



## Teen and Young Driver Safety

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### The Issue:

Teen and young adult novice drivers are more likely to be involved in fatal crashes because they lack driving experience and tend to take greater risks. Compared to more experienced drivers, teens are not as skilled at recognizing hazards and controlling the vehicle, resulting in more loss-of-control and run-off-road crashes. Research has found that teen drivers are more prone to losing focus and are less likely to slow down to compensate for slick roads or poor visibility.<sup>1</sup>

### The Impact:

- Motor vehicle crashes are a leading killer of teens in the U.S.<sup>2</sup> In 2022, 4,856 young drivers (age 15–20) were involved in fatal crashes.<sup>3</sup> While this is a 5.5% decrease from 2021, the number of young drivers involved in fatal crashes is still up 22.4% from before the recent pandemic (2019).<sup>4</sup>
- On average, approximately eight teens were killed in the U.S. each day of 2022 as a result of motor vehicle crashes.<sup>5</sup>
- In crashes involving young drivers, fatalities totaled 5,339 in 2022.<sup>6</sup> While this is a 4.9% decrease from 2021, the number of people killed in crashes involving a young driver is still up 21.6% from before the recent pandemic (2019).<sup>7</sup>
  - 180,353 young drivers were injured in motor vehicle crashes in 2022.<sup>8</sup>
- The estimated economic cost of police-reported crashes involving young drivers 15–20 years old was \$40.8 billion (2002).<sup>9</sup> When adjusted for inflation only, these costs amount to \$71.05 billion in 2024 dollars.<sup>10</sup>
- Widespread public concern about young drivers exists, with 58% “extremely” or “very” concerned about inexperienced new young drivers, according to an opinion poll commissioned by Advocates for Highway and Auto Safety, conducted by ENGINE Insights, December 2021.<sup>11</sup>

### The Facts:

- The fatal crash rate per mile driven is nearly three times as high for 16- to 19-year-olds as it is for ages 20 and over. Risk is highest at ages 16–17.<sup>12</sup>
- Nearly 65% of teenage motor vehicle crash deaths in 2022 occurred between the hours of 3 p.m. and 3 a.m. The hours of 9 p.m. to midnight accounted for 20% of fatalities alone, the period of 6 p.m. to 9 p.m. accounted for 16%, and the period of midnight to 3 a.m. accounted for 15%.<sup>13</sup>

### Risky Driving

- In 2022, 6% of teen drivers (ages 15-19) who were involved in fatal crashes were distracted at the time of the crash.<sup>14</sup> However, there are issues of underreporting crashes involving cell phones because of gaps in police crash report coding, database limitations and other challenges.
- Researchers found teen drivers participating in a 2022 study were speeding in approximately 40% of trips and exhibited handheld phone use in more than 30% of trips. In 5% of trips, teens sped while using a handheld cellphone.<sup>15</sup>
- Drivers ages 15-20 have the highest proportion of distraction-related fatal crashes.<sup>16</sup>
- The Centers for Disease Control and Prevention Youth Risk Behavior Surveillance System (YRBSS) found 42.3% of high school students who drove in the previous 30 days reported sending a text or email while driving in 2023.<sup>17</sup> An earlier review of the YRBSS found students who reported frequent texting while driving were less likely to wear a seat belt, more likely to ride with a driver who had been drinking, and more likely to drink and drive.<sup>18</sup>

## **The Solutions: Laws, Technology and Roadway Safety Infrastructure**

### **Graduated driver licensing (GDL)**

GDL programs introduce teens to the driving experience gradually by phasing in full driving privileges over time and risk settings. These programs have been effective in reducing teen crash deaths. Optimal GDL laws have multiple components, including a three-stage licensing process and restrictions on nighttime driving, number and age of passengers, and cell phone usage. No state has a comprehensive GDL law which includes the optimal elements recommended by Advocates for Highway and Auto Safety in its annual *Roadmap to Safety*.<sup>19</sup> The Insurance Institute for Highway Safety (IIHS) has developed an online tool which estimates the effects of states changing their GDL laws.

