

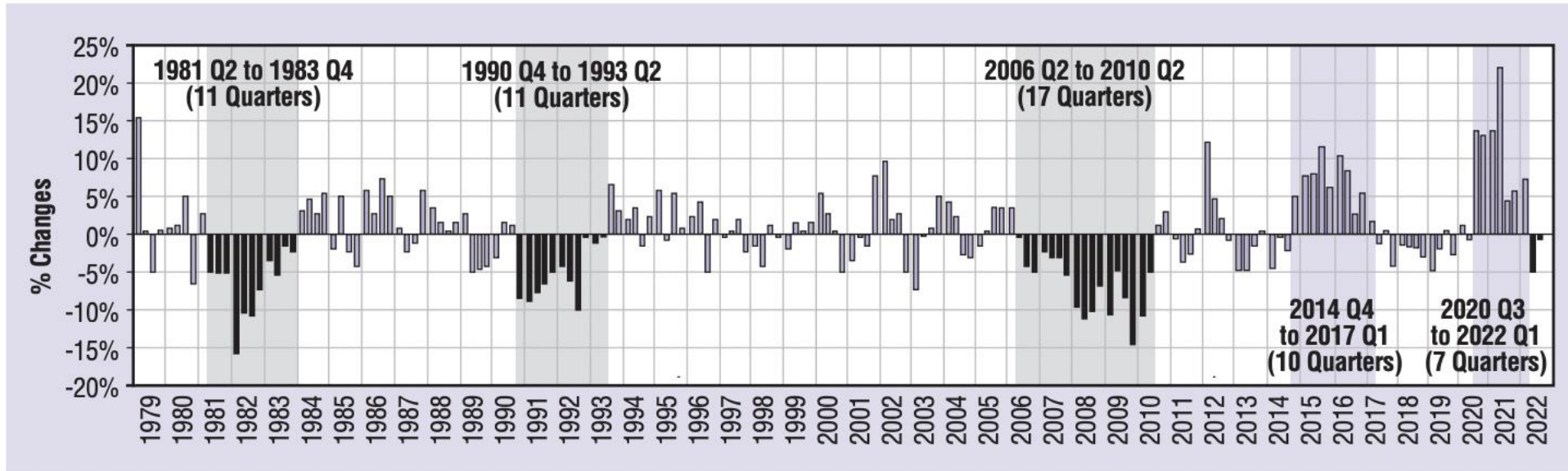
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Trends in Traffic Fatalities

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