15.5	10,718	15.4
1992	4,065,014	15.9	11,007	15.8
1991	4,110,907	16.3	10,930	15.7
1990	4,158,212	16.7	10,987	15.8
1989	4,040,958	16.4	11,072	15.5

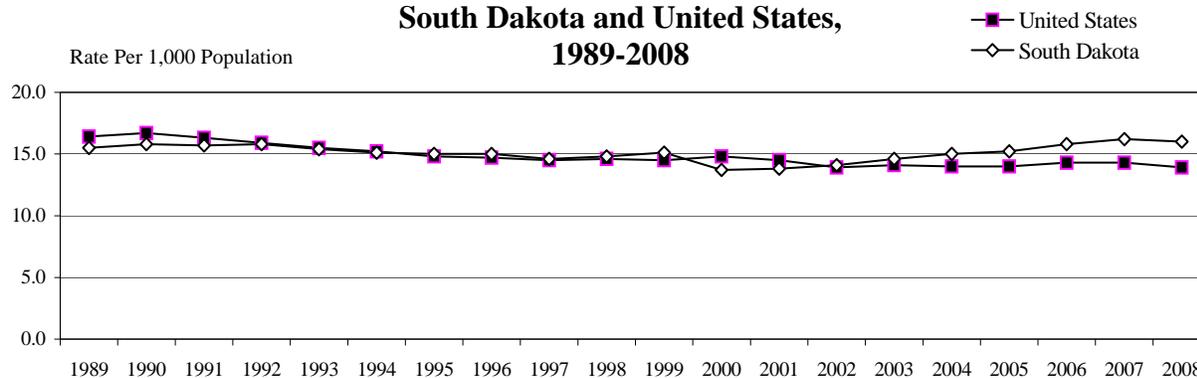
Note: \*U.S 2007 and 2008 data are provisional.

The decrease in the South Dakota crude rate in 2000 is at least partially due to the change in population from the 2000 census. Crude birth rates are per 1,000 population.

Source: National Center for Health Statistics

South Dakota Department of Health, Office of Data, Statistics, and Vital Records

**Figure 2**  
**Resident Live Birth Rates,**  
**South Dakota and United States,**  
**1989-2008**



Note: 2007 and 2008 U.S. data are provisional.

Source: South Dakota Department of Health, Office of Data, Statistics, and Vital Records

### Births by Race

Table 9 shows the number and percent of resident births by mother's race since 1989. In 2008, the percentage of births to whites remained unchanged, while the percentage of births for American Indians decreased by 0.3 percent. The percentage of births to other races increased by 0.2 percent.

In 2003, the South Dakota Department of Health (SDDOH) began utilizing the multiple race data on the birth certificate for the mother and father. Therefore, in order to assign a single race to each mother, the SDDOH allocated multiple races into one single race. The methods used for this allocation can be found on page 229. Consequently, it should be noted that any changes illustrated in Table 9 beginning in 2003 in the racial breakdown of mothers should be interpreted with this reporting change in mind.

Table 10, on the next page, shows a more detailed racial breakdown since these changes were implemented in 2003. These specific racial groups were not all possible prior to 2003.

**Table 9**  
**South Dakota Resident Live Births by Mother's Race,**  
**1989-2008**

Year	Births		White		American Indian		Other	
	Num	Percent	Num	Percent	Num	Percent	Num	Percent
2008	12,074		9,432	78.1	2,222	18.4	402	3.3
2007	12,253		9,571	78.1	2,286	18.7	380	3.1
2006	11,914		9,371	78.7	2,160	18.1	365	3.1
2005	11,466		8,974	78.3	2,155	18.8	322	2.8
2004	11,339		8,924	78.7	2,100	18.5	313	2.8
2003	11,022		8,642	78.4	2,091	19.0	289	2.6
2002	10,698		8,648	80.8	1,805	16.9	244	2.3
2001	10,475		8,469	80.8	1,770	17.0	233	2.2
2000	10,346		8,416	81.3	1,682	16.3	245	2.4
1999	10,516		8,658	82.3	1,665	15.8	192	1.8
1998	10,281		8,383	81.5	1,716	16.7	181	1.8
1997	10,168		8,412	82.7	1,538	15.1	218	2.1
1996	10,469		8,655	82.7	1,632	15.6	181	1.7
1995	10,470		8,684	82.9	1,564	14.9	221	2.1
1994	10,504		8,771	83.5	1,533	14.6	197	1.9
1993	10,718		8,822	82.3	1,720	16.0	173	1.6
1992	11,007		9,090	82.6	1,739	15.8	159	1.4
1991	10,930		9,068	83.0	1,665	15.2	132	1.2
1990	10,987		9,165	83.4	1,668	15.2	154	1.4
1989	11,072		9,163	82.8	1,753	15.8	156	1.4

Note: Failure of the races to add to the total is due to unknown races contained in the total birth column.

Source: South Dakota Department of Health, Office of Data, Statistics, and Vital Records

In 2008, 78.1 percent of South Dakota resident births were white, 18.4 percent were American Indian, 1.8 percent were black, and 1.4 percent were Asian.

**Table 10**  
**South Dakota Resident Live Births by Mother's Race, 2003-2008**

Births		White		American Indian		Black		Asian		Other	
Year	Num	Num	Percent	Num	Percent	Num	Percent	Num	Percent	Num	Percent
2008	12,074	9,432	78.1	2,222	18.4	223	1.8	170	1.4	9	0.1
2007	12,253	9,571	78.1	2,286	18.7	219	1.8	148	1.2	13	0.1
2006	11,914	9,371	78.7	2,160	18.1	212	1.8	147	1.2	6	0.1
2005	11,466	8,974	78.3	2,155	18.8	153	1.3	116	1.0	42	0.4
2004	11,339	8,924	78.7	2,100	18.5	154	1.4	142	1.3	15	0.1
2003	11,022	8,642	78.4	2,091	19.0	131	1.2	134	1.2	15	0.1

Note: Failure of the races to add to the total is due to unknown races contained in the total birth column.

Source: South Dakota Department of Health, Office of Data, Statistics, and Vital Records

Births by Ethnicity

Table 11 displays the number and percent of resident births by ethnicity of mother since 1999. In 2008, the percentage of births to non-Hispanic mothers was 96 percent, while the percentage of births to Hispanic mothers was 3.8 percent. Overall, the percent of Hispanic births has been increasing since 1999 with a percent increase of 123.5 percent.

**Table 11**  
**South Dakota Resident Live Births by Ethnicity of Mother, 1999-2008**

Births		Non-Hispanic		Hispanic	
Year	Num	Num	Percent	Num	Percent
2008	12,074	11,613	96.2	460	3.8
2007	12,253	11,761	96.0	471	3.8
2006	11,914	11,504	96.6	398	3.3
2005	11,466	11,070	96.5	392	3.4
2004	11,339	10,936	96.4	395	3.5
2003	11,022	10,682	96.9	340	3.1
2002	10,698	10,380	97.0	317	3.0
2001	10,475	10,211	97.5	257	2.5
2000	10,346	10,109	97.7	225	2.2
1999	10,516	10,331	98.2	178	1.7

Note: Failure of ethnicity of mother to add to the total is due to unknown ethnicity contained in the total birth column.

Source: South Dakota Department of Health, Office of Data, Statistics, and Vital Records

**Table 12**  
**South Dakota Resident Live Births by Mother's Ethnicity and Race, 2008**

Births		Non-Hispanic		Hispanic	
Race	Num	Num	Percent	Num	Percent
<b>Total</b>	<b>12,074</b>	<b>11,613</b>	<b>96.2</b>	<b>460</b>	<b>3.8</b>
White	9,432	9,044	95.9	388	4.1
American Indian	2,222	2,165	97.4	57	2.6
Black	223	220	98.7	3	1.3
Asian	170	167	98.2	3	1.8
Other	9	8	88.9	1	11.1

Note: Failure of ethnicity to add to the total is due to unknown ethnicity contained in the total birth column.

Source: South Dakota Department of Health, Office of Data, Statistics, and Vital Records

Table 12, on the right, displays resident births by mother's ethnicity and race. Asian, white, and American Indian race groups had the highest percent of Hispanic mothers.

**Table 13**

**South Dakota Resident Multiple Live Births, 1999-2008**

Year of Birth	Twins	Triplets	Quadruplets
2008	204	3	0
2007	173	7	0
2006	188	2	0
2005	143	3	1
2004	182	5	0
2003	153	1	0
2002	159	7	0
2001	166	4	0
2000	118	6	1
1999	138	5	0

Source: South Dakota Department of Health, Office of Data, Statistics, and Vital Records

Multiple Births

Table 13, on the right, displays resident multiple births for the last ten years. The highest number of twins happened in 2008 with 204 sets of twins born. The highest number of triplets happened in 2007 and 2002 both with seven sets of triplets born.

