

Table 19 (page 1 of 2). Neonatal mortality rates, by race and Hispanic origin of mother, and state: United States, average annual 1989–1991, 2001–2003, and 2004–2006

[Data are based on linked birth and death certificates for infants]

State	Not Hispanic or Latina								
	All races			White			Black or African American		
	1989–1991 ¹	2001–2003 ²	2004–2006 ²	1989–1991 ¹	2001–2003 ²	2004–2006 ²	1989–1991 ¹	2001–2003 ²	2004–2006 ²
Neonatal ³ deaths per 1,000 live births									
United States	5.7	4.6	4.5	4.6	3.8	3.7	11.1	9.2	9.1
Alabama	7.5	5.7	5.6	5.7	4.1	4.2	11.1	9.0	8.7
Alaska	4.1	3.0	3.4	3.7	*2.8	*2.6	*	*	*
Arizona	5.3	4.3	4.5	4.9	4.0	4.1	11.0	9.5	7.3
Arkansas	5.4	5.1	4.9	4.5	4.5	4.0	8.5	8.3	8.8
California	4.6	3.6	3.5	4.1	3.1	3.1	9.2	7.2	7.5
Colorado	5.0	4.3	4.5	4.7	3.5	3.8	10.9	11.0	9.7
Connecticut	5.7	4.4	4.4	4.2	3.5	3.0	12.5	9.2	9.7
Delaware	7.5	7.0	6.2	5.8	5.7	4.4	12.4	12.2	11.1
District of Columbia	14.1	7.7	8.7	*5.2	*	*	16.7	10.3	12.4
Florida	6.2	4.9	4.6	4.7	3.7	3.6	10.5	8.9	8.2
Georgia	7.9	5.8	5.5	5.5	4.1	3.8	12.0	9.2	8.9
Hawaii	4.3	4.8	4.4	3.5	*4.3	*2.9	*	*	*16.5
Idaho	5.3	3.9	4.2	5.2	3.8	4.1	*	*	*
Illinois	7.0	5.2	5.0	5.1	4.3	4.0	12.7	9.9	9.0
Indiana	6.0	5.0	5.3	5.2	4.6	4.5	11.5	9.0	11.3
Iowa	4.8	3.5	3.3	4.5	3.2	3.2	*10.5	*9.1	*
Kansas	4.9	4.7	4.6	4.6	4.0	4.3	8.3	11.2	8.4
Kentucky	5.0	4.0	4.1	4.6	3.9	3.7	8.9	5.7	7.5
Louisiana ⁴	6.3	6.2	5.9	4.8	4.3	3.8	8.5	9.0	9.1
Maine	4.5	4.0	4.5	4.2	3.9	4.4	*	*	*
Maryland	5.9	5.8	5.7	3.9	4.0	3.9	10.2	9.5	9.6
Massachusetts	4.9	3.7	3.7	4.1	3.0	3.1	10.4	7.8	7.8
Michigan	6.9	5.7	5.3	4.9	4.4	4.0	14.0	11.2	11.1
Minnesota	4.3	3.4	3.2	3.9	3.1	2.9	10.7	4.5	6.1
Mississippi	7.1	6.4	6.5	4.9	4.1	3.6	9.5	9.2	9.9
Missouri	6.0	5.4	4.8	5.0	4.4	4.1	10.6	11.1	9.2
Montana	4.6	4.4	3.1	4.2	4.4	2.7	*	*	*
Nebraska	4.5	4.4	3.7	4.2	4.0	3.3	*9.8	*11.2	*7.6
Nevada	4.3	3.4	4.0	3.8	3.0	3.7	*8.3	7.3	8.9
New Hampshire ⁴	4.3	3.0	4.3	4.4	2.9	4.0	*	*	*
New Jersey	5.8	4.2	3.8	4.5	2.8	2.7	11.4	8.9	7.9
New Mexico	5.0	3.9	3.7	4.8	3.8	4.2	*	*	*
New York	6.5	4.2	4.1	4.3	3.3	3.3	12.6	7.7	7.6
North Carolina	7.3	5.8	5.9	5.3	4.1	4.1	11.9	10.9	11.2
North Dakota	5.0	5.2	4.1	4.7	4.8	3.9	*	*	*
Ohio	5.5	5.3	5.2	4.8	4.3	4.1	9.8	10.4	11.1
Oklahoma ⁴	4.4	4.6	4.6	4.1	4.2	4.4	6.3	8.6	8.7
Oregon	4.4	3.7	3.8	4.0	3.7	3.8	*11.6	*	*
Pennsylvania	6.2	5.4	5.2	4.9	4.4	4.0	12.5	9.8	9.8
Rhode Island	6.4	5.1	4.8	5.3	3.7	3.3	*9.8	*9.6	*8.3
South Carolina	7.7	6.1	5.9	5.4	3.9	4.0	11.3	10.5	9.7
South Dakota	5.1	3.4	4.3	4.5	3.0	4.2	*	*	*
Tennessee	6.5	5.8	5.6	4.9	4.2	4.1	11.8	11.9	11.3
Texas	4.7	4.0	4.1	4.1	3.5	3.6	8.5	7.5	7.7
Utah	3.7	3.5	3.4	3.6	3.3	3.2	*	*	*
Vermont	4.1	3.7	3.3	3.9	3.8	3.3	*	*	*
Virginia	6.8	5.1	5.0	4.8	3.7	3.8	13.0	10.1	9.6
Washington	4.3	3.7	3.1	3.8	3.5	2.5	9.7	6.1	5.6
West Virginia	5.8	5.1	4.6	5.6	4.8	4.4	*9.7	*9.6	*
Wisconsin	5.1	4.7	4.2	4.6	3.8	3.4	9.1	11.2	11.2
Wyoming	3.9	3.8	5.0	3.8	3.7	5.0	*	*	*