- In states which have adopted GDL programs, studies have found overall crash reductions among teen drivers of about 10 to 30%.<sup>20</sup>
- Compared to GDL programs without any of the seven GDL components evaluated by the National Highway Traffic Safety Administration (NHTSA), fatal crash involvement rates were 16 to 21% lower in GDL programs that included age requirements plus a three-or-more-month waiting period before the intermediate stage, a nighttime driving restriction, and either supervised driving of at least 30 hours or a passenger restriction.<sup>21</sup>
- Fatal crash rates are 21% lower for 15- to 17-year-old drivers when prohibited from having any teenage passengers in their vehicles, compared to when two or more passengers were permitted.<sup>22</sup>
- For 16- and 17-year-old drivers, a 15% reduction in fatal crash incidence was associated with a limit of no more than one teen passenger for six months or longer, when compared to no passenger limit.<sup>23</sup>
- States with nighttime driving restrictions show crash reductions of up to 60% during restricted hours.<sup>24</sup>

- Delaying the minimum age for obtaining a learner’s permit was associated with lower fatal crash rates for 15- to 17-year-olds combined; a one-year delay (e.g., from age 15 to 16) reduced the fatal crash rate by 13%.<sup>25</sup>
- A minimum holding period of five to six months reduces fatal crash rates by 9%; however, extending the holding period to nine months to a year results in a 21% reduction.<sup>26</sup>
- A 2010 survey conducted by the IIHS shows parents favor GDL laws which are as strict as or even stricter than currently exist in any state. More than half think the minimum licensing age should be 17 or older.<sup>27</sup>
- Almost three-quarters (74%) of teens approve of a single comprehensive law, which incorporates the key elements of GDL programs.<sup>28</sup>
- Some teens delay obtaining a driver’s license. As a consequence, they are not required to participate in age specific GDL programs and do not benefit from the process. According to research by the Children’s Hospital of Philadelphia Center for Injury Research and Prevention (CHOP CIRP) and the AAA Foundation for Traffic Safety, “only 44% of respondents reported that they obtained a driver’s license within 12 months of the minimum age for licensing in their state, and only 54% reported they obtained a license before their 18<sup>th</sup> birthday.”<sup>29</sup>
- Aging out of GDL is a problem because drivers who begin the licensing process at age 18, 19 or 20 still have a high crash risk due to inexperience and brain development.<sup>30</sup> As a result, older teen novice drivers are missing out on, yet still need, the safety benefits of GDL programs.<sup>31</sup> A study showed that while GDL programs have likely contributed to a significant decline in teen driver crashes over the decade of 2005-2014, the improvements are not as strong for 18- to 20-year-olds who have aged out of GDL.<sup>32</sup>

### **Vehicle Safety Technology and Safety Standards Can Protect Vehicle Occupants and Other Road Users**

The U.S. Department of Transportation (DOT) must expeditiously advance minimum performance standards for vehicle safety technologies which can prevent or mitigate crashes and protect vehicle occupants and road users. These safety technologies should be standard, not optional, equipment in new vehicles. This action will achieve safety equity by both ensuring that the technology responds to and benefits all road users and that consumers buying new vehicles are not charged extra fees for the technology. Moreover, requiring equipment as standard can reduce the base cost of technology due to economies of scale.

#### Advanced Driver Assistance Systems (ADAS):

- According to the AAA Foundation for Traffic Safety, equipping all cars, pickup trucks, vans, minivans and SUVs with forward collision warning (FCW)/automatic emergency braking (AEB) which respond to pedestrians/bicyclists as well as vehicles could prevent 1.9 million crashes, nearly 900,000 injuries, and more than 4,700 deaths annually.<sup>33</sup>