Marital Status

In 2008, the majority of women who gave birth, 61.5 percent, were married. However, the percent of single mothers giving birth has increased by 20.4 percent from 1999 through 2008.

**Table 14**  
**South Dakota Resident Births by Year of Birth and Marital Status, 1999-2008**

Year	Total		Married		Single	
	Num	Percent	Num	Percent	Num	Percent
2008	11,859	100	7,299	61.5	4,552	38.4
2007	12,061	100	7,406	61.4	4,637	38.4
2006	11,722	100	7,339	62.6	4,374	37.3
2005	11,308	100	7,179	63.5	4,116	36.4
2004	11,143	100	7,213	64.7	3,922	35.2
2003	10,864	100	7,141	65.7	3,721	34.3
2002	10,521	100	6,829	64.9	3,692	35.1
2001	10,295	100	6,829	66.3	3,466	33.7
2000	10,204	100	6,780	66.4	3,424	33.6
1999	10,365	100	7,057	68.1	3,308	31.9

Note: For purposes of reporting marital status of the mother, multiple births (twins, triplets, etc.)

Source: South Dakota Department of Health, Office of Data, Statistics, and Vital Records

South Dakota Resident and Occurrence Births

Table 15 shows that of the 12,074 South Dakota resident births in 2008, 432 occurred out of state. The four states where the majority of these births occurred are bordering states. The percent of births occurring in each are as follows:

- North Dakota-1.2 percent
- Iowa-1.1 Percent
- Minnesota-0.5 percent
- Nebraska-0.4 percent

In comparison, Table 16 shows 990 of the 12,632 births occurring in South Dakota during 2008 were to non-residents of South Dakota. Of the 12,632 live births occurring in South Dakota 10,028 were to white women while 2,182 were to American Indian women.

Attendant During Birth

South Dakota physicians and certified nurse midwives attended 92.5 percent and 6.4 percent of the births respectively. In 2008, home births represented 0.4 percent of South Dakota resident live births.

**Table 15**  
**South Dakota Resident Live Births by State in Which Birth Occurred and Mother's Race, 2008**

	Total	Race of Mother		
		White	American Indian	Other
<b>Total</b>	<b>12,074</b>	<b>9,432</b>	<b>2,222</b>	<b>402</b>
South Dakota	11,642	9,122	2,114	394
North Dakota	150	81	65	1
Iowa	128	120	4	3
Minnesota	60	56	3	1
Nebraska	50	18	31	0
All Other	44	35	5	3

Note: Failure of the races to add to the total is due to unknown races contained in the total birth column.

Source: South Dakota Department of Health, Office of Data, Statistics, and Vital Records

**Table 16**  
**Live Births Occurring in South Dakota by Mother's Resident State and Race, 2008**

	Total	Race of Mother		
		White	American Indian	Other
<b>Total</b>	<b>12,632</b>	<b>10,028</b>	<b>2,182</b>	<b>407</b>
South Dakota	11,642	9,122	2,114	394
Minnesota	302	281	10	8
Iowa	262	259	1	2
Nebraska	232	182	48	2
Wyoming	108	107	1	0
North Dakota	56	53	3	0
All Other	30	24	5	1

Note: Failure of the races to add to the total is due to unknown races contained in the total birth column

Source: South Dakota Department of Health, Office of Data, Statistics, and Vital Records.

## Birth Weight

Table 17, below, indicates that in 2008 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 783 low weight births or 6.5 percent of all South Dakota resident live births in 2008.

When looking at race, 6.2 percent of white babies and 6.7 percent of American Indian babies were low birth weight in 2008. In comparison, in 2007 white and American Indian low birth weight births were 6.6 and 7.8 percent, respectively.

**Table 17**  
**South Dakota Resident Live Births by Birth Weight and Mother's Race, 2008**

Birth Weight (in Grams)	Total		Race of Mother					
			White		American Indian		Other	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
0-499	18	0.1	12	0.1	4	0.2	1	0.2
500-999	52	0.4	36	0.4	12	0.5	1	0.2
1,000-1,499	69	0.6	54	0.6	9	0.4	4	1.0
1,500-1,999	160	1.3	125	1.3	27	1.2	9	2.2
2,000-2,499	484	4.0	361	3.8	96	4.3	22	5.5
2,500-2,999	1,973	16.3	1,529	16.2	349	15.7	86	21.4
3,000-3,499	4,733	39.2	3,760	39.9	810	36.5	154	38.3
3,500-3,999	3,518	29.1	2,767	29.3	655	29.5	85	21.1
4,000-4,499	896	7.4	684	7.3	197	8.8	15	3.7
4,500-4,999	147	1.2	87	0.9	56	2.5	1	0.2
5,000 & Over	16	0.1	11	0.1	5	0.2	1	0.2
<b>Total</b>	<b>12,074</b>	<b>100.0</b>	<b>9,432</b>	<b>100.0</b>	<b>2,222</b>	<b>100.0</b>	<b>402</b>	<b>100.0</b>
Median birth weight in grams	3,360		3,355		3,397		3,231	
Mean birth weight in grams	3,324		3,322		3,365		3,152	
Modal birth weight in grams	3,430		3,459		3,487		3,430	

Note: Failure of the races and birth weights to add to the total is due to unknown races and birth weights in the total birth column and row.  
Source: South Dakota Department of Health, Office of Data, Statistics, and Vital Records

Table 18, below, shows a more detailed racial breakdown by birth weight from 2004 to 2008. For all races, the majority of births fell into the 3,000 to 3,499 category.

From 2004 to 2008, there were 4,019 low weight births or 6.8 percent of all South Dakota resident live births.

**Table 18**  
**South Dakota Resident Live Births by Birth Weight and Mother's Race, 2004-2008**

Birth Weight (in Grams)	Total		Race of Mother									
			White		American Indian		Black		Asian		Other	
	Num	Percent	Num	Percent	Num	Percent	Num	Percent	Num	Percent	Num	Percent
0-499	88	0.1	61	0.1	22	0.2	3	0.3	0	0.0	1	0.9
500-999	230	0.4	162	0.4	57	0.5	8	0.8	3	0.4	0	0.0
1,000-1,499	340	0.6	235	0.5	84	0.8	11	1.1	7	1.0	1	0.9
1,500-1,999	792	1.3	608	1.3	154	1.4	16	1.7	6	0.8	7	6.6
2,000-2,499	2,569	4.4	1,980	4.3	487	4.5	50	5.2	40	5.6	8	7.5
2,500-2,999	9,568	16.2	7,511	16.2	1,660	15.2	220	22.9	151	21.1	14	13.2
3,000-3,499	22,780	38.6	18,056	39.0	3,967	36.3	391	40.7	302	42.2	40	37.7
3,500-3,999	17,275	29.3	13,622	29.4	3,231	29.6	206	21.4	170	23.8	28	26.4
4,000-4,499	4,635	7.8	3,549	7.8	1,004	9.2	47	4.9	30	4.2	2	1.9
4,500-4,999	676	1.2	441	1.0	219	2.0	7	0.7	5	0.7	2	1.9
5,000 & Over	62	0.1	37	0.1	22	0.2	2	0.2	0	0.0	1	0.9
<b>Total</b>	<b>59,046</b>	<b>100.0</b>	<b>46,272</b>	<b>100.0</b>	<b>10,923</b>	<b>100.0</b>	<b>961</b>	<b>100.0</b>	<b>715</b>	<b>100.0</b>	<b>106</b>	<b>100.0</b>
Median birth weight in grams	3,365		3,355		3,402		3,204		3,232		3,218	
Mean birth weight in grams	3,324		3,324		3,351		3,172		3,204		3,143	
Modal birth weight in grams	3,289		3,289		3,317		3,175		3,629		3,119	

Note: Failure of the races and birth weights to add to the total is due to unknown races and birth weights contained in the total birth column and row.  
Source: South Dakota Department of Health, Office of Data, Statistics, and Vital Records

Table 19, below, shows resident births by birth weight and mother's ethnicity. The majority of births for both non-Hispanic and Hispanic mothers fell into the 3,000 to 3,499 grams category.

When looking at ethnicity, 6.4 percent of non-Hispanic babies and 8.9 percent of Hispanic babies were low birth weight in 2008.

