

2012-2014

**Idaho Resident
Elective Inductions
and Elective Cesarean
Sections**



**Bureau of Vital Records and Health Statistics
Division of Public Health
Idaho Department of Health and Welfare**



Table of Contents

2005-2014 Idaho Resident Trends

Total Singleton Births Delivered Before 39 Completed Weeks Gestation 2005-2014	3
Total Number of Inductions and Cesarean Sections Deliveries Before 39 Completed Weeks Gestation.....	3
Percentage of Births With Inductions and Cesareans That Were Delivered Before 39 Completed Weeks Gestation	3
Total Number of Elective Deliveries Before 39 Completed Weeks Gestation	3
Percentage of Births Delivered Before 39 Completed Weeks Gestation That Were Elective Deliveries	3

2012-2014 Idaho Resident Three-Year Aggregate

Number of Elective Deliveries by Mother's County of Residence Urban, Rural, or Frontier Designation	4
Percentage of Births That Were Elective Deliveries by Mother's County of Residence Urban, Rural, or Frontier Designation	4
Number of Elective Deliveries by Mother's District of Residence	4
Percentage of Births That Were Elective Deliveries by District of Residence	4
Number of Elective Deliveries by Payment Source for Delivery	5
Percentage of Births That Were Elective Deliveries by Payment Source for Delivery	5
Number of Elective Deliveries by Mother's Pre-Pregnancy Body Mass Index (BMI)	5
Percentage of Births That Were Elective Deliveries by Mother's Pre-Pregnancy Body Mass Index (BMI).....	5
Number of Elective Deliveries by Mother's Ethnicity.....	6
Percentage of Births That Were Elective Deliveries by Mother's Ethnicity.....	6
Number of Elective Deliveries by Mother's Race (Non-Hispanic).....	6
Percentage of Births That Were Elective Deliveries by Mother's Race (Non-Hispanic)	6
Number of Elective Deliveries by Birth State	7
Percentage of Births That Were Elective Deliveries by Birth State	7
Notes	8

**Idaho Resident Singleton Births
Elective Inductions and Elective Cesarean Sections* Delivered Prior to 39 Weeks Gestation
2005-2014**

Total Singleton Births Delivered Before 39 Completed Weeks Gestation

	Total	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Total Births	76,663	8,520	8,746	9,049	9,052	7,672	7,225	6,484	6,927	6,462	6,526

Total Number of Inductions and Cesarean Sections Deliveries Before 39 Completed Weeks Gestation*

	Total	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Total Inductions	14,522	1,922	1,947	2,036	1,937	1,353	1,168	949	1,079	1,062	1,069
Total Cesareans (without induction)	18,618	2,031	1,996	2,201	2,310	1,882	1,848	1,592	1,666	1,551	1,541
Total Inductions and Cesareans	33,140	3,953	3,943	4,237	4,247	3,235	3,016	2,541	2,745	2,613	2,610

Percentage of Births With Inductions and Cesareans That Were Delivered Before 39 Completed Weeks Gestation*

	Total	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Percentage of All Births											
Total Inductions	18.9	22.6	22.3	22.5	21.4	17.6	16.2	14.6	15.6	16.4	16.4
Total Cesareans (without induction)	24.3	23.8	22.8	24.3	25.5	24.5	25.6	24.6	24.1	24.0	23.6
Total Inductions and Cesareans	43.2	46.4	45.1	46.8	46.9	42.2	41.7	39.2	39.6	40.4	40.0

Interpretation: In 2014, 2,610 births out of 6,526 singleton births (40.0 percent) delivered before 39 completed weeks gestation were delivered by induction or cesarean section.

Total Number of Elective Deliveries Before 39 Completed Weeks Gestation**

	Total	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Elective induction	7,120	1,150	1,102	1,051	1,011	627	489	385	463	449	393
Elective Cesarean Section	9,261	1,097	1,115	1,212	1,234	951	874	744	727	673	634
Total Elective Deliveries	16,381	2,247	2,217	2,263	2,245	1,578	1,363	1,129	1,190	1,122	1,027

Percentage of Births Delivered Before 39 Completed Weeks Gestation That Were Elective Deliveries**

	Total	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Percentage of All Births											
Elective Induction	9.3	13.5	12.6	11.6	11.2	8.2	6.8	5.9	6.7	6.9	6.0
Elective Cesarean Section	12.1	12.9	12.7	13.4	13.6	12.4	12.1	11.5	10.5	10.4	9.7
Total Elective Deliveries	21.4	26.4	25.3	25.0	24.8	20.6	18.9	17.4	17.2	17.4	15.7

Interpretation: In 2014, 1,027 out of 6,526 singleton births (15.7 percent) delivered prior to 39 completed weeks gestation were born by elective deliveries (either vaginal or cesarean section).

