

**Table 24 (page 1 of 2). Neonatal mortality rates, according to race, Hispanic origin, geographic division, and State: United States, average annual 1989–91, 1996–98, and 1999–2001**

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

Geographic division and State	Not Hispanic or Latino								
	All races			White			Black or African American		
	1989–91 <sup>1</sup>	1996–98 <sup>2</sup>	1999–2001 <sup>2</sup>	1989–91 <sup>1</sup>	1996–98 <sup>2</sup>	1999–2001 <sup>2</sup>	1989–91 <sup>1</sup>	1996–98 <sup>2</sup>	1999–2001 <sup>2</sup>
	Neonatal <sup>3</sup> deaths per 1,000 live births								
United States . . . . .	5.7	4.8	4.6	4.6	3.9	3.8	11.1	9.3	9.2
New England <sup>4</sup> . . . . .	5.1	4.2	4.1	4.2	3.5	3.4	11.0	8.8	9.2
Connecticut . . . . .	5.7	5.1	4.7	4.2	3.7	3.6	12.5	11.0	9.8
Maine . . . . .	4.5	3.7	4.0	4.2	3.7	3.9	*	*	*
Massachusetts . . . . .	4.9	3.9	3.8	4.1	3.3	3.2	10.4	7.5	8.6
New Hampshire <sup>4</sup> . . . . .	4.3	3.4	3.6	4.4	3.2	3.1	*	*	*
Rhode Island . . . . .	6.4	4.9	4.9	5.3	3.7	3.6	*9.8	*	*9.5
Vermont . . . . .	4.1	4.8	3.6	3.9	4.6	3.7	*	*	*
Middle Atlantic . . . . .	6.3	4.8	4.6	4.6	3.5	3.6	12.3	9.3	8.8
New Jersey . . . . .	5.8	4.6	4.5	4.5	3.1	3.2	11.4	9.5	9.5
New York . . . . .	6.5	4.6	4.4	4.3	3.1	3.4	12.6	8.6	8.0
Pennsylvania . . . . .	6.2	5.3	5.1	4.9	4.2	4.1	12.5	10.9	10.0
East North Central . . . . .	6.3	5.3	5.3	4.9	4.3	4.3	12.1	10.3	10.6
Illinois . . . . .	7.0	5.6	5.6	5.1	4.3	4.3	12.7	10.8	10.8
Indiana . . . . .	6.0	5.3	5.1	5.2	4.7	4.6	11.5	10.0	9.0
Michigan . . . . .	6.9	5.4	5.6	4.9	4.1	4.0	14.0	10.5	11.5
Ohio . . . . .	5.5	5.2	5.3	4.8	4.4	4.4	9.8	9.4	10.2
Wisconsin . . . . .	5.1	4.7	4.5	4.6	3.8	3.8	9.1	10.9	10.2
West North Central . . . . .	5.0	4.5	4.3	4.5	4.0	3.7	10.2	9.8	9.8
Iowa . . . . .	4.8	4.5	3.7	4.5	4.2	3.4	*10.5	*10.8	*10.4
Kansas . . . . .	4.9	4.9	4.7	4.6	4.6	4.3	8.3	9.7	9.7
Minnesota . . . . .	4.3	3.8	3.7	3.9	3.5	3.2	10.7	8.3	7.3
Missouri . . . . .	6.0	4.9	4.9	5.0	3.9	3.8	10.6	10.1	11.0
Nebraska . . . . .	4.5	5.3	4.7	4.2	4.9	4.2	*9.8	*11.8	*8.3
North Dakota . . . . .	5.0	4.2	5.1	4.7	4.3	4.6	*	*	*