**Table 19**  
**South Dakota Resident Live Births by Birth Weight and Mother's Ethnicity, 2008**

Birth Weight (in Grams)	Total		Ethnicity of Mother			
			Non-Hispanic		Hispanic	
	Number	Percent	Number	Percent	Number	Percent
0-1,999	139	1.2	277	2.4	22	4.8
2,000-2,499	484	4.0	465	4.0	19	4.1
2,500-2,999	1,973	16.3	1,883	16.2	90	19.6
3,000-3,499	4,733	39.2	4,539	39.1	194	42.2
3,500-3,999	3,518	29.1	3,413	29.4	105	22.8
4,000-4,499	896	7.4	868	7.5	27	5.9
4,500-4,999	147	1.2	144	1.2	3	0.7
5,000 & Over	16	0.1	16	0.1	0	0.0
<b>Total</b>	<b>12,074</b>	<b>100.0</b>	<b>11,613</b>	<b>100.0</b>	<b>460</b>	<b>100.0</b>
Median birth weight in grams	3,360		3,369		3,289	
Mean birth weight in grams	3,324		3,329		3,199	
Mode birth weight in grams	3,430		3,430		3,317	

Note: Failure of the ethnicity and birth weights to add to the total is due to unknown ethnicity and birth weights contained in the total birth column and row.

Source: South Dakota Department of Health, Office of Data, Statistics, and Vital Records

In 2008, 68.6 percent of low birth weight infants in South Dakota were born preterm. Preterm birth is among the leading causes of infant death<sup>1</sup>.

Table 20, below, displays preterm and full term low birth weight births to South Dakota residents by mother's age.

**Table 20**  
**South Dakota Resident Preterm and Full Term Births Less Than 2,500 Grams by Mother's Age, 2008**

Mother's Age	Weeks of Gestation							
	Total		Less than 32 Weeks		32 to 36 Weeks		37 and Above	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
< 18 Years	20	100.0	6	30.0	10	50.0	4	20.0
18-19 Years	56	100.0	15	26.8	21	37.5	19	33.9
20-24 Years	213	100.0	40	18.8	99	46.5	72	33.8
25-29 Years	241	100.0	52	21.6	125	51.9	62	25.7
30-34 Years	173	100.0	34	19.7	88	50.9	50	28.9
35 + Years	80	100.0	13	16.3	34	42.5	33	41.3
<b>Total</b>	<b>783</b>	<b>100.0</b>	<b>160</b>	<b>20.4</b>	<b>377</b>	<b>48.1</b>	<b>240</b>	<b>30.7</b>

Note: Failure to add up to 783 because of 6 unknown gestations.

Source: South Dakota Department of Health, Office of Data, Statistics, and Vital Records

Table 21, on the next page, displays preterm and full term low birth weight births to South Dakota residents by mother's race. From 2004 to 2008, 70 percent of low birth weight infants in South Dakota were born preterm.

American Indian low birth weight infants were born preterm from 2004 to 2008. That was followed by 69.9 percent of white low birth weight infants, 63.6 percent of black low birth weight infants, and 59.6 percent of Asian low birth weight infants were born preterm from 2004 to 2008.

When looking at race, 71.9 percent of

**Table 21**  
**South Dakota Resident Preterm and Full Term Births Less Than 2,500 Grams by**  
**Mother's Race, 2004-2008**

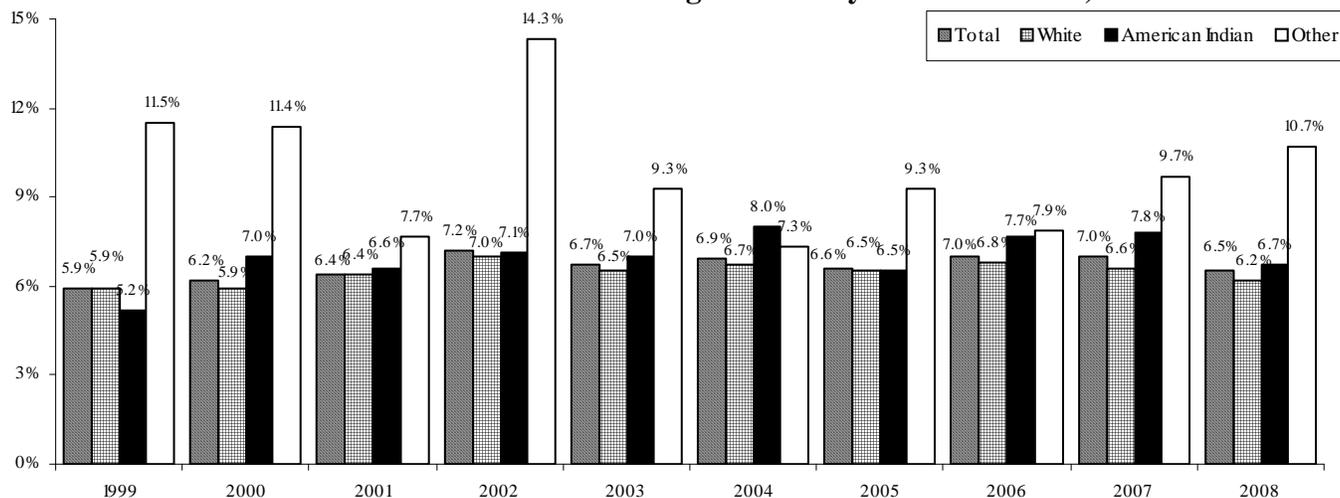
Mother's Race	Weeks of Gestation							
	Total		Less than 32 Weeks		32 to 36 Weeks		37 and Above	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
White	3,046	100.0	515	16.9	1,615	53.0	903	29.6
American Indian	804	100.0	176	21.9	402	50.0	222	27.6
Black	88	100.0	23	26.1	33	37.5	29	33.0
Asian	57	100.0	8	14.0	26	45.6	23	40.4
Other	17	100.0	1	5.9	12	70.6	4	23.5
<b>Total</b>	<b>4,019</b>	<b>100.0</b>	<b>725</b>	<b>18.0</b>	<b>2,089</b>	<b>52.0</b>	<b>1,183</b>	<b>29.4</b>

Note: Failure to add up to 4,019 because of 22 unknown gestation.  
Source: South Dakota Department of Health, Office of Data, Statistics, and Vital Records

Figure 3, below, compares the low birth weight babies by race of mother from 1999 to 2008. In 2008, white women accounted for 588 or 6.2 percent of low birth weight babies. American Indian women accounted

for 148 or 6.7 percent of low birth weight babies. In 2008, there was a 0.4 percent decrease in white low birth weight babies and a 1.1 percent decrease in low birth weight babies among American Indians.

**Figure 3**  
**South Dakota Resident Low Birth Weight Births by Race of Mother, 1999-2008**

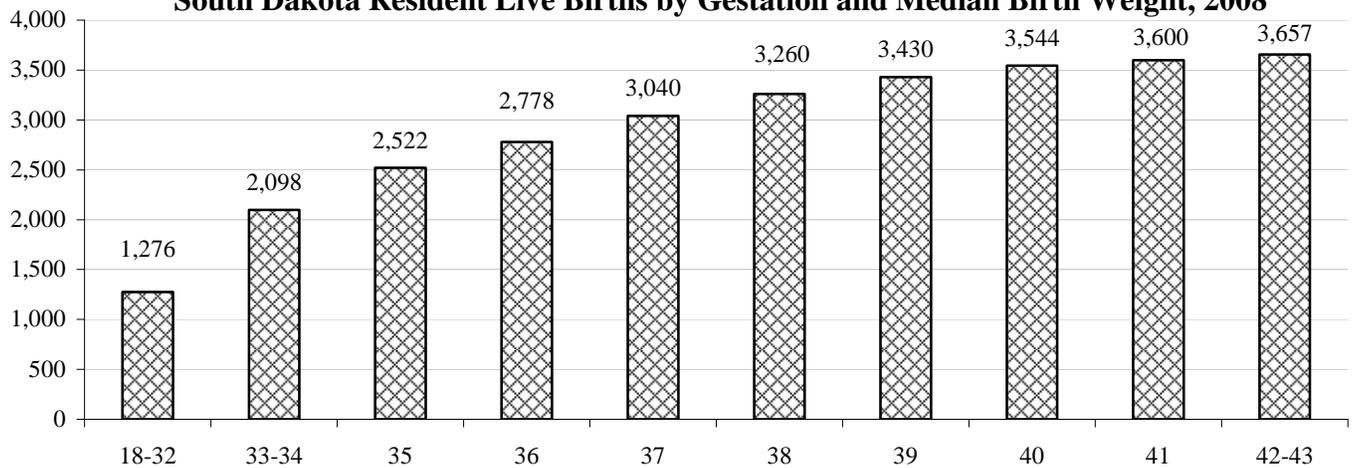


Source: South Dakota Department of Health, Office of Data, Statistics, and Vital Records

Figure 4, on the next page, shows live births by weeks of gestation and median birth weight.