- IIHS has found that if all vehicles in crashes with teen drivers were equipped with front crash prevention (FCW and/or AEB), LDW / LKA, and blind spot monitoring, 32% of crashes involving a teen driver, 27% of injured teen drivers, and 36% of teen driver deaths could be prevented.<sup>34</sup>
- The IIJA directs the U.S. DOT to issue Final Rules on minimum performance standards and requirements for ADAS technologies including AEB, FCW, lane departure warning (LDW) and lane keeping assist (LKA).<sup>35</sup>
  - In May 2024, U.S. DOT issued a Final Rule to require passenger vehicles be equipped with AEB that detect pedestrians.<sup>36</sup> NHTSA estimates that this action will save 362 lives and mitigate over 24,000 injuries annually. It is estimated to result in yearly cost benefit of between \$5.8-\$7.2 billion.<sup>37</sup> In July 2023, DOT issued a NPRM to require heavy vehicles weighing over 10,000 pounds to be equipped with AEB.<sup>38</sup>

### **Road Safety Infrastructure Improvements and the Safe System Approach<sup>39</sup>**

The Safe System Approach (SSA) assumes that humans will make mistakes and that we must anticipate this and make accommodations to account for limited human injury tolerances through five elements: Safe Vehicles, Safe Road Users, Safe Roads, Safe Speed and Post-Crash Care. By improving the design and operation of roadways to accommodate all road users safely, the SSA seeks to avoid conflicts between road users (drivers of vehicles, motorcycle riders, pedestrians, bicyclists, micromobility riders, wheelchair users and others) and minimize impact forces when they do occur, to prevent fatalities and serious injuries.

Infrastructure improvements consistent with the SSA to limit conflicts include:

- Curbing speed: This can be accomplished by reducing speed limits, employing automated enforcement to augment traditional enforcement, adding speed humps, using real-time speed feedback signs, performing road diets and installing roundabouts.
- Prioritizing infrastructure to promote safety: This includes changes such as adding lighting and sight lines, leading intervals, pedestrian hybrid beacons, curb extensions, accessible sidewalks, rumble strips, protected intersections, separated bike lanes, and road separations that consider all users.

Localities can advance these and other infrastructure improvements systemically by requiring their adoption as appropriate in all road design and maintenance projects.

The IIJA includes multiple provisions that advance the SSA including expanded funding for safety infrastructure upgrades. It also provides support and guidance for localities planning to apply for such, permits use of certain federal funds for automated enforcement programs in school and work zones, directs requirements for vehicle safety improvements including crash avoidance technologies, and ensures funds are used to improve vulnerable road user safety.

