

**Table 15 (page 1 of 2). Neonatal mortality rates, by race and Hispanic origin of mother, and state: United States, average annual 1989–1991, 2003–2005, and 2006–2008**

Updated data when available, Excel, and PDF: <http://www.cdc.gov/nchs/hus/contents2012.htm#015>.

[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 <sup>1</sup>                             | 2003–2005 <sup>2</sup> | 2006–2008 <sup>2</sup> | 1989–1991 <sup>1</sup> | 2003–2005 <sup>2</sup> | 2006–2008 <sup>2</sup> | 1989–1991 <sup>1</sup>    | 2003–2005 <sup>2</sup> | 2006–2008 <sup>2</sup> |
|                                      | Neonatal <sup>3</sup> deaths per 1,000 live births |                        |                        |                        |                        |                        |                           |                        |                        |
| United States . . . . .              | 5.7  | 4.6                    | 4.4                    | 4.6                    | 3.7                    | 3.6                    | 11.1                      | 9.2                    | 8.7                    |
| Alabama . . . . .                    | 7.5  | 5.4                    | 6.0                    | 5.7                    | 4.0                    | 4.6                    | 11.1                      | 8.5                    | 9.0                    |
| Alaska . . . . .                     | 4.1  | 3.2                    | 3.1                    | 3.7                    | *2.6                   | *2.3                   | *                         | *                      | *                      |
| Arizona . . . . .                    | 5.3  | 4.5                    | 4.4                    | 4.9                    | 4.0                    | 4.0                    | 11.0                      | 7.4                    | 8.9                    |
| Arkansas . . . . .                   | 5.4  | 5.1                    | 4.5                    | 4.5                    | 4.3                    | 3.6                    | 8.5                       | 8.9                    | 8.5                    |
| California . . . . .                 | 4.6  | 3.5                    | 3.5                    | 4.1                    | 3.0                    | 3.0                    | 9.2                       | 7.2                    | 7.1                    |
| Colorado . . . . .                   | 5.0  | 4.6                    | 4.3                    | 4.7                    | 3.8                    | 3.6                    | 10.9                      | 11.9                   | 8.5                    |
| Connecticut . . . . .                | 5.7  | 4.0                    | 4.8                    | 4.2                    | 2.8                    | 3.8                    | 12.5                      | 8.3                    | 9.9                    |
| Delaware . . . . .                   | 7.5  | 6.4                    | 5.7                    | 5.8                    | 4.5                    | 4.1                    | 12.4                      | 12.1                   | 10.3                   |
| District of Columbia . . . . .       | 14.1   | 8.6                    | 8.4                    | *5.2                   | *                      | *3.9                   | 16.7                      | 11.9                   | 12.3                   |
| Florida . . . . .                    | 6.2  | 4.7                    | 4.6                    | 4.7                    | 3.5                    | 3.5                    | 10.5                      | 8.4                    | 8.0                    |
| Georgia . . . . .                    | 7.9  | 5.6                    | 5.2                    | 5.5                    | 3.9                    | 3.7                    | 12.0                      | 9.2                    | 8.3                    |
| Hawaii . . . . .                     | 4.3  | 4.7                    | 4.1                    | 3.5                    | *3.1                   | *3.1                   | *                         | *                      | *16.4                  |
| Idaho . . . . .                      | 5.3  | 3.9                    | 4.4                    | 5.2                    | 4.0                    | 4.0                    | *                         | *                      | *                      |
| Illinois . . . . .                   | 7.0  | 5.1                    | 4.8                    | 5.1                    | 4.1                    | 3.9                    | 12.7                      | 10.0                   | 8.5                    |