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

**Figure 4**  
**South Dakota Resident Live Births by Gestation and Median Birth Weight, 2008**



Source: South Dakota Department of Health, Office of Data, Statistics, and Vital Records

Table 22, below, displays resident births by year of birth and weeks of gestation. In 2008, the majority of births, 59.1 percent, occurred between 37 to 39 weeks of gestation. This is consistent with the past

several years. However, in 1999, the majority of births occurred at 40 weeks of gestation or more with 48.5 percent.

**Table 22**  
**South Dakota Resident Births by Year of Birth and Weeks of Gestation, 1999-2008**

Year	Total		<35		35-36		37-39		40+	
	Number	Percent								
2008	11,624	100	267	2.3	529	4.6	6,867	59.1	3,961	34.1
2007	11,850	100	318	2.7	600	5.1	6,681	56.4	4,251	35.9
2006	11,505	100	317	2.8	575	5.0	6,584	57.2	4,029	35.0
2005	11,107	100	271	2.4	535	4.8	6,128	55.2	4,173	37.6
2004	10,932	100	293	2.7	536	4.9	5,876	53.8	4,227	38.7
2003	10,707	100	245	2.3	513	4.8	5,636	52.6	4,313	40.3
2002	10,348	100	257	2.5	464	4.5	5,332	51.5	4,295	41.5
2001	10,116	100	246	2.4	419	4.1	5,009	49.5	4,442	43.9
2000	10,071	100	252	2.5	458	4.5	4,852	48.2	4,509	44.8
1999	10,218	100	212	2.1	406	4.0	4,644	45.4	4,956	48.5

Note: Table does not include multiple pregnancies

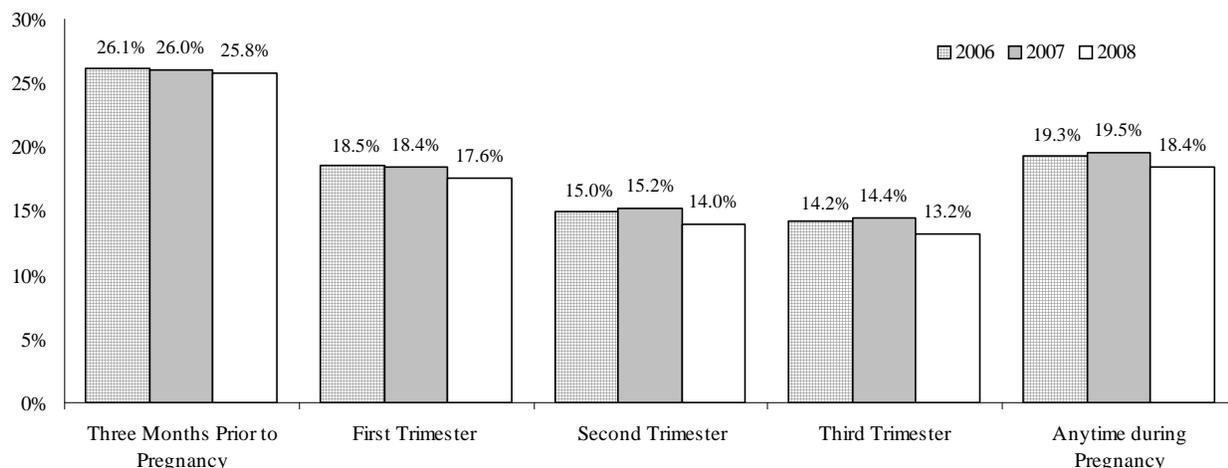
Source: South Dakota Department of Health, Office of Data, Statistics, and Vital Records

### Tobacco Use

Figure 5, on the next page, illustrates the percent of mothers who smoked in 2006, 2007, and 2008. From 2006-2008, the rate has remained consistent at 26 percent of mothers stating they smoked three months

prior to pregnancy. In 2008, 13.2 percent stated they still smoked during the third trimester, and 18.4 percent smoked anytime during their pregnancy.

**Figure 5**  
**South Dakota Resident Live Births by Cigarette Smoking Status, 2006-2008**

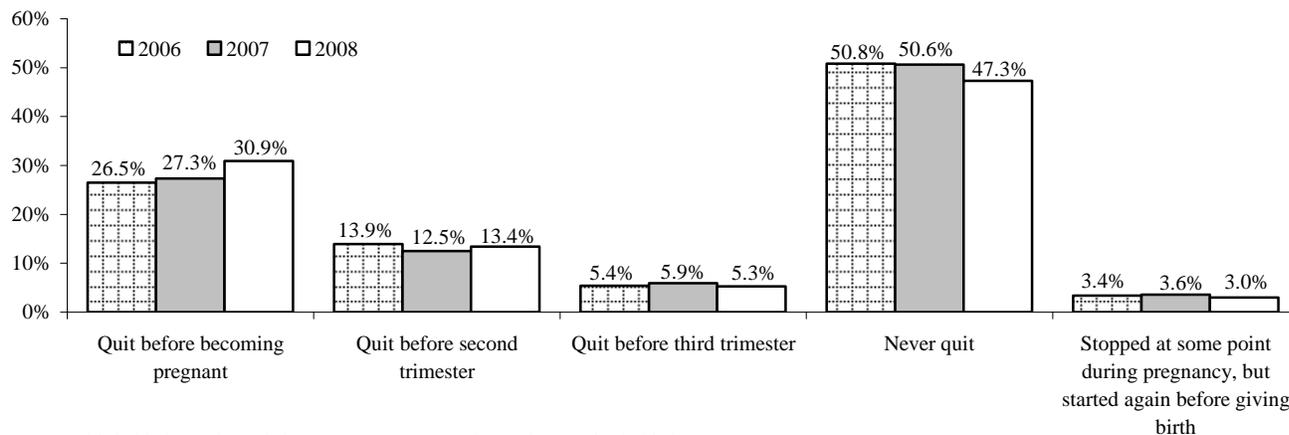


Note: For purposes of reporting cigarette smoking status during this pregnancy, multiple births (twins, triplets, etc.) are counted only as a single birth.  
 Source: South Dakota Department of Health, Office of Data, Statistics, and Vital Records

Figure 6, below, illustrates the percent of mothers who smoked prior to pregnancy from 2006-2008, by their smoking status during pregnancy.

The majority of women stated they never quit during their pregnancies, although in 2008, this decreased from 50.8 percent in 2006 to 47.3 percent.

**Figure 6**  
**South Dakota Resident Births to Mothers Who Smoked Prior to Pregnancy by Smoking Status During Pregnancy, 2006-2008**



Note: Multiple births (twins, triplets, etc.) were counted as only one single birth.  
 Source: South Dakota Department of Health, Office of Data, Statistics, and Vital Records

**Mother's Age and Race**

Table 23, on the next page, displays that women aged 25 to 29 account for the largest percentage of South Dakota resident births in 2008, at 33.0 percent. Women less than 20 years of age comprised 9.4 percent of the total resident births.

The median ages for white, American Indian, black, and Asian mothers were 27, 23, 26, 29 years of age, respectively. The modal ages for the same race groups were 28, 22, 23, 30 years of age respectively.

**Table 23**  
**South Dakota Resident Live Births by Mother's Age and Race, 2008**

Age of Mother	Total		Race of Mother									
			White		American Indian		Black		Asian		Other	
	Num	Percent	Num	Percent	Num	Percent	Num	Percent	Num	Percent	Num	Percent
Less than 18	358	3.0	154	1.6	186	8.4	8	3.6	6	3.5	2	22.2
18-19 Years	772	6.4	459	4.9	295	13.3	10	4.5	7	4.1	0	0.0
20-24 Years	3,250	26.9	2,309	24.5	823	37.0	74	33.6	34	20.0	1	11.1
25-29 Years	3,988	33.0	3,365	35.7	508	22.9	69	30.9	40	23.5	5	55.6
30-34 Years	2,551	21.1	2,174	23.0	279	12.6	42	18.8	51	30.0	1	11.1
35-39 Years	956	7.9	811	8.6	106	4.8	12	5.4	25	14.7	0	0.0
40 & over	198	1.6	159	1.7	25	1.1	7	3.1	7	4.1	0	0.0
<b>Total</b>	<b>12,074</b>	<b>100.0</b>	<b>9,432</b>	<b>100.0</b>	<b>2,222</b>	<b>100.0</b>	<b>223</b>	<b>100.0</b>	<b>170</b>	<b>100.0</b>	<b>9</b>	<b>100.0</b>

Note: Failure of age and races to add to the total is due to unknown ages and races contained in the total and other birth column and row.  
Failure of births to add to the total is due to unknown age.