* Data for inductions and cesareans are mutually exclusive. If elective delivery was both induced and cesarean, then the elective delivery is considered elective induced delivery.

** Elective delivery: Non-medically indicated delivery before 39 completed weeks gestation. See Notes for information on medically-indicated births.

Note: Data in the tables above are based on the obstetric estimate (OE) of gestational age. Previously published data on gestational age were based on a calculation of the number of completed weeks from the date of the mother's last normal menses (LMP) to the baby's birth date. See Notes for more information.

**Idaho Resident Singleton Births
Elective Inductions and Elective Cesarean Sections* Delivered Prior to 39 Weeks Gestation
Three-Year Aggregate, 2012-2014**

Number of Elective Deliveries by Mother's County of Residence Urban, Rural, or Frontier Designation

	Total	Urban	Rural	Frontier
Total Births	19,915	13,791	1,068	5,056
Elective Induction	1,305	862	82	361
Elective Cesarean Section	2,034	1,316	136	582
Total Elective Deliveries	3,339	2,178	218	943

Percentage of Births That Were Elective Deliveries by Mother's County of Residence Urban, Rural, or Frontier Designation

	Total	Urban	Rural	Frontier
Elective Induction	6.6	6.3	7.7	7.1
Elective Cesarean Section	10.2	9.5	12.7	11.5
Total Elective Deliveries	16.8	15.8	20.4	18.7

Interpretation: From 2012-2014, 15.8 percent of babies delivered prior to 39 completed weeks gestation to mothers in urban counties were elective deliveries compared with 20.4 percent of mothers in rural counties and 18.7 percent of mothers in frontier counties.

Number of Elective Deliveries by Mother's District of Residence

	Total	District 1	District 2	District 3	District 4	District 5	District 6	District 7
Total Births	19,915	1,852	909	3,523	4,679	2,907	2,719	3,326
Elective Induction	1,305	142	71	129	219	142	301	301
Elective Cesarean Section	2,034	231	112	307	312	360	381	331
Total Elective Deliveries	3,339	373	183	436	531	502	682	632

Percentage of Births That Were Elective Deliveries by District of Residence

	Total	District 1	District 2	District 3	District 4	District 5	District 6	District 7
Elective Induction	6.6	7.7	7.8	3.7	4.7	4.9	11.1	9.0
Elective Cesarean Section	10.2	12.5	12.3	8.7	6.7	12.4	14.0	10.0
Total Elective Deliveries	16.8	20.1	20.1	12.4	11.3	17.3	25.1	19.0

Interpretation: From 2012-2014, 531 out of 4,679 babies (11.3 percent) delivered prior to 39 completed weeks gestation to mothers in District 4 were elective deliveries. In comparison, 25.1 percent of babies born prior to 39 completed weeks gestation to mothers in District 6 were delivered by elective delivery.

Data for induction and cesarean are mutually exclusive. If elective delivery was both induced and cesarean, then the elective delivery is considered elective induced delivery.

Elective delivery: Non-medically indicated delivery before 39 completed weeks gestation.

Note: Data in the tables above are based on the obstetric estimate (OE) of gestational age. Previously published data on gestational age were based on a calculation of the number of completed weeks from the date of the mother's last normal menses (LMP) to the baby's birth date. See Notes for more information.

**Idaho Resident Singleton Births
Elective Inductions and Elective Cesarean Sections* Delivered Prior to 39 Weeks Gestation
Three-Year Aggregate, 2012-2014**

Number of Elective Deliveries by Payment Source for Delivery

	Total	Self pay	Private Health Insurance	Medicaid	Other Government	Not Applicable/None/Other	Not stated
Total Births	19,915	1,216	9,165	8,662	653	160	59
Elective Induction	1,305	39	654	562	42	4	4
Elective Cesarean Section	2,034	110	968	863	67	19	7
Total Elective Deliveries	3,339	149	1,622	1,425	109	23	11

Percentage of Births That Were Elective Deliveries by Payment Source for Delivery

	Total	Self pay	Private Health Insurance	Medicaid	Other Government	Not applicable/none/other	Not stated
Elective Induction	6.6	3.2	7.1	6.5	6.4	2.5	NA
Elective Cesarean Section	10.2	9.0	10.6	10.0	10.3	11.9	NA
Total Elective Deliveries	16.8	12.3	17.7	16.5	16.7	14.4	NA

Interpretation: From 2012-2014, 1,622 babies (17.7 percent) delivered prior to 39 completed weeks gestation and paid by private insurance were elective deliveries. In comparison, 16.5 percent of babies born prior to 39 completed weeks gestation and paid by Medicaid were elective deliveries.