| Indiana . . . . .                    | 6.0  | 5.3                    | 4.6                    | 5.2                    | 4.6                    | 4.0                    | 11.5                      | 10.7                   | 10.2                   |
| Iowa . . . . .                       | 4.8  | 3.4                    | 3.4                    | 4.5                    | 3.2                    | 3.2                    | *10.5                     | *6.4                   | *5.6                   |
| Kansas . . . . .                     | 4.9  | 4.6                    | 4.7                    | 4.6                    | 4.4                    | 4.3                    | 8.3                       | 9.6                    | 9.2                    |
| Kentucky . . . . .                   | 5.0  | 4.0                    | 4.2                    | 4.6                    | 3.7                    | 4.0                    | 8.9                       | 7.0                    | 7.1                    |
| Louisiana <sup>4</sup> . . . . .     | 6.3  | 5.8                    | 5.5                    | 4.8                    | 4.0                    | 3.5                    | 8.5                       | 8.5                    | 8.6                    |
| Maine . . . . .                      | 4.5  | 4.4                    | 4.1                    | 4.2                    | 4.3                    | 4.1                    | *                         | *                      | *                      |
| Maryland . . . . .                   | 5.9  | 5.8                    | 5.8                    | 3.9                    | 3.7                    | 3.9                    | 10.2                      | 10.1                   | 9.5                    |
| Massachusetts . . . . .              | 4.9  | 3.7                    | 3.7                    | 4.1                    | 3.0                    | 3.0                    | 10.4                      | 7.5                    | 8.0                    |
| Michigan . . . . .                   | 6.9  | 5.6                    | 5.3                    | 4.9                    | 4.3                    | 4.1                    | 14.0                      | 11.6                   | 10.1                   |
| Minnesota . . . . .                  | 4.3  | 3.2                    | 3.6                    | 3.9                    | 2.9                    | 3.2                    | 10.7                      | 5.5                    | 7.5                    |
| Mississippi . . . . .                | 7.1  | 6.2                    | 6.1                    | 4.9                    | 3.5                    | 4.0                    | 9.5                       | 9.7                    | 8.6                    |
| Missouri . . . . .                   | 6.0  | 5.1                    | 4.8                    | 5.0                    | 4.4                    | 3.8                    | 10.6                      | 9.4                    | 10.2                   |
| Montana . . . . .                    | 4.6  | 3.5                    | 3.4                    | 4.2                    | 3.4                    | 3.1                    | *                         | *                      | *                      |
| Nebraska . . . . .                   | 4.5  | 3.7                    | 3.8                    | 4.2                    | 3.3                    | 3.5                    | *9.8                      | *9.4                   | *7.4                   |
| Nevada . . . . .                     | 4.3  | 3.7                    | 3.9                    | 3.8                    | 3.6                    | 3.3                    | *8.3                      | 7.7                    | 7.4                    |
| New Hampshire <sup>4</sup> . . . . . | 4.3  | 3.9                    | 3.4                    | 4.4                    | 3.6                    | 3.2                    | *                         | *                      | *                      |
| New Jersey . . . . .                 | 5.8  | 3.8                    | 3.6                    | 4.5                    | 2.6                    | 2.7                    | 11.4                      | 8.2                    | 7.4                    |
| New Mexico . . . . .                 | 5.0  | 3.6                    | 3.5                    | 4.8                    | 4.1                    | 3.9                    | *                         | *                      | *                      |
| New York . . . . .                   | 6.5  | 4.2                    | 3.7                    | 4.3                    | 3.4                    | 2.9                    | 12.6                      | 8.0                    | 7.5                    |
