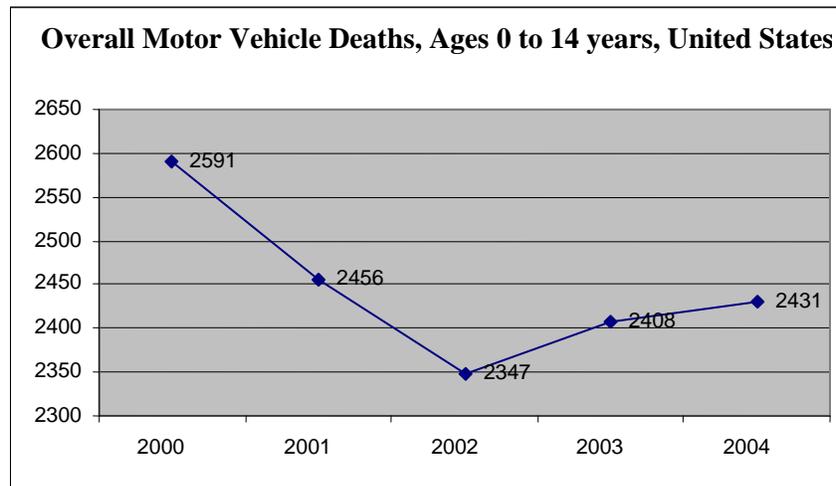


# Motor Vehicle Safety

**Key Facts:** Motor vehicle crashes are the leading cause of death to children ages 2 to 14<sup>1</sup> and the leading cause of injury-related death for children under 2.<sup>2</sup> When installed and used correctly, child safety seats and safety belts can prevent injuries and save lives. Young children restrained in child safety seats have an 80 percent lower risk of fatal injury than those who are unrestrained.<sup>3</sup>

- Each year, an estimated 2,446 children ages 14 years and under die in a motor vehicle incident.<sup>4</sup>



- In 2005, more than 1,400 child occupants (ages 0-14) died in motor vehicle crashes and nearly half were unrestrained.<sup>5</sup> In the same year, 203,000 child occupants were injured.<sup>6</sup>
- From 1999 to 2005, restraint use improved from 15 percent to 73 percent for children 0 to 8 years old.<sup>7</sup>
- An estimated 1,700 children's lives were saved between 1996 and 2002 due to being seated in a back seat.<sup>8</sup>
- Children are more likely to be properly restrained when the driver is properly restrained.<sup>9</sup>

## Who is at Risk

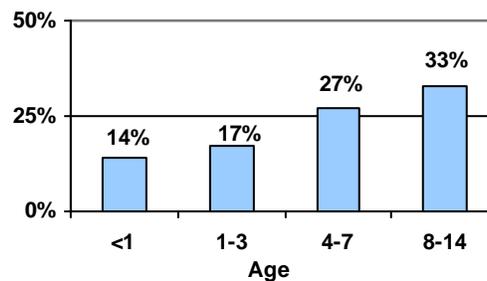
- There are approximately 42 percent more fatal crashes in rural settings than urban ones. Crashes in rural areas tend to be more severe.<sup>10</sup>
- African American children ages 4 to 7 have the lowest restraint use among children, an estimated 26 percent are not restrained while riding in a motor vehicle. Asian children have the highest restraint use, followed by white children, and then Hispanic children.<sup>11</sup>

- There were 159 reported fatal injuries associated with airbag deployment that occurred between 1993 and 2002 for children 0 to 12 years of age. All of these children were either unrestrained or improperly restrained.<sup>12</sup>
- Children 2 to 5 years of age who are prematurely in seat belts are four times more likely to suffer a serious head injury in a crash than those restrained in child safety seats or booster seats.<sup>13</sup>

### **Child Restraint System Effectiveness**

- Child safety seats reduce fatal injury by 71 percent for infants (less than 1 year old) and by 54 percent for toddlers (1 to 4 years old) in passenger cars.<sup>14</sup>
- Young children restrained in child safety seats have an 80 percent lower risk of fatal injury than those who are unrestrained.<sup>15</sup>
- In the United States, a \$46 child safety seat generates on average \$1,900 in benefits to society. A \$31 booster seat generates \$2,200 in benefits to society.<sup>16</sup>