South Dakota . . . . .	5.1	3.8	4.0	4.5	3.4	3.7	*	*	*
South Atlantic . . . . .	6.9	5.7	5.5	4.9	4.1	4.0	11.7	9.9	9.7
Delaware . . . . .	7.5	5.8	6.5	5.8	4.1	4.6	12.4	11.9	12.4
District of Columbia . . . . .	14.1	9.1	9.7	*5.2	*	*	16.7	11.5	12.8
Florida . . . . .	6.2	4.7	4.7	4.7	3.9	3.6	10.5	8.2	8.5
Georgia . . . . .	7.9	6.0	5.7	5.5	4.1	4.0	12.0	9.7	9.3
Maryland . . . . .	5.9	6.1	5.8	3.9	3.8	3.6	10.2	10.7	10.0
North Carolina . . . . .	7.3	6.3	6.3	5.3	4.7	4.7	11.9	11.1	11.0
South Carolina . . . . .	7.7	6.5	6.4	5.4	4.0	4.1	11.3	10.9	10.8
Virginia . . . . .	6.8	5.4	4.9	4.8	4.0	3.7	13.0	9.9	9.2
West Virginia . . . . .	5.8	5.3	4.9	5.6	5.2	4.8	*9.7	*9.5	*
East South Central . . . . .	6.6	5.7	5.5	5.0	4.3	4.1	10.6	9.7	9.6
Alabama . . . . .	7.5	6.5	5.9	5.7	4.8	4.1	11.1	10.1	9.8
Kentucky . . . . .	5.0	4.7	4.4	4.6	4.3	4.2	8.9	8.1	6.6
Mississippi . . . . .	7.1	6.6	6.4	4.9	4.2	4.0	9.5	9.5	9.2
Tennessee . . . . .	6.5	5.3	5.5	4.9	4.1	4.1	11.8	9.8	10.6
West South Central <sup>4</sup> . . . . .	5.0	4.4	4.1	4.2	4.0	3.7	8.4	7.5	7.5
Arkansas . . . . .	5.4	5.5	4.7	4.5	4.7	4.1	8.5	8.3	7.4
Louisiana <sup>4</sup> . . . . .	6.3	5.9	6.1	4.8	4.2	4.1	8.5	8.4	8.8
Oklahoma <sup>4</sup> . . . . .	4.4	5.0	4.8	4.1	4.7	4.8	6.3	9.2	7.8
Texas . . . . .	4.7	3.9	3.6	4.1	3.6	3.2	8.5	6.4	6.7
Mountain . . . . .	4.8	4.3	4.1	4.4	3.9	3.7	10.1	8.8	8.9
Arizona . . . . .	5.3	4.8	4.4	4.9	4.5	4.1	11.0	9.6	11.2
Colorado . . . . .	5.0	4.5	4.3	4.7	4.0	3.8	10.9	9.6	10.0
Idaho . . . . .	5.3	4.4	4.6	5.2	4.1	4.3	*	*	*
Montana . . . . .	4.6	4.1	3.8	4.2	3.7	3.5	*	*	*
Nevada . . . . .	4.3	3.7	3.6	3.8	3.4	2.8	*8.3	*7.3	*6.1
New Mexico . . . . .	5.0	3.9	3.8	4.8	4.0	4.0	*	*	*
Utah . . . . .	3.7	3.7	3.3	3.6	3.5	3.2	*	*	*
Wyoming . . . . .	3.9	3.8	4.2	3.8	3.3	4.1	*	*	*
Pacific . . . . .	4.6	3.8	3.6	4.0	3.3	3.2	9.2	7.5	7.3
Alaska . . . . .	4.1	3.3	3.4	3.7	2.9	3.3	*	*	*
California . . . . .	4.6	3.8	3.6	4.1	3.4	3.1	9.2	7.7	7.5
Hawaii . . . . .	4.3	4.3	5.0	3.5	*3.7	*4.9	*	*	*
Oregon . . . . .	4.4	3.3	3.7	4.0	3.0	3.6	*11.6	*	*
Washington . . . . .	4.3	3.6	3.3	3.8	3.3	3.1	9.7	7.5	6.4