See footnotes at end of table.

Table 19 (page 2 of 2). Neonatal mortality rates, by race and Hispanic origin of mother, and state: United States, average annual 1989–1991, 2001–2003, and 2004–2006

[Data are based on linked birth and death certificates for infants]

State	Hispanic or Latina ⁵			American Indian or Alaska Native ⁶			Asian or Pacific Islander ⁶		
	1989–1991 ¹	2001–2003 ²	2004–2006 ²	1989–1991 ¹	2001–2003 ²	2004–2006 ²	1989–1991 ¹	2001–2003 ²	2004–2006 ²
Neonatal ³ deaths per 1,000 live births									
United States	4.8	3.8	3.8	5.9	4.5	4.2	3.9	3.3	3.2
Alabama	*	*4.3	4.1	*	*	*	*	*	*
Alaska	*	*	*	*5.7	*3.2	*4.4	*	*	*
Arizona	5.0	4.3	4.7	5.4	4.3	3.9	*	*3.2	*4.2
Arkansas	*	*3.5	4.2	*	*	*	*	*	*
California	4.4	3.5	3.4	6.3	*3.7	*3.5	3.6	2.9	2.8
Colorado	4.4	4.8	5.3	*	*	*	*	*4.7	*4.3
Connecticut	5.3	4.9	6.0	*	*	*	*	*	*
Delaware	*	*	*	*	*	*	*	*	*
District of Columbia	*	*	*	*	*	*	*	*	*
Florida	5.1	3.6	3.5	*	*	*	*4.4	3.7	3.7
Georgia	*5.7	4.3	3.5	*	*	*	*5.3	5.3	4.0
Hawaii	*6.6	*4.4	*4.2	*	*	*	4.2	4.7	4.4
Idaho	*	*5.1	*4.3	*	*	*	*	*	*
Illinois	6.4	4.1	4.4	*	*	*	3.9	3.9	3.9
Indiana	*4.7	4.3	4.6	*	*	*	*	*	*
Iowa	*	*4.6	*3.5	*	*	*	*	*	*
Kansas	*5.4	4.9	4.0	*	*	*	*	*	*
Kentucky	*	*	*6.0	*	*	*	*	*	*
Louisiana ⁷	---	*	*3.7	*	*	*	*	*7.6	*
Maine	*	*	*	*	*	*	*	*	*
Maryland	*4.7	4.2	3.5	*	*	*	*4.5	*3.5	3.4
Massachusetts	5.8	4.7	4.7	*	*	*	*3.9	*2.6	*2.5
Michigan	5.2	5.1	4.8	*	*	*	*	3.9	3.9
Minnesota	*	3.9	3.1	*4.9	*	*	*3.2	*3.4	*2.5
Mississippi	*	*	*	*	*	*	*	*	*
Missouri	*	5.1	4.2	*	*	*	*	*4.5	*
Montana	*	*	*	*7.6	*	*4.8	*	*	*
Nebraska	*	*3.9	*3.5	*	*	*	*	*	*
Nevada	*4.1	2.7	3.1	*	*	*	*	*	*4.1
New Hampshire ⁷	---	*	*	*	*	*	*	*	*
New Jersey	5.1	4.2	3.7	*	*	*	*3.4	2.7	3.0
New Mexico	4.9	3.9	3.4	4.9	*3.4	*3.7	*	*	*
New York	6.4	3.9	3.6	*	*	*	4.1	2.4	2.6
North Carolina	*5.5	4.1	4.5	*7.7	*8.0	*8.6	*	*3.4	*4.8
North Dakota	*	*	*	*	*	*	*	*	*
Ohio	*5.4	6.1	3.6	*	*	*	*	*4.2	*2.8