Source: South Dakota Department of Health, Office of Data, Statistics, and Vital Records

Table 24, right, displays resident births by mother's age and ethnicity. Non-Hispanic women less than 20 years of age accounted for 9.4 percent of total non-Hispanic births, while Hispanic women less than 20 accounted for 18.9 percent of total Hispanic births. Non-Hispanic women aged 25 to 29 accounted for the largest percentage of total non-Hispanic births at 33.0 percent, while Hispanic women aged 20 to 24 accounted for the largest percentage of total Hispanic births at 31.3 percent.

**Table 24**  
**South Dakota Resident Live Births by Mother's Age and Ethnicity, 2008**

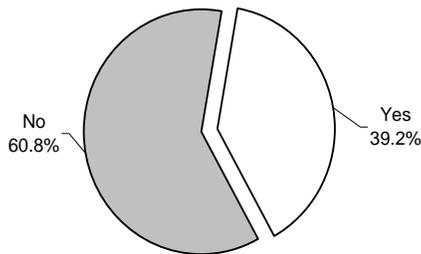
Age of Mother	Total		Ethnicity of Mother			
			Non-Hispanic		Hispanic	
	Num	Percent	Num	Percent	Num	Percent
Less than 18	358	3.0	327	2.6	31	6.7
18-19 Years	772	6.4	716	6.2	56	12.2
20-24 Years	3,250	26.9	3,106	26.7	144	31.3
25-29 Years	3,988	33.0	3,873	33.4	115	25.0
30-34 Years	2,551	21.1	2,469	21.3	82	17.8
35-39 Years	956	7.9	955	8.0	28	6.1
40 & over	198	1.4	194	1.7	4	0.9
<b>Total</b>	<b>12,074</b>	<b>100.0</b>	<b>11,613</b>	<b>100.0</b>	<b>460</b>	<b>100.0</b>

Note: Failure of the age and ethnicity to add to the total is due to unknown ages and ethnicity contained in the total birth and non-Hispanic column and row.  
Failure of births to add to the total is due to unknown age.

Source: South Dakota Department of Health, Office of Data, Statistics, and Vital Records

Figure 7, below, displays the percent of South Dakota resident live births by WIC Status. Almost 40 percent (39.2 percent) of mothers were on WIC during their pregnancy.

**Figure 7**  
**South Dakota Resident Live Births by WIC Status, 2008**

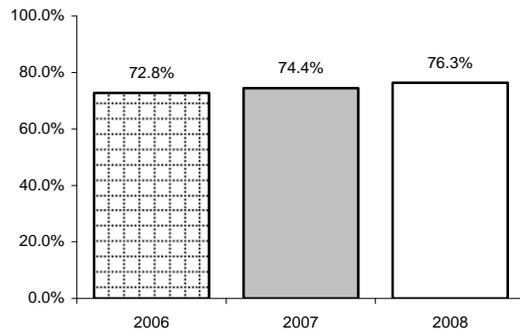


Note: For purposes of reporting WIC status, multiple births (twins, triplets, etc.) are counted only as a single birth.

Source: South Dakota Department of Health, Office of Data, Statistics, and Vital Records

Figure 8, below, displays the percent of mother's breastfeeding at time of discharge. The percent of women who stated they were breastfeeding at time of discharge from the hospital increased from 74.4 percent in 2007 to 76.3 percent in 2008.

**Figure 8**  
**South Dakota Resident Live Births by Breastfeeding Status at Time of Discharge, 2006-2008**



Note: For purposes of reporting breastfeeding status at time of discharge, multiple births (twins, triplets, etc.) are counted only as a single birth.

Source: South Dakota Department of Health, Office of Data, Statistics, and Vital Records

Table 25, below, displays South Dakota resident teen births (15 to 17 years old) by race from 2000 through 2008. In 2008, the teen birth rate was 18.6.

When race is taken into account, the white teen birth rate was 9.8 compared to a teen birth rate of 70.0 for American Indians in 2008.

**Table 25**  
**South Dakota Resident Teen Births and Rates by Year and Mother's Race, 2000-2008**

Year	Total		White		American Indian		Other	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
2008	341	18.6	151	9.8	173	70.0	15	52.3
2007	330	18.0	159	10.3	164	66.4	5	17.4
2006	315	17.2	149	9.7	159	64.3	7	24.4
2005	336	18.3	157	10.2	174	70.4	5	17.4
2004	297	16.2	141	9.1	146	59.1	10	34.8
2003	303	16.5	129	8.4	165	66.8	9	31.4
2002	304	16.6	159	10.3	139	56.3	6	20.9
2001	336	18.3	176	11.4	152	61.5	8	27.9
2000	354	19.3	189	12.2	157	63.5	8	27.9

Note: Rates are per 1,000 female population ages 15-17.  
Rates are based on the 2000 census.

For purposes of reporting birth rates, multiple births (twins, triplets, etc.) are counted only as a single birth.

Source: South Dakota Department of Health, Office of Data, Statistics, and Vital Records.

Prenatal Care

Table 26, below, shows the number and percentage of South Dakota resident single live births and when the mothers started prenatal care in 2008. Almost 70 percent of mothers initiated care in the first trimester - 73 percent of white mothers, 48.6 percent of American Indian mothers, 42.7 percent of black mothers, and 64.1 percent of Asian

mothers. Approximately 2 percent (1.7%) did not obtain prenatal care at all - 0.5 percent of white mothers, 2.3 percent of American Indian mothers, 0.0 percent black mothers and 0.6 percent Asian mothers. Due to a change in reporting, data in this table are not comparable to data prior to 2006.

**Table 26**  
**South Dakota Resident Live Births by Trimester Prenatal Care Began and Mother's Race, 2008**

Trimester Prenatal Care Began	Total		Race of Mother									
			White		American Indian		Black		Asian		Other	
	Num	Percent	Num	Percent	Num	Percent	Num	Percent	Num	Percent	Num	Percent
First	8,036	67.8	6,760	73.0	1,062	48.6	93	42.7	109	64.1	4	57.1
Second	2,895	24.4	1,966	21.2	781	35.7	99	45.4	45	26.5	0	0.0
Third	632	5.3	356	3.8	239	10.9	20	9.2	12	7.1	3	42.9
None	93	0.8	42	0.5	50	2.3	0	0.0	1	0.6	0	0.0
Unknown	203	1.7	138	1.5	54	2.5	6	2.8	3	1.8	0	0.0
<b>Total</b>	<b>11,859</b>	<b>100.0</b>	<b>9,262</b>	<b>100.0</b>	<b>2,186</b>	<b>100.0</b>	<b>218</b>	<b>100.0</b>	<b>170</b>	<b>100.0</b>	<b>7</b>	<b>100.0</b>

Note: Failure of the races to add to the total is due to the unknown races contained in the total birth column.

For purposes of reporting prenatal care, multiple births (twins, triplets, etc.) are counted only as a single birth.

Source: South Dakota Department of Health, Office of Data, Statistics, and Vital Records

Table 27, below, displays when mothers began prenatal care by the ethnicity of the mother. The majority of non-Hispanic mothers, 68.5 percent, and Hispanic

mothers, 49.7 percent, began prenatal care in their first trimester. Less than one percent of non-Hispanic and two percent of Hispanic mothers did not obtain prenatal care at all.