See footnotes at end of table.

**Table 24 (page 2 of 2). Neonatal mortality rates, according to race, Hispanic origin, geographic division, and State: United States, average annual 1989–91, 1996–98, and 1999–2001**

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

Geographic division and State	Hispanic or Latino <sup>5</sup>			American Indian or Alaska Native <sup>6</sup>			Asian or Pacific Islander <sup>6</sup>		
	1989–91 <sup>1</sup>	1996–98 <sup>2</sup>	1999–2001 <sup>2</sup>	1989–91 <sup>1</sup>	1996–98 <sup>2</sup>	1999–2001 <sup>2</sup>	1989–91 <sup>1</sup>	1996–98 <sup>2</sup>	1999–2001 <sup>2</sup>
Neonatal <sup>3</sup> deaths per 1,000 live births									
United States . . . . .	4.8	3.9	3.8	5.9	4.7	4.5	3.9	3.5	3.2
New England <sup>7</sup> . . . . .	5.5	5.7	5.0	*	*	*	4.4	*2.7	2.9
Connecticut . . . . .	5.3	6.4	5.8	*	*	*	*	*	*
Maine . . . . .	*	*	*	*	*	*	*	*	*
Massachusetts . . . . .	5.8	5.1	4.2	*	*	*	*3.9	*2.5	*2.5
New Hampshire <sup>7</sup> . . . . .	---	---	---	*	*	*	*	*	*
Rhode Island . . . . .	*4.9	*6.6	*5.7	*	*	*	*	*	*
Vermont . . . . .	*	*	*	*	*	*	*	*	*
Middle Atlantic . . . . .	6.2	4.5	4.3	*	*	*	4.1	3.0	2.4
New Jersey . . . . .	5.1	4.7	4.3	*	*	*	*3.4	3.2	2.3
New York . . . . .	6.4	4.2	4.1	*	*	*	4.1	2.9	2.5
Pennsylvania . . . . .	7.3	6.4	5.7	*	*	*	*5.2	*3.5	*2.4
East North Central . . . . .	5.9	4.8	4.8	*6.2	*5.3	*5.2	3.6	4.1	4.2
Illinois . . . . .	6.4	4.4	4.8	*	*	*	3.9	4.2	4.9
Indiana . . . . .	*4.7	*4.8	5.2	*	*	*	*	*	*
Michigan . . . . .	5.2	4.8	4.3	*	*	*	*	*3.4	*4.2
Ohio . . . . .	*5.4	5.9	5.7	*	*	*	*	*4.5	*
Wisconsin . . . . .	*3.9	8.0	4.2	*	*	*	*	*4.3	*3.9
West North Central . . . . .	5.3	4.5	4.8	6.1	5.8	5.3	4.6	4.1	4.3
Iowa . . . . .	*	*	*4.7	*	*	*	*	*	*
Kansas . . . . .	*5.4	*4.4	4.2	*	*	*	*	*	*
Minnesota . . . . .	*	*4.3	4.8	*4.9	*7.1	*5.4	*3.2	*4.0	5.2
Missouri . . . . .	*	*4.3	*4.3	*	*	*	*	*	*
Nebraska . . . . .	*	*6.3	*5.8	*	*	*	*	*	*
North Dakota . . . . .	*	*	*	*	*	*	*	*	*
South Dakota . . . . .	*	*	*	*8.2	*6.1	*4.5	*	*	*
South Atlantic . . . . .	5.2	3.5	3.7	7.4	7.1	6.2	4.6	3.5	3.8
Delaware . . . . .	*	*	*	*	*	*	*	*	*
District of Columbia . . . . .	*	*	*	*	*	*	*	*	*
Florida . . . . .	5.1	3.1	3.5	*	*	*	*4.4	*3.2	3.6
Georgia . . . . .	*5.7	3.7	3.4	*	*	*	*5.3	*	*4.7
Maryland . . . . .	*4.7	*4.4	4.7	*	*	*	*4.5	*5.0	*3.5
North Carolina . . . . .	*5.5	4.0	4.4	*7.7	*9.7	*9.0	*	*	*5.0
South Carolina . . . . .	*	*	*3.4	*	*	*	*	*	*
Virginia . . . . .	*4.8	4.6	3.4	*	*	*	*4.1	*3.8	*3.2
West Virginia . . . . .	*	*	*	*	*	*	*	*	*
East South Central . . . . .	*	4.6	3.8	*	*	*	*	*4.1	*4.3
Alabama . . . . .	*	*	*3.8	*	*	*	*	*	*
Kentucky . . . . .	*	*	*	*	*	*	*	*	*
Mississippi . . . . .	*	*	*	*	*	*	*	*	*
Tennessee . . . . .	*	*4.7	*4.2	*	*	*	*	*	*
West South Central <sup>7</sup> . . . . .	4.2	3.5	3.2	4.3	4.3	3.8	4.1	3.1	2.8
Arkansas . . . . .	*	*5.6	*	*	*	*	*	*	*
Louisiana <sup>7</sup> . . . . .	---	*	*	*	*	*	*	*	*
Oklahoma <sup>7</sup> . . . . .	---	*3.3	*2.8	*3.7	4.4	3.9	*	*	*
Texas . . . . .	4.2	3.5	3.2	*	*	*	4.0	3.1	2.5
Mountain . . . . .	4.7	4.6	4.2	5.8	4.2	4.5	4.6	3.9	3.4
Arizona . . . . .	5.0	5.0	4.2	5.4	4.1	5.0	*	*	*
Colorado . . . . .	4.4	5.0	4.5	*	*	*	*	*	*4.1
Idaho . . . . .	*	*4.8	*5.9	*	*	*	*	*	*
Montana . . . . .	*	*	*	*7.6	*	*6.6	*	*	*
Nevada . . . . .	*4.1	3.0	3.7	*	*	*	*	*	*
New Mexico . . . . .	4.9	3.9	3.8	4.9	*3.4	*2.8	*	*	*
Utah . . . . .	*3.6	4.1	3.8	*	*	*	*	*	*
Wyoming . . . . .	*	*	*	*	*	*	*	*	*
Pacific . . . . .	4.5	3.6	3.5	6.5	4.3	4.0	3.7	3.5	3.2
Alaska . . . . .	*	*	*	*5.7	*3.9	*4.2	*	*	*
California . . . . .	4.4	3.6	3.5	6.3	*4.5	*4.0	3.6	3.4	2.9
Hawaii . . . . .	*6.6	*4.5	*4.5	*	*	*	4.2	4.5	4.9
Oregon . . . . .	6.5	4.4	4.5	*	*	*	*5.3	*3.8	*2.9
Washington . . . . .	4.9	3.2	3.3	*8.5	*5.0	*3.5	*2.7	3.3	3.1

\* Estimates are considered unreliable. Rates preceded by an asterisk are based on fewer than 50 events. Rates not shown are based on fewer than 20 events.

--- Data not available. <sup>1</sup>Rates based on unweighted birth cohort data.

<sup>2</sup>Rates based on period file using weighted data. See Appendix I, National Vital Statistics System, Linked Birth/Infant Death Data Set.

<sup>3</sup>Infants under 28 days of age.

<sup>4</sup>Rates for white and black are substituted for non-Hispanic white and non-Hispanic black for Louisiana 1989, Oklahoma 1989–90, and New Hampshire 1989–91.

<sup>5</sup>Persons of Hispanic origin may be of any race.

<sup>6</sup>Includes persons of Hispanic origin.

<sup>7</sup>Rates 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.

NOTE: National linked files do not exist for 1992–94.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System, Linked Birth/Infant Death Data Set.