Oklahoma ⁷	---	3.3	3.6	*3.7	3.8	4.0	*	*	*
Oregon	6.5	3.3	3.8	*	*	*	*5.3	*3.1	*3.4
Pennsylvania	7.3	5.4	5.6	*	*	*	*5.2	*3.2	4.0
Rhode Island	*4.9	*6.4	*6.2	*	*	*	*	*	*
South Carolina	*	*3.8	5.0	8.2	*	5.3	*	*	*
South Dakota	*	*	*	*8.2	*5.5	*5.3	*	*	*
Tennessee	*	4.4	4.5	*	*	*	*	*	*5.0
Texas	4.2	3.5	3.7	*	*	*	4.0	2.8	2.8
Utah	*3.6	4.3	3.9	*	*	*	*	*5.1	*4.9
Vermont	*	*	*	*	*	*	*	*	*
Virginia	*4.8	3.6	3.8	*	*	*	*4.1	3.6	3.1
Washington	4.9	3.5	3.4	*8.5	*5.0	*4.5	*2.7	3.1	2.8
West Virginia	*	*	*	*	*	*	*	*	*
Wisconsin	*3.9	5.0	4.2	*	*6.5	*	*	*4.9	*4.2
Wyoming	*	*	*	*	*	*	*	*	*

* Estimates are considered unreliable. Rates preceded by an asterisk are based on fewer than 50 deaths in the numerator. Rates not shown are based on fewer than 20 deaths in the numerator.

--- Data not available.

¹Rates based on unweighted birth cohort data.

²Rates based on period file using weighted data. See [Appendix I, National Vital Statistics System \(NVSS\), Linked Birth/Infant Death Data Set](#).

³Infants under 28 days of age.

⁴Rates for white and black are substituted for non-Hispanic white and non-Hispanic black for Louisiana for 1989, Oklahoma for 1989–1990, and New Hampshire for 1989–1991.

⁵Persons of Hispanic origin may be of any race. See [Appendix II, Hispanic origin](#).

⁶Includes persons of Hispanic origin.

⁷Rates for Hispanic origin exclude data from states not reporting Hispanic origin on the birth certificate for 1 or more years in a 3-year period.

NOTES: Starting with 2003 data, some states reported multiple-race data. The multiple-race data for these states were bridged to the single-race categories of the 1977 Office of Management and Budget standards for comparability with other states. See [Appendix II, Race](#). National linked files do not exist for 1992–1994.

SOURCE: CDC/NCHS, National Vital Statistics System, Linked Birth/Infant Death Data Set.