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- <sup>1</sup> Driving technology promises large safety benefits for teens; Insurance Institute for Highway Safety (IIHS), Sep. 2, 2021, available at <https://www.iihs.org/news/detail/driving-technology-promises-large-safety-benefits-for-teens>.
  - <sup>2</sup> Centers for Disease Control and Prevention (CDC), National Center for Injury Prevention and Control (NCIPC). WISQARS (Web-based Injury Statistics Query and Reporting System). U.S. Department of Health and Human Services; Available at <https://wisqars-viz.cdc.gov/8006/explore-data/home>. Accessed Sep. 28, 2023.
  - <sup>3</sup> Traffic Safety Facts 2022 Data: Young Drivers, NHTSA, DOT HS 813 601, available at <https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/813601>.
  - <sup>4</sup> Traffic Safety Facts 2022 Data: Young Drivers, NHTSA, DOT HS 813 601, available at <https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/813601>; and Traffic Safety Facts 2019 Data: Young Drivers, NHTSA, DOT HS 813 130, available at <https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/813130>.
  - <sup>5</sup> NHTSA: NCSA Fatality and Injury Reporting System Tool (FIRST), Query for All Persons Killed In Fatal Crashes, 2021 and 2022, by Age. Accessed Oct.3, 2024, <https://cdan.dot.gov/query>.
  - <sup>6</sup> Traffic Safety Facts 2022 Data: Young Drivers, NHTSA, DOT HS 813 601, available at <https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/813601>.
  - <sup>7</sup> Traffic Safety Facts 2022 Data: Young Drivers, NHTSA, DOT HS 813 601, available at <https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/813601>.
  - <sup>8</sup> Traffic Safety Facts 2022 Data: Young Drivers, NHTSA, DOT HS 813 601, available at <https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/813601>.
  - <sup>9</sup> Traffic Safety Facts 2002: Young Drivers, NHTSA, DOT HS 809 619, available at <https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/809619>.
  - <sup>10</sup> CPI Inflation Calculator, US Bureau of Labor Statistics, <https://data.bls.gov/cgi-bin/cpicalc.pl>; Based on Jan. 2002 to Jan. 2024 value.
  - <sup>11</sup> ENGINE’S CARAVAN SURVEY Public Opinion Poll, January 2022, available at <https://saferoads.org/wp-content/uploads/2022/01/Advocates-January-2022-Poll-Report-Final.pdf>.
  - <sup>12</sup> Insurance Institute for Highway Safety, Fatality Facts 2022: Teenagers website, available at <https://www.iihs.org/topics/fatality-statistics/detail/teenagers>.
  - <sup>13</sup> Insurance Institute for Highway Safety, Fatality Facts 2022: Teenagers website, available at <https://www.iihs.org/topics/fatality-statistics/detail/teenagers>.
  - <sup>14</sup> Teen Distracted Driving Data: Teens and Distracted Driving in 2022, NHTSA, DOT HS 813 558, Apr. 2024, available at <https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/813558>.
  - <sup>15</sup> Teen Drivers Often Unsafe on the Road with Speeding and Handheld Cellphone Use, American Academy of Pediatrics, Oct. 7, 2022, <https://www.aap.org/en/news-room/news-releases/conference-news-releases/teen-drivers-often-unsafe-on-the-road-with-speeding-and-handheld-cellphone-use/>.
  - <sup>16</sup> Traffic Safety Facts Research Note: Distracted Driving 2022, NHTSA, Apr. 2024, DOT HS 813 559, available at <https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/813559>.
  - <sup>17</sup> Youth Risk Behavior Surveillance — United States, 2023, available at <https://yrbs-explorer.services.cdc.gov/#/graphs?questionCode=H11&topicCode=C01&location=XX&year=2023>.
  - <sup>18</sup> Olsen, E.O., R.A. Shults, and D.K. Eaton, Texting while driving and other risky motor vehicle behaviors among US high school students. *Pediatrics*, 2013. 131(6): p. e1708-15, available at <https://pediatrics.aappublications.org/content/131/6/e1708>.
  - <sup>19</sup> Roadmap to Safety, Advocates for Highway and Auto Safety, available at: <https://saferoads.org/roadmap-reports/>.
  - <sup>20</sup> Graduated Licensing Laws and Fatal Crashes of Teenage Drivers: A National Study, Insurance Institute For Highway Safety, June 2010, available at <https://pubmed.ncbi.nlm.nih.gov/20544567/>.
  - <sup>21</sup> National Evaluation of Graduated Driver Licensing Programs, NHTSA, June 2006, DOT-HS-810-614, p. vi., available at [https://www.nhtsa.gov/sites/nhtsa.gov/files/gdl\\_6-20-2006\\_0.pdf](https://www.nhtsa.gov/sites/nhtsa.gov/files/gdl_6-20-2006_0.pdf).
  - <sup>22</sup> Graduated Licensing Laws and Fatal Crashes of Teenage Drivers: A National Study, Insurance Institute for Highway Safety, June 2010, available at <https://pubmed.ncbi.nlm.nih.gov/20544567/>.
  - <sup>23</sup> Masten, S.V., Fodd, R.D., Marshall, S.W., Graduated driver licensing program component calibrations and their association with fatal crash involvement, *Accident Analysis & Prevention*, V. 57, Aug. 2013, pp. 105-113, available at <https://pubmed.ncbi.nlm.nih.gov/23672925/>.
  - <sup>24</sup> Traffic Safety Facts: Laws, NHTSA, January 2008, DOT-HS-810-888W, available at <https://www.nhtsa.gov/sites/nhtsa.gov/files/810888.pdf>.
  - <sup>25</sup> Graduated Licensing Laws and Fatal Crashes of Teenage Drivers: A National Study, Insurance Institute for Highway Safety, June 2010, available at <https://pubmed.ncbi.nlm.nih.gov/20544567/>.
  - <sup>26</sup> Masten, S.V., Fodd, R.D., Marshall, S.W., Graduated driver licensing program component calibrations and their association with fatal crash involvement, *Accident Analysis & Prevention*, V. 57, Aug. 2013, pp. 105-113, available at <https://pubmed.ncbi.nlm.nih.gov/23672925/>.
  - <sup>27</sup> Williams, A.F; Braitman, K.A.; and McCart, A.T. 2010. Views of parents of teenagers about licensing policies: a national survey. Arlington, VA: Insurance Institute for Highway Safety, available at [https://www.researchgate.net/publication/49778293\\_Views\\_of\\_Parents\\_of\\_Teenagers\\_About\\_Licensing\\_Policies\\_A\\_National\\_Survey](https://www.researchgate.net/publication/49778293_Views_of_Parents_of_Teenagers_About_Licensing_Policies_A_National_Survey).
  - <sup>28</sup> Teens Sat “Yes” to Driving Restrictions that Make Roads Safe, Allstate Foundation, Mar. 9, 2011, available at <https://www.prnewswire.com/news-releases/teens-say-yes-to-driving-restrictions-that-make-roads-safe-117664988.html>.