| North Carolina . . . . .             | 7.3  | 6.0                    | 5.5                    | 5.3                    | 4.2                    | 4.0                    | 11.9                      | 11.4                   | 9.9                    |
| North Dakota . . . . .               | 5.0  | 4.8                    | 4.4                    | 4.7                    | 4.5                    | 4.3                    | *                         | *                      | *                      |
| Ohio . . . . .                       | 5.5  | 5.3                    | 5.2                    | 4.8                    | 4.2                    | 4.1                    | 9.8                       | 10.7                   | 10.4                   |
| Oklahoma <sup>4</sup> . . . . .      | 4.4  | 4.6                    | 4.6                    | 4.1                    | 4.3                    | 4.3                    | 6.3                       | 8.8                    | 8.9                    |
| Oregon . . . . .                     | 4.4  | 3.8                    | 3.6                    | 4.0                    | 3.7                    | 3.5                    | *11.6                     | *                      | *                      |
| Pennsylvania . . . . .               | 6.2  | 5.2                    | 5.2                    | 4.9                    | 4.0                    | 3.9                    | 12.5                      | 9.5                    | 9.7                    |
| Rhode Island . . . . .               | 6.4  | 4.8                    | 5.0                    | 5.3                    | 3.5                    | 3.1                    | *9.8                      | *7.6                   | *8.9                   |
| South Carolina . . . . .             | 7.7  | 6.1                    | 5.4                    | 5.4                    | 4.2                    | 3.7                    | 11.3                      | 9.8                    | 8.7                    |
| South Dakota . . . . .               | 5.1  | 4.3                    | 4.2                    | 4.5                    | 4.1                    | 3.6                    | *                         | *                      | *                      |
| Tennessee . . . . .                  | 6.5  | 5.7                    | 5.3                    | 4.9                    | 4.0                    | 3.9                    | 11.8                      | 11.7                   | 10.5                   |
| Texas . . . . .                      | 4.7  | 4.2                    | 3.9                    | 4.1                    | 3.7                    | 3.2                    | 8.5                       | 8.0                    | 7.3                    |
| Utah . . . . .                       | 3.7  | 3.4                    | 3.4                    | 3.6                    | 3.1                    | 3.2                    | *                         | *                      | *                      |
| Vermont . . . . .                    | 4.1  | 3.8                    | 3.2                    | 3.9                    | 3.7                    | 2.9                    | *                         | *                      | *                      |
| Virginia . . . . .                   | 6.8  | 5.2                    | 4.9                    | 4.8                    | 3.9                    | 3.6                    | 13.0                      | 9.6                    | 9.4                    |
| Washington . . . . .                 | 4.3  | 3.4                    | 3.1                    | 3.8                    | 2.9                    | 2.5                    | 9.7                       | 5.6                    | 4.9                    |
| West Virginia . . . . .              | 5.8  | 4.8                    | 4.3                    | 5.6                    | 4.7                    | 4.0                    | *9.7                      | *                      | *11.0                  |
| Wisconsin . . . . .                  | 5.1  | 4.3                    | 4.3                    | 4.6                    | 3.5                    | 3.6                    | 9.1                       | 10.3                   | 9.9                    |
| Wyoming . . . . .                    | 3.9  | 4.6                    | 4.2                    | 3.8                    | 4.6                    | 3.9                    | *                         | *                      | *                      |