Number of Elective Deliveries by Mother's Pre-Pregnancy Body Mass Index (BMI)

	Total	Underweight	Normal Weight	Overweight	Obese	Morbidly Obese	Not Stated
Total Births	19,915	862	9,502	4,677	3,901	898	75
Elective Induction	1,305	70	655	283	252	39	6
Elective Cesarean Section	2,034	66	872	518	453	120	5
Total Elective Deliveries	3,339	136	1,527	801	705	159	11

Percentage of Births That Were Elective Deliveries by Mother's Pre-Pregnancy Body Mass Index (BMI)

	Total	Underweight	Normal Weight	Overweight	Obese	Morbidly Obese	Not Stated
Elective Induction	6.6	8.1	6.9	6.1	6.5	4.3	NA
Elective Cesarean Section	10.2	7.7	9.2	11.1	11.6	13.4	NA
Total Elective Deliveries	16.8	15.8	16.1	17.1	18.1	17.7	NA

Interpretation: From 2012-2014, 18.1 percent of babies delivered prior to 39 completed weeks gestation to mothers with pre-pregnancy body mass index considered obese were elective deliveries. In comparison, 16.1 percent of babies born prior to 39 completed weeks gestation to mothers with normal weight were delivered by elective delivery.

Data for induction and cesarean are mutually exclusive. If elective delivery was both induced and cesarean, then the elective delivery is considered elective induced delivery.

Elective delivery: Non-medically indicated delivery before 39 completed weeks gestation.

Note: Data in the tables above are based on the obstetric estimate (OE) of gestational age. Previously published data on gestational age were based on a calculation of the number of completed weeks from the date of the mother's last normal menses (LMP) to the baby's birth date. See Notes for more information.

**Idaho Resident Singleton Births
Elective Inductions and Elective Cesarean Sections* Delivered Prior to 39 Weeks Gestation
Three-Year Aggregate, 2012-2014**

Number of Elective Deliveries by Mother's Ethnicity

	Total	Non-Hispanic	Hispanic	Not stated
Total Births	19,915	16,284	3,583	48
Elective Induction	1,305	1,137	164	4
Elective Cesarean Section	2,034	1,661	367	6
Total Elective Deliveries	3,339	2,798	531	10

Percentage of Births That Were Elective Deliveries by Mother's Ethnicity

	Total	Non-Hispanic	Hispanic	Not stated
Elective Induction	6.6	7.0	4.6	NA
Elective Cesarean Section	10.2	10.2	10.2	NA
Total Elective Deliveries	16.8	17.2	14.8	NA

Interpretation: From 2012-2014, 17.2 percent of babies delivered prior to 39 completed weeks gestation to Non-Hispanic mothers were elective deliveries compared with 14.8 percent of Hispanic mothers.

Number of Elective Deliveries by Mother's Race (Non-Hispanic)

	Non-Hispanic						Not stated
	Total Non-Hispanic	White	Black	American Indian	Asian Pacific Islander	Other race or Multiple Race	
Total	16,284	15,269	152	357	451	41	14
Elective Induction	1,137	1,082	10	22	17	3	3
Elective Cesarean Section	1,661	1,560	18	42	33	7	1
Total Elective Deliveries	2,798	2,642	28	64	50	10	4

Percentage of Births That Were Elective Deliveries by Mother's Race (Non-Hispanic)

	Non-Hispanic						Not stated
	Total Non-Hispanic	White	Black	American Indian	Asian Pacific Islander	Other race or Multiple Race	
Elective Induction	7.0	7.1	6.6	6.2	3.8	7.3	NA
Elective Cesarean Section	10.2	10.2	11.8	11.8	7.3	17.1	NA
Total Elective Deliveries	17.2	17.3	18.4	17.9	11.1	24.4	NA

Interpretation: From 2012-2014, births to non-Hispanic Asian Pacific Islander mothers had the lowest percentage of elective deliveries (11.1 percent); births to non-Hispanic mothers of other and multiple race had the highest percent of elective deliveries (24.4 percent).

Data for induction and cesarean are mutually exclusive. If elective delivery was both induced and cesarean, then the elective delivery is considered elective induced delivery.

Elective delivery: Non-medically indicated delivery before 39 completed weeks gestation.