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- <sup>29</sup> Timing of Driver’s License Acquisition and Reasons for Delay among Young People in the United States, 2012, AAA Foundation for Safety, Jul. 2013, available at <https://aaafoundation.org/timing-drivers-license-acquisition-reasons-delay-among-young-people-united-states-2012/>.
- <sup>30</sup> Mission Not Accomplished: Teen Safe Driving the Next Chapter, GHSA, October 2016, available at <https://www.ghsa.org/resources/teendriving16>.
- <sup>31</sup> Id.
- <sup>32</sup> Id.
- <sup>33</sup> Benson, A., Tefft, B.C., Svancara, A.M. & Horrey, W.J., September 2018. Potential Reduction in Crashes, Injuries and Deaths from Large-Scale Deployment of Advanced Driver Assistance Systems (Research Brief). Washington, D.C.: AAA Foundation for Traffic Safety, available at: <https://aaafoundation.org/potential-reduction-in-crashes-injuries-and-deaths-from-large-scale-deployment-of-advanced-driver-assistance-systems/>.
- <sup>34</sup> Teen driver crashes potentially preventable by crash avoidance features and teen-driver-specific safety technologies, Insurance Institute for Highway Safety (IIHS), , June, 2022, available at: <https://www.sciencedirect.com/science/article/pii/S0022437522000433>.
- <sup>35</sup> Infrastructure Investment and Jobs Act (IIJA, Pub. L. 117-58), November 15, 2021, Sections 24208 and 23010, available at: <https://www.govinfo.gov/content/pkg/PLAW-117publ58/pdf/PLAW-117publ58.pdf>.
- <sup>36</sup> 89 FR 39686 (May 9, 2024); available at <https://www.govinfo.gov/content/pkg/FR-2024-05-09/pdf/2024-09054.pdf>.
- <sup>37</sup> 89 FR 39686 (May 9, 2024); available at <https://www.regulations.gov/document/NHTSA-2023-0021-1065>.
- <sup>38</sup> 88 FR 43174 (Jul. 6, 2023); available at <https://www.regulations.gov/document/NHTSA-2023-0023-0001>.
- <sup>39</sup> “Recommendations of the Safe System Consortium,” Johns Hopkins University Center for Injury Research and Prevention, May 2021. Available here: <https://publichealth.jhu.edu/sites/default/files/2023-03/recommendations-of-the-safe-system-consortium.pdf>.