See footnotes at end of table.

**Table 15 (page 2 of 2). Neonatal mortality rates, by race and Hispanic origin of mother, and state: United States, average annual 1989–1991, 2003–2005, and 2006–2008**

Updated data when available, Excel, and PDF: <http://www.cdc.gov/nchs/hus/contents2012.htm#015>.

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

| State  | Hispanic or Latina <sup>5</sup> |                        |                        | American Indian or Alaska Native <sup>6</sup> |                        |                        | Asian or Pacific Islander <sup>6</sup> |                        |                        |
|--|---------------------------------|------------------------|------------------------|---|------------------------|------------------------|--|------------------------|------------------------|
|  | 1989–1991 <sup>1</sup>          | 2003–2005 <sup>2</sup> | 2006–2008 <sup>2</sup> | 1989–1991 <sup>1</sup>                        | 2003–2005 <sup>2</sup> | 2006–2008 <sup>2</sup> | 1989–1991 <sup>1</sup>                 | 2003–2005 <sup>2</sup> | 2006–2008 <sup>2</sup> |
| Neonatal <sup>3</sup> deaths per 1,000 live births |                                 |                        |                        |   |                        |                        |  |                        |                        |
| United States . . . . .                            | 4.8                             | 3.9                    | 3.7                    | 5.9   | 4.3                    | 4.3                    | 3.9                                    | 3.3                    | 3.2                    |
| Alabama . . . . .                                  | *                               | *4.4                   | 4.7                    | *   | *                      | *                      | *                                      | *                      | *                      |
| Alaska . . . . .                                   | *                               | *                      | *                      | *5.7  | *4.2                   | *4.2                   | *                                      | *                      | *                      |
| Arizona . . . . .                                  | 5.0                             | 4.8                    | 4.4                    | 5.4   | 4.2                    | 4.3                    | *                                      | *4.3                   | *4.8                   |
| Arkansas . . . . .                                 | *                               | *3.8                   | *3.7                   | *   | *                      | *                      | *                                      | *                      | *                      |
| California . . . . .                               | 4.4                             | 3.5                    | 3.3                    | 6.3   | *3.1                   | *4.2                   | 3.6                                    | 2.9                    | 3.0                    |
| Colorado . . . . .                                 | 4.4                             | 5.3                    | 5.1                    | *   | *                      | *                      | *                                      | *4.0                   | *4.1                   |
| Connecticut . . . . .                              | 5.3                             | 6.1                    | 4.6                    | *   | *                      | *                      | *                                      | *                      | *4.4                   |
| Delaware . . . . .                                 | *                               | *4.4                   | *4.3                   | *   | *                      | *                      | *                                      | *                      | *                      |
| District of Columbia . . . . .                     | *                               | *                      | *                      | *   | *                      | *                      | *                                      | *                      | *                      |
| Florida . . . . .                                  | 5.1                             | 3.5                    | 3.7                    | *   | *                      | *                      | *4.4                                   | 3.9                    | 4.0                    |
| Georgia . . . . .                                  | *5.7                            | 3.8                    | 3.3                    | *   | *                      | *                      | *5.3                                   | 4.1                    | 3.2                    |
| Hawaii . . . . .                                   | *6.6                            | *5.7                   | *3.3                   | *   | *                      | *                      | 4.2                                    | 4.8                    | 4.1                    |
| Idaho . . . . .                                    | *                               | *3.8                   | 5.5                    | *   | *                      | *                      | *                                      | *                      | *                      |
| Illinois . . . . .                                 | 6.4                             | 4.3                    | 4.3                    | *   | *                      | *                      | 3.9                                    | 3.3                    | 4.0                    |
| Indiana . . . . .                                  | *4.7                            | 4.9                    | 3.8                    | *   | *                      | *                      | *                                      | *                      | *                      |
| Iowa . . . . .                                     | *                               | *3.7                   | *4.3                   | *   | *                      | *                      | *                                      | *                      | *                      |
| Kansas . . . . .                                   | *5.4                            | 3.4                    | 4.9                    | *   | *                      | *                      | *                                      | *                      | *                      |
| Kentucky . . . . .                                 | *                               | *5.5                   | *3.9                   | *   | *                      | *                      | *                                      | *                      | *                      |
| Louisiana <sup>7</sup> . . . . .                   | ---                             | *                      | *2.3                   | *   | *                      | *                      | *                                      | *                      | *6.3                   |
| Maine . . . . .                                    | *                               | *                      | *                      | *   | *                      | *                      | *                                      | *                      | *                      |
| Maryland . . . . .                                 | *4.7                            | 3.8                    | 4.0                    | *   | *                      | *                      | *4.5                                   | *3.4                   | 4.1                    |
| Massachusetts . . . . .                            | 5.8                             | 4.9                    | 4.5                    | *   | *                      | *                      | *3.9                                   | *2.8                   | *2.2                   |
| Michigan . . . . .                                 | 5.2                             | 5.1                    | 4.9                    | *   | *                      | *                      | *                                      | 3.7                    | *3.6                   |