**Table 27**  
**South Dakota Resident Live Births by Trimester Prenatal Care Began and Mother's Ethnicity, 2008**

Trimester Prenatal Care Began	Total		Ethnicity of Mother			
			Non-Hispanic		Hispanic	
	Number	Percent	Number	Percent	Number	Percent
First	8,036	67.8	7,811	68.5	225	49.7
Second	2,895	24.4	2,732	24.0	162	35.8
Third	632	5.3	584	5.1	48	10.6
None	93	0.8	83	0.7	10	2.2
Unknown	203	1.7	195	1.7	8	1.8
<b>Total</b>	<b>11,859</b>	<b>100.0</b>	<b>11,405</b>	<b>100.0</b>	<b>453</b>	<b>100.0</b>

Note: Failure of the ethnicities to add to the total is due to the unknown ethnicities contained in the total birth column. For purposes of reporting prenatal care, multiple births (twins, triplets, etc.) are counted only as a single birth.  
Source: South Dakota Department of Health, Office of Data, Statistics, and Vital Records

Table 28, below, indicates that 19 percent of pregnancies resulting in low birth weight babies (less than 2,500 grams) had fewer than five prenatal care visits; 33.6 percent

of American Indian and 14.9 percent of the white low birth weight babies were born to mothers with fewer than five prenatal care visits.

**Table 28**  
**South Dakota Resident Live Births by Number of Prenatal Visits and Mother's Race for Low Birth Weight Babies, 2008**

Number of Prenatal Care Visits	Total		Race of Mother					
			White		American Indian		Other	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
None	18	2.7	9	1.8	9	6.9	0	0.0
1-4	107	16.3	64	13.1	35	26.7	7	19.4
5-9	284	43.2	221	45.3	48	36.6	14	38.9
10-14	176	26.8	143	29.3	22	16.8	11	30.6
15-19	36	5.5	27	5.5	6	4.6	3	8.3
20+	15	2.3	13	2.7	2	1.5	0	0.0
Not Stated	21	3.2	11	2.3	9	6.9	1	2.8
<b>Total</b>	<b>657</b>	<b>100.0</b>	<b>488</b>	<b>100.0</b>	<b>131</b>	<b>100.0</b>	<b>36</b>	<b>100.0</b>

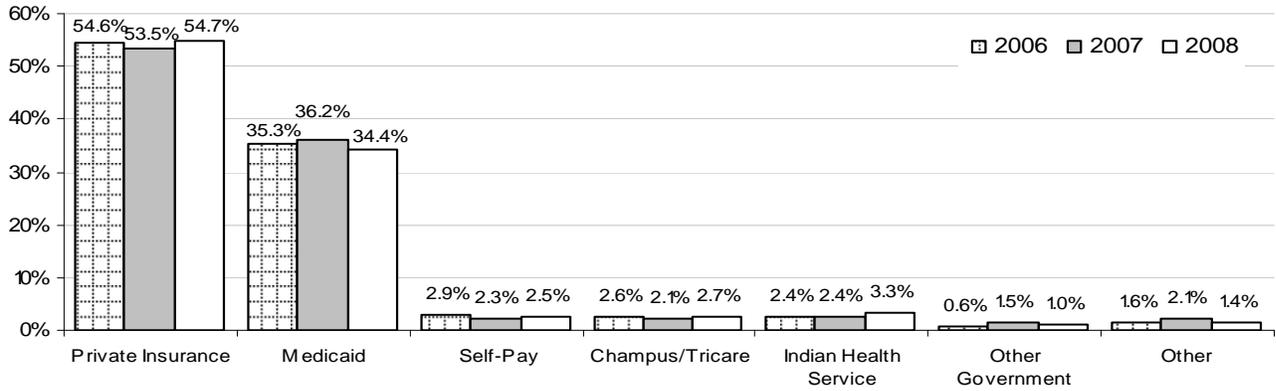
Note: For purposes of calculating prenatal care, multiple births (twins, triplets, etc.) are counted only as a single birth.  
Source: South Dakota Department of Health, Office of Data, Statistics, and Vital Records

### Payment Type

Figure 9, on the next page, illustrates the percent of births by payment type. In 2008 the majority of births, 54.7 percent, were

paid by private insurance. The second highest payment type was Medicaid with 34.4 percent.

**Figure 9**  
**South Dakota Resident Live Births by Payment Type, 2007 and 2008**



Note: For purposes of reporting payment type, multiple births (twins, triplets, etc.) are counted only as a single birth.  
Source: South Dakota Department of Health, Office of Data, Statistics, and Vital Records

**Infections Present and/or Treated**

Table 29, below, displays resident births by infections present and/or treated during mother’s pregnancy by race. American Indian mothers had the highest percent of infections present and/or treated during pregnancy with 8.8 percent. Black mothers

had the second highest percent of infections present and/or treated during pregnancy with 8.7 percent. Asian mothers had 4.7 percent followed closely by white mothers with 3.1 percent of infections present and/or treated during pregnancy.

**Table 29**  
**South Dakota Resident Live Births by Infections Present and/or Treated During This Pregnancy by Mother’s Race, 2008**

	Total		Race of Mother									
			White		American Indian		Black		Asian		Other	
	Num	%	Num	%	Num	%	Num	%	Num	%	Num	%
Chlamydia	210	1.8	52	0.6	151	6.9	4	1.8	2	1.2	1	14.3
Genital herpes*	109	0.9	77	0.8	26	1.2	5	2.3	1	0.6	0	0.0
Gonorrhea	21	0.2	6	0.1	13	0.6	1	0.5	0	0.0	1	14.3
Hepatitis B	21	0.2	6	0.1	3	0.1	6	2.8	5	2.9	0	0.0
Hepatitis C	10	0.1	4	0.1	5	0.2	0	0.0	1	0.6	0	0.0
Syphilis	8	0.1	2	0.0	2	0.1	4	1.8	0	0.0	0	0.0
Toxoplasmosis	3	0.0	3	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Cytomegalovirus (CMV)	1	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Rubella	1	0.0	1	0.0	1	0.0	0	0.0	0	0.0	0	0.0
No infections	11,443	96.9	9,073	98.4	1,989	91.2	199	91.3	162	95.3	6	85.7

Note: For purposes of reporting infections present and/or treated during this pregnancy, multiple births (twins, triplets, etc.) are counted only as a single birth.  
\* According to the National Center for Health Statistics, genital herpes is comparable with data prior to 2006.  
Source: South Dakota Department of Health, Office of Data, Statistics, and Vital Records

**Medical History Factors**

Table 30, on the next page, lists the medical history factors for South Dakota resident mothers for 2008. American Indian mothers had the highest with 26.3 percent, followed

by white mothers with 24.5 percent. Black mothers and Asian mothers had 17.4 and 23.1 percent of medical history factors associated with pregnancies, respectively.

**Table 30**  
**South Dakota Resident Live Births by Mother's Medical History Factors for this**  
**Pregnancy by Mother's Race, 2008**

	Total		Race of Mother									
			White		American Indian		Black		Asian		Other	
	Num	%	Num	%	Num	%	Num	%	Num	%	Num	%
Mother had a previous cesarean delivery	1,372	11.7	1,047	11.5	287	13.4	17	8.0	19	11.2	2	28.6
Hypertension, gestational	492	4.2	417	4.6	64	3.0	5	2.3	5	3.0	1	14.3
Diabetes, gestational	488	4.2	382	4.2	94	4.4	4	1.9	8	4.7	0	0.0
Previous preterm births	425	3.6	291	3.2	118	5.5	6	2.8	9	5.3	1	14.3
Other previous poor pregnancy outcomes	288	2.5	194	2.1	81	3.8	7	3.3	4	2.4	1	14.3
Hypertension, pre-pregnancy*	103	0.9	76	0.8	26	1.2	0	0.0	1	0.6	0	0.0
Fertility-enhancing drugs, artificial insemination or intrauterine insemination	72	0.6	69	0.8	2	0.1	0	0.0	1	0.6	0	0.0
Diabetes, pre-existing	69	0.6	43	0.5	25	1.2	0	0.0	0	0.0	0	0.0
Hypertension, eclampsia	40	0.3	33	0.4	7	0.3	0	0.0	0	0.0	0	0.0
Assisted reproductive technology	32	0.3	31	0.3	1	0.0	0	0.0	0	0.0	0	0.0
Hypertension, unknown type	32	0.3	25	0.3	6	0.3	1	0.5	0	0.0	0	0.0
Family history of hearing loss	29	0.2	21	0.2	7	0.3	1	0.5	0	0.0	0	0.0
Fertility treatment, unspecified	15	0.1	14	0.2	1	0.0	0	0.0	0	0.0	0	0.0
No medical risk factors for this pregnancy	8,803	75.3	6,900	75.5	1,581	73.7	176	82.6	130	76.9	3	42.9

Note: For purposes of reporting medical history factors of the mother, multiple births (twins, triplets, etc.) are counted only as a single birth.

\*According to the National Center for Health Statistics, hypertension, pre-pregnancy is comparable with data prior to 2006.