Note: Data in the tables above are based on the obstetric estimate (OE) of gestational age. Previously published data on gestational age were based on a calculation of the number of completed weeks from the date of the mother's last normal menses (LMP) to the baby's birth date. See Notes for more information.

**Idaho Resident Singleton Births
Elective Inductions and Elective Cesarean Sections* Delivered Prior to 39 Weeks Gestation
Three-Year Aggregate, 2012-2014**

Number of Elective Deliveries by Birth State

	Birth State						
	Total	Idaho	Oregon	Utah	Washington	Montana	Other State
Total	19,915	18,717	241	349	497	22	89
Elective Induction	1,305	1,214	21	23	38	3	6
Elective Cesarean Section	2,034	1,869	49	32	73	2	9
Total Elective Deliveries	3,339	3,083	70	55	111	5	15

Percentage of Births That Were Elective Deliveries by Birth State

	Birth State						
	Total	Idaho	Oregon	Utah	Washington	Montana	Other State
Elective Induction	6.6	6.5	8.7	6.6	7.6	13.6	6.7
Elective Cesarean Section	10.2	10.0	20.3	9.2	14.7	9.1	10.1
Total Elective Deliveries	16.8	16.5	29.0	15.8	22.3	22.7	16.9

Interpretation: From 2012-2014, 16.5 percent of deliveries in Idaho prior to 39 weeks gestation were elective deliveries; 29.0 percent of deliveries in Oregon prior to 39 weeks gestation were elective deliveries.

Data for induction and cesarean are mutually exclusive. If elective delivery was both induced and cesarean, then the elective delivery is considered elective induced delivery.

Elective delivery: Non-medically indicated delivery before 39 completed weeks gestation.

Note: Data in the tables above are based on the obstetric estimate (OE) of gestational age. Previously published data on gestational age were based on a calculation of the number of completed weeks from the date of the mother's last normal menses (LMP) to the baby's birth date. See Notes for more information.

Notes: Elective Deliveries:

There is no question on the birth certificate for elective procedures. Elective deliveries are based on singleton deliveries prior to 39 completed weeks gestation that were non-medically indicated by meeting the following criteria:

Selected conditions are absent:

prepregnancy diabetes, gestational diabetes, prepregnancy hypertension, gestational hypertension (preeclampsia, eclampsia) previous poor pregnancy outcome(s), clinical chorioamnionitis diagnosed during labor or maternal temperature $\geq 38^{\circ}\text{C}$ (100.4°F), anencephaly, meningomyelocele/spina bifida, cyanotic congenital heart disease, congenital diaphragmatic hernia, omphalocele, gastroschisis, Down syndrome, suspected chromosomal disorder, hypospadias, premature rupture of the membranes, prolonged labor, fetal intolerance, or non-vertex or other presentation.

Non-medically indicated inductions are considered elective inductions; non-medically indicated cesarean sections that were not induced and did not have an attempt of labor are considered elective cesarean sections. The number of elective inductions plus the number of elective cesarean sections is equal to the total number of elective deliveries.

Body Mass Index (BMI):

Body Mass Index formula: $[\text{weight (lb.)} / [\text{height (in)}]^2] \times 703$. Classifications are from the Center for Disease Control.

Underweight <18.5

Normal weight ≥ 18.5 and ≤ 25

Overweight > 25 and ≤ 30

Obese >30 and <40

Morbidly obese ≥ 40

Length of gestation:

The measure used to determine gestational age is the obstetric estimate of gestation at birth (OE).

For data year 2014, the National Center for Health Statistics (NCHS) transitioned from measuring gestational age based on the last normal menses (LMP) and the date of infant's birth to the new measure, the obstetric estimate of gestation at delivery (OE). This transition was due to increasing evidence of the greater validity of the OE compared with the LMP-based measure.

For more information please see:

http://www.cdc.gov/nchs/data/nvsr/nvsr64/nvsr64_05.pdf

Urban, Rural, and Frontier County Designation (based on 2011 population estimates):

Urban: County with population center of at least 20,000.

Rural: County with ≥ 6.0 persons per square mile (without a population center of 20,000).

Frontier: County with < 6.0 persons per square mile.

Primary Payment Source for Delivery:

Payment source for delivery at time birth record is filed with the State. Payment source may change after record is filed with the state. Data for Medicaid-paid deliveries may differ from Medicaid statistics. Other government includes Indian Health Services, CHAMPUS/TRICARE, and other government (federal, state, local).

Source: Bureau of Vital Records and Health Statistics; Division of Public Health; Idaho Department of Health and Welfare (Revised 2011).