| Minnesota . . . . .                                | *                               | *2.9                   | 2.9                    | *4.9  | *                      | *4.6                   | *3.2                                   | *2.4                   | 3.9                    |
| Mississippi . . . . .                              | *                               | *                      | *4.8                   | *   | *                      | *                      | *                                      | *                      | *                      |
| Missouri . . . . .                                 | *                               | 4.6                    | *3.6                   | *   | *                      | *                      | *                                      | *4.0                   | *                      |
| Montana . . . . .                                  | *                               | *                      | *                      | *7.6  | *                      | *4.8                   | *                                      | *                      | *                      |
| Nebraska . . . . .                                 | *                               | *3.6                   | *3.5                   | *   | *                      | *                      | *                                      | *                      | *                      |
| Nevada . . . . .                                   | *4.1                            | 2.6                    | 3.8                    | *   | *                      | *                      | *                                      | *4.0                   | *3.2                   |
| New Hampshire <sup>7</sup> . . . . .               | ---                             | *                      | *                      | *   | *                      | *                      | *                                      | *                      | *                      |
| New Jersey . . . . .                               | 5.1                             | 3.7                    | 3.6                    | *   | *                      | *                      | *3.4                                   | 3.4                    | 2.0                    |
| New Mexico . . . . .                               | 4.9                             | 3.3                    | 3.4                    | 4.9   | *3.5                   | *2.8                   | *                                      | *                      | *                      |
| New York . . . . .                                 | 6.4                             | 3.8                    | 3.3                    | *   | *                      | *                      | 4.1                                    | 2.7                    | 2.3                    |
| North Carolina . . . . .                           | *5.5                            | 4.7                    | 4.5                    | *7.7  | *8.2                   | 10.2                   | *                                      | *4.4                   | *3.4                   |
| North Dakota . . . . .                             | *                               | *                      | *                      | *   | *7.5                   | *                      | *                                      | *                      | *                      |
| Ohio . . . . .                                     | *5.4                            | 4.8                    | 4.4                    | *   | *                      | *                      | *                                      | *3.3                   | *3.4                   |
| Oklahoma <sup>7</sup> . . . . .                    | ---                             | 4.0                    | 3.2                    | *3.7  | 3.6                    | 4.4                    | *                                      | *                      | *                      |
| Oregon . . . . .                                   | 6.5                             | 3.8                    | 3.8                    | *   | *                      | *                      | *5.3                                   | *3.9                   | *2.4                   |
| Pennsylvania . . . . .                             | 7.3                             | 5.5                    | 5.7                    | *   | *                      | *                      | *5.2                                   | 3.7                    | 4.5                    |
| Rhode Island . . . . .                             | *4.9                            | *5.8                   | *5.9                   | *   | *                      | *                      | *                                      | *                      | *                      |
| South Carolina . . . . .                           | *                               | 4.7                    | 4.3                    | *   | *                      | *                      | *                                      | *                      | *                      |
| South Dakota . . . . .                             | *                               | *                      | *                      | *8.2  | *5.6                   | *6.0                   | *                                      | *                      | *                      |
| Tennessee . . . . .                                | *                               | 5.0                    | 3.7                    | *   | *                      | *                      | *                                      | *4.7                   | *4.3                   |
| Texas . . . . .                                    | 4.2                             | 3.8                    | 3.7                    | *   | *                      | *                      | 4.0                                    | 2.8                    | 2.8                    |
| Utah . . . . .                                     | *3.6                            | 4.2                    | 3.6                    | *   | *                      | *                      | *                                      | *5.3                   | *4.4                   |
| Vermont . . . . .                                  | *                               | *                      | *                      | *   | *                      | *                      | *                                      | *                      | *                      |
| Virginia . . . . .                                 | *4.8                            | 4.0                    | 4.0                    | *   | *                      | *                      | *4.1                                   | 3.6                    | 3.0                    |
| Washington . . . . .                               | 4.9                             | 3.7                    | 3.5                    | *8.5  | *4.6                   | *4.5                   | *2.7                                   | 2.9                    | 2.7                    |
| West Virginia . . . . .                            | *                               | *                      | *                      | *   | *                      | *                      | *                                      | *                      | *                      |
| Wisconsin . . . . .                                | *3.9                            | 4.4                    | 4.1                    | *   | *                      | *                      | *                                      | *5.3                   | *4.1                   |
| 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.

<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 \(NVSS\), 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 for 1989, Oklahoma for 1989–1990, and New Hampshire for 1989–1991.

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

<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.

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, public-use and nonpublic-use Linked Birth/Infant Death Data Set. See [Appendix I, National Vital Statistics System \(NVSS\)](#).