Source: South Dakota Department of Health, Office of Data, Statistics, and Vital Records

### 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<sup>1</sup>.

In 2008, 1.6 percent of South Dakota resident infants received five minute Apgar scores less than seven.

Considering race, 1.6 percent of white infants and 1.3 percent of American Indian infants received a five-minute Apgar score less than seven in 2008.

### Characteristics of Labor and Delivery

Table 31, on the next page, lists the characteristics of labor and delivery in 2008 reported on South Dakota resident birth certificates. The four most prevalent characteristics in 2008 were epidural or spinal anesthesia with 60.1 percent, induction of labor with 31.1 percent, augmentation of labor with 27.2 percent and antibiotics during labor with 20.4 percent. Overall characteristics of labor and delivery were present in 80 percent of resident births in 2008.

**Table 31**  
**South Dakota Resident Live Births by**  
**Characteristics of Labor and Delivery by Mother's Race, 2008**

	Race of Mother											
	Total		White		American Indian		Black		Asian		Other	
	Num	%	Num	%	Num	%	Num	%	Num	%	Num	%
Epidural or spinal anesthesia	7,108	60.1	5,925	64.1	962	44.1	109	50.0	101	59.4	4	57.1
Induction of labor*	3,679	31.1	3,114	33.7	471	21.6	62	28.4	27	15.9	0	0.0
Augmentation of labor	3,213	27.2	2,592	28.1	505	23.1	69	31.7	43	25.3	0	0.0
Antibiotics during labor	2,411	20.4	1,887	20.4	432	19.8	56	25.7	34	20.0	0	0.0
Fetal intolerance	906	7.7	679	7.4	185	8.5	23	10.6	19	11.2	0	0.0
Meconium staining of the amniotic fluid	860	7.3	602	6.5	215	9.8	28	12.8	15	8.8	0	0.0
Non-vertex presentation	420	3.5	333	3.6	73	3.3	2	0.9	9	5.3	2	28.6
Steroids (glucocorticoids) for fetal lung maturation received by the mother prior to delivery	125	1.1	92	1.0	27	1.2	2	0.9	4	2.4	0	0.0
Chorioamnionitis diagnosed during labor	65	0.5	38	0.4	25	1.1	1	0.5	1	0.6	0	0.0
None of the above	2,366	20.0	1,644	17.8	634	29.0	45	20.6	38	22.4	1	14.3

Note: For purposes of reporting characteristics of labor and delivery, multiple births (twins, triplets, etc.) are counted only as a single birth.

\* According to the National Center for Health Statistics, induction or labor is comparable with data prior to 2006.

Source: South Dakota Department of Health, Office of Data, Statistics, and Vital Records

### Obstetric Procedures

Table 32, below, shows obstetric procedures by race for 2008. Tocolysis was the top obstetric procedure used for all races. White and American Indian mothers had the

highest percent of tocolysis with 1.8 percent, followed closely by Asian mothers with 1.2 percent.

**Table 32**  
**South Dakota Resident Live Births by Obstetric Procedures by Mother's Race, 2008**

	Race of Mother											
	Total		White		American Indian		Black		Asian		Other	
	Num	%	Num	%	Num	%	Num	%	Num	%	Num	%
Tocolysis*	215	1.8	170	1.8	39	1.8	2	0.9	2	1.2	0	0.0
Cervical cerclage	36	0.3	28	0.3	6	0.3	1	0.5	1	0.6	0	0.0
External cephalic version-failed	31	0.3	26	0.3	4	0.2	0	0.0	1	0.6	0	0.0
External cephalic version-successful	20	0.2	16	0.2	2	0.1	1	0.5	1	0.6	0	0.0
No obstetric procedures	11,511	97.5	8,982	97.5	2,130	97.8	214	98.2	165	97.1	7	100.0

Note: For purposes of reporting obstetric procedures of the mother, multiple births (twins, triplets, etc.) are counted only as a single birth.

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

Source: South Dakota Department of Health, Office of Data, Statistics, and Vital Records

### Onset of Labor

Table 33, on the next page, displays the complications associated with the onset of labor by mother's race. The highest complication associated with onset of labor for white mothers and Asian mothers was

was premature rupture of membranes with 7.5 and 7.6 percent, respectively. In 2008, 12.8 percent of births had a complication associated with the onset of labor.

**Table 33**  
**South Dakota Resident Live Births by Onset of Labor by Mother's Race, 2008**

	Total		Race of Mother									
			White		American Indian		Black		Asian		Other	
	Num	%	Num	%	Num	%	Num	%	Num	%	Num	%
Premature rupture of membranes	813	6.9	693	7.5	95	4.4	12	5.5	13	7.6	0	0.0
Precipitous labor (< 3 hours)*	453	3.8	342	3.7	84	3.9	17	7.8	9	5.3	0	0.0
Prolonged labor (20 + hours)	310	2.6	246	2.7	51	2.3	8	3.7	5	2.9	0	0.0
None of the above	10,300	87.2	7,995	86.7	1,959	89.9	181	83.0	144	84.7	7	100.0

Note: For purposes of reporting onset of labor, multiple births (twins, triplets, etc.) are counted only as a single birth.

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

Source: South Dakota Department of Health, Office of Data, Statistics, and Vital Records

### Maternal Complications

Table 34, below, illustrates the maternal complications by mother's race in 2008. The highest maternal complication in 2008 was third or fourth degree perineal laceration with 1.6 percent of births. Likewise, the highest maternal complication

for white, American Indian, black, and Asian mothers was third or fourth degree perineal laceration. Overall, maternal complications were present in 2.2 percent of resident births in 2008.

**Table 34**  
**South Dakota Resident Live Births by Maternal Complications by Mother's Race, 2008**

	Total		Race of Mother									
			White		American Indian		Black		Asian		Other	
	Num	%	Num	%	Num	%	Num	%	Num	%	Num	%
Third or fourth degree perineal laceration	186	1.6	152	1.6	27	1.2	3	1.4	4	2.4	0	0.0
Maternal transfusion	45	0.4	23	0.2	19	0.9	1	0.5	2	1.2	0	0.0
Unplanned operating procedure following delivery	38	0.3	25	0.3	12	0.6	1	0.5	0	0.0	0	0.0
Admitted to intensive care	12	0.1	10	0.1	1	0.0	0	0.0	1	0.6	0	0.0
Unplanned hysterectomy	7	0.1	6	0.1	1	0.0	0	0.0	0	0.0	0	0.0
Ruptured uterus	3	0.0	2	0.0	1	0.0	0	0.0	0	0.0	0	0.0
None of the above	11,547	97.8	9,022	97.9	2,127	97.6	213	97.7	163	95.9	7	100.0

Note: For purposes of reporting obstetric procedures of the mother, multiple births (twins, triplets, etc.) are counted only as a single birth.

Source: South Dakota Department of Health, Office of Data, Statistics, and Vital Records

### Methods of Delivery

Table 35, on the next page, displays the method of delivery by mother's race from 2008. Vaginal birth was the largest method of delivery for all races. Primary C-section

was the second largest method of delivery for all races followed by repeat C-section methods.

**Table 35**  
**South Dakota Resident Live Births by Method of Delivery by Mother's Race, 2008**

	Race of Mother											
	Total		White		American Indian		Black		Asian		Other	
	Num	%	Num	%	Num	%	Num	%	Num	%	Num	%
Vaginal (Total)*	8,809	74.3	6,889	74.4	1,605	73.4	166	76.1	136	80.0	1	14.3
Vaginal with no previous C-section	8,606	72.6	6,724	72.6	1,572	71.9	163	74.8	134	78.8	1	14.3
Vaginal after previous C-section	188	1.6	152	1.6	31	1.4	3	1.4	2	1.2	0	0.0
Vaginal (unknown previous types)	15	0.1	13	0.1	2	0.1	0	0.0	0	0.0	0	0.0
C-Section (Total)*	3,049	25.7	2,372	25.6	581	26.6	52	23.9	34	20.0	6	85.7
Primary C-section	1,809	15.3	1,440	15.5	307	14.0	37	17.0	17	10.0	4	57.1
Repeat C-section	1,234	10.4	927	10.0	273	12.5	15	6.9	17	10.0	2	28.6
C-section (unknown previous types)	6	0.1	5	0.1	1	0.0	0	0.0	0	0.0	0	0.0
Not Stated	1	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0

Note: For purposes of reporting methods of delivery, multiple births (twins, triplets, etc.) are counted only as a single birth.

\* According to the National Center for Health Statistics, vaginal and total C-section are comparable with data prior to 2006.