#### **Unrestrained passenger vehicle occupants involved in fatal crashes, by age, 2005 (n=7,493)<sup>17</sup>**



- The overall critical misuse for child restraints is about 73 percent. Infant seats have the highest percent of critical misuse, followed by rear-facing convertible seats.<sup>18</sup>

### **Child Occupant Protection and Safety Restraint Use Laws**

- All 50 states and the District of Columbia have child restraint laws. In 39 states and the District of Columbia, all children younger than 16 are covered by either safety belt laws or child restraint laws.<sup>19</sup>
- As of November 2006, 38 states and the district of Columbia had upgraded their child restraint laws to require the use of booster seats or other appropriate child restraint device by children up to as old as 9.<sup>20</sup>
- Laws regulating safety belt use in 25 states and the District of Columbia are standard, or primary, meaning police may stop vehicles solely for safety belt violations.<sup>21</sup>

*Suggested Citation:* Safe Kids Worldwide (SKW). Motor vehicle Fact Sheet. Washington (DC): SKW, 2007.

---

<sup>1</sup> National Highway Traffic Safety Administration National Center for Statistics & Analysis, Research Note DOT HS 810 742, March 2007.

<sup>2</sup> National Center for Injury Prevention, WISQARS (2004), <http://www.cdc.gov/ncipc/wisqars>.

<sup>3</sup> Insurance Institute for Highway Safety, *Status Report* 32, no. 9 (Nov. 29, 1997).

<sup>4</sup> National Center for Health Statistics. Centers for Disease Control and Prevention. National Vital Statistics System. 2000 to 2004 mortality data. Hyattsville (MD): National Center for Health Statistics, 2007.

<sup>5</sup> National Highway Traffic Safety Administration National Center for Statistics & Analysis, *Traffic Safety Facts 2005: Children* (2005).

<sup>6</sup> National Highway Traffic Safety Administration National Center for Statistics & Analysis, *Traffic Safety Facts 2005: Children* (2005).

<sup>7</sup> *Partners for Child Passenger Safety Fact and Trend Report* (October 2006).

<sup>8</sup> State Farm Insurance Companies, Children's Hospital of Philadelphia, and the American Academy of Pediatrics, *CPS Issue Report: Partners for Child Passenger Safety* (May 2005).

<sup>9</sup> Cody BE, Mickalide AD, Paul HP, Colella JM. Child passengers at risk in America: A national study of restraint use. Washington (DC): National SAFE KIDS Campaign, 2002 February.

<sup>10</sup> National Highway Traffic Safety Administration, *Contrasting Rural and Urban Fatal Crashes 1994 – 2003* (December 2005): 59. <http://www-nrd.nhtsa.dot.gov/pdf/nrd-30/NCSA/Rpts/2005/809896.pdf>.

<sup>11</sup> IBID

<sup>12</sup> Alfredo Quinones-Hinojosa, MD, Peter Jun, MD, Geoffrey T. Manley, MD, PhD, Margaret M. Knudson, MD, and Nalin Gupta, MD, PhD. Airbag Deployment and Improperly Restrained Children: A Lethal Combination. *The Journal of TRAUMA Injury, Infection, and Critical Care*. 2005;59:729–733.

<sup>13</sup> "The Danger of Premature Graduation to Safety Belts for Young Children," *Pediatrics*, June 2000

<sup>14</sup> National Highway Traffic Safety Administration National Center for Statistics & Analysis, *Traffic Safety Facts 2005: Children* (2005).

<sup>15</sup> Insurance Institute for Highway Safety, *Status Report* 32, no. 9 (Nov. 29, 1997).

<sup>16</sup> Pacific Institute for Research and Evaluation, *Injury Prevention: What Works? A Summary of Cost-Outcome Analysis for Injury Prevention Programs* (November 28, 2005).

<sup>17</sup> Ibid.

<sup>18</sup> Lawrence E. Decina and Kathy H. Lococo, "Child Restraint System Use and Misuse in Six States," *Accident Analysis and Prevention* 37 (2005): 583-590.

<sup>19</sup> Ibid.

<sup>20</sup> Strengthening Child Passenger Safety Laws, NHTSA, 2007.

<http://www.nhtsa.dot.gov/people/injury/TSE/Laws/PDFs/810728W.pdf>

<sup>21</sup> Insurance Institute for Highway Safety, *Child Restraint, Belt LAWS as of February 2006*.