Source: South Dakota Department of Health, Office of Data, Statistics, and Vital Records

Table 36, below, displays the method of delivery by fetal presentation. The majority of births, 95.8 percent, were cephalic while

3.2 percent were breech. When looking at primary C-section births, 16.6 percent were breech while 79.5 percent were cephalic.

**Table 36**  
**South Dakota Resident Births by Method of Delivery and Fetal Presentation, 2008**

	Total		Cephalic		Breech		Other	
	Num	Percent	Num	Percent	Num	Percent	Num	Percent
<b>Total</b>	<b>11,859</b>	<b>100</b>	<b>11,356</b>	<b>95.8</b>	<b>375</b>	<b>3.2</b>	<b>124</b>	<b>1.0</b>
Vaginal (Total)*	8,809	100	8,754	99.4	25	0.3	27	0.3
Vaginal with no previous C-section	8,606	100	8,555	99.4	23	0.3	25	0.3
Vaginal after previous C-section	188	100	185	98.4	2	1.1	1	0.5
Vaginal (unknown previous types)	15	100	14	93.3	0	0.0	1	6.7
C-Section (Total)*	3,049	100	2,602	85.3	350	11.5	97	3.2
Primary C-section	1,809	100	1,438	79.5	301	16.6	70	3.9
Repeat C-section	1,234	100	1,164	94.3	48	3.9	22	1.8
C-section (unknown previous types)	6	100	0	0.0	1	16.7	5	83.3

Note: Multiple births (twins, triplets, etc.) were counted as only one single birth.

Source: South Dakota Department of Health, Office of Data, Statistics, and Vital Records

Table 37, on the next page, shows South Dakota resident births delivered by C-section and whether labor was attempted. In over half, or 50.4 percent, of primary C-

sections labor was attempted. However, in 49.4 percent of primary C-sections labor was not attempted.

**Table 37**

**South Dakota Resident Births Delivered by C-Section and Whether Labor was Attempted, 2008**

	Total		Yes		No	
	Num	Percent	Num	Percent	Num	Percent
C-Section (Total)	3,049	100	977	32.0	2,067	67.8
Primary C-section	1,809	100	912	50.4	893	49.4
Repeat C-section	1,234	100	63	5.1	1,170	94.8
C-section (unknown previous types)	6	100	2	33.3	4	66.7

Note: Multiple births (twins, triplets, etc.) were counted as only one single birth.  
 Source: South Dakota Department of Health, Office of Data, Statistics, and Vital Records

Abnormal Conditions of the Newborn

Table 38, below, shows abnormal conditions in newborns in 2008. In 2008, 11.0 percent of South Dakota resident live birth certificates reported abnormal conditions of the newborn. Racially, abnormal conditions were reported for 10.5 percent of white

infants while they were reported for 12.6 percent of American Indian infants. Overall, NICU admission was the most frequently reported condition in 2008 followed by antibiotics received by the newborn for suspected neonatal sepsis.

**Table 38**

**South Dakota Resident Live Births by Abnormal Conditions of Newborn by Mother's Race, 2008**

	Total		Race of Mother									
			White		American Indian		Black		Asian		Other	
	Num	%	Num	%	Num	%	Num	%	Num	%	Num	%
NICU admission	1,064	8.8	804	8.6	208	9.4	29	13.0	16	9.4	2	22.2
Antibiotics received by the newborn for suspected neonatal sepsis	581	4.8	419	4.5	139	6.3	14	6.3	6	3.5	0	0.0
Assisted ventilation required immediately following delivery	553	4.6	413	4.4	119	5.4	14	6.3	6	3.5	0	0.0
Assisted ventilation required for more than six hours	334	2.8	259	2.8	61	2.7	7	3.1	4	2.4	0	0.0
Newborn given surfactant replacement therapy	87	0.7	68	0.7	15	0.7	4	1.8	0	0.0	0	0.0
Significant birth injury	13	0.1	12	0.1	1	0.0	0	0.0	0	0.0	0	0.0
Seizure or serious neurologic dysfunction	9	0.1	7	0.1	2	0.1	0	0.0	0	0.0	0	0.0
None of the above	10,714	89.0	8,413	89.5	1,942	87.4	189	84.8	151	88.8	7	77.8

Note: For purposes of reporting abnormal conditions of newborn, multiple births (twins, triplets, etc.) are counted only as a single birth.  
 Source: South Dakota Department of Health, Office of Data, Statistics, and Vital Records

Congenital Anomalies

Congenital anomalies reported in 2008 are shown in Table 39, on the next page. The total number of infants with at least one anomaly in 2008 was 104 or a rate of 8.6

per 1,000 live births. The most frequently reported anomaly in 2008 was chromosomal disorder with 19 or a rate of 1.6 per 1,000 live births.

**Table 39**  
**South Dakota Resident Births with Reported Congenital Anomalies,**  
**by Infant's Gender, 2008**

	Total		Infant's Gender			
			Female		Male	
	Number	Rate	Number	Rate	Number	Rate
Chromosomal disorder	19	1.6	6	1.0	13	2.1
Other craniofacial abnormality	14	1.2	9	1.5	5	0.8
Cleft lip with or without a cleft palate	12	1.0	5	0.9	7	1.1
Cleft palate alone	11	0.9	5	0.9	6	1.0
Cyanotic congenital heart disease	11	0.9	6	1.0	5	0.8
Hypospadias	9	0.7	0	0.0	9	1.5
Gastroschisis	8	0.7	4	0.7	4	0.6
Limb reduction defect	7	0.6	1	0.2	6	1.0
Down syndrome (trisomy 21)*	5	0.4	4	0.7	1	0.2
Anencephaly*	5	0.4	2	0.3	3	0.5
Meningomyelocele/Spina bifida*	2	0.2	1	0.2	1	0.2
Omphalacele	1	0.1	0	0.0	1	0.2
Congenital diaphragmatic hernia	0	0.0	0	0.0	0	0.0
None of the above	11,952	992.7	5,803	993.7	6,149	991.8

Note: Rates are per 1,000 live births from 2008.

\* According to the National Center for Health Statistics, Down syndrome, meningomyelocele/spina bifida, and anencephaly are comparable with data prior to 2006.

Failure of births to add to the total is due to unknown gender.

Source: South Dakota Department of Health, Office of Data, Statistics, and Vital Records

Table 40, below, displays congenital anomalies in 2008 by mother's race. Babies born to white mothers showed the highest congenital anomalies with chromosomal

disorder while babies born to American Indian mothers showed the highest anomalies with other craniofacial abnormalities.

**Table 40**  
**South Dakota Resident Births with Reported Congenital Anomalies by Mother's Race, 2008**

	Total		Race of Mother									
			White		American Indian		Black		Asian		Other	
	Num	%	Num	%	Num	%	Num	%	Num	%	Num	%
Chromosomal disorder	19	0.2	15	0.2	2	0.1	2	0.9	0	0.0	0	0.0
Other craniofacial abnormality	14	0.1	7	0.1	7	0.1	0	0.0	0	0.0	0	0.0
Cleft lip with or without a cleft palate	12	0.1	9	0.1	3	0.1	0	0.0	0	0.0	0	0.0
Cleft palate alone	11	0.1	7	0.1	3	0.1	0	0.0	1	0.6	0	0.0
Cyanotic congenital heart disease	11	0.1	8	0.1	3	0.1	0	0.0	0	0.0	0	0.0
Hypospadias	9	0.1	9	0.1	0	0.0	0	0.0	0	0.0	0	0.0
Gastroschisis	8	0.1	5	0.1	3	0.1	0	0.0	0	0.0	0	0.0
Limb reduction defect	7	0.1	6	0.1	1	0.0	0	0.0	0	0.0	0	0.0
Down syndrome (trisomy 21)*	5	0.0	3	0.0	2	0.1	0	0.0	0	0.0	0	0.0
Anencephaly*	5	0.0	4	0.0	1	0.0	0	0.0	0	0.0	0	0.0
Meningomyelocele/Spina bifida*	2	0.0	2	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Omphalacele	1	0.0	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Congenital diaphragmatic hernia	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
None of the above	11,950	99.3	9,336	99.3	2,198	99.0	221	99.1	169	99.4	9	100.0

Note: For purposes of reporting congenital anomalies of the mother, multiple births (twins, triplets, etc.) are counted only as a single birth.

\* According to the National Center for Health Statistics, Down syndrome, meningomyelocele/spina bifida, and anencephaly are comparable with data prior to 2006.

Source: South Dakota Department of Health, Office of Data, Statistics, and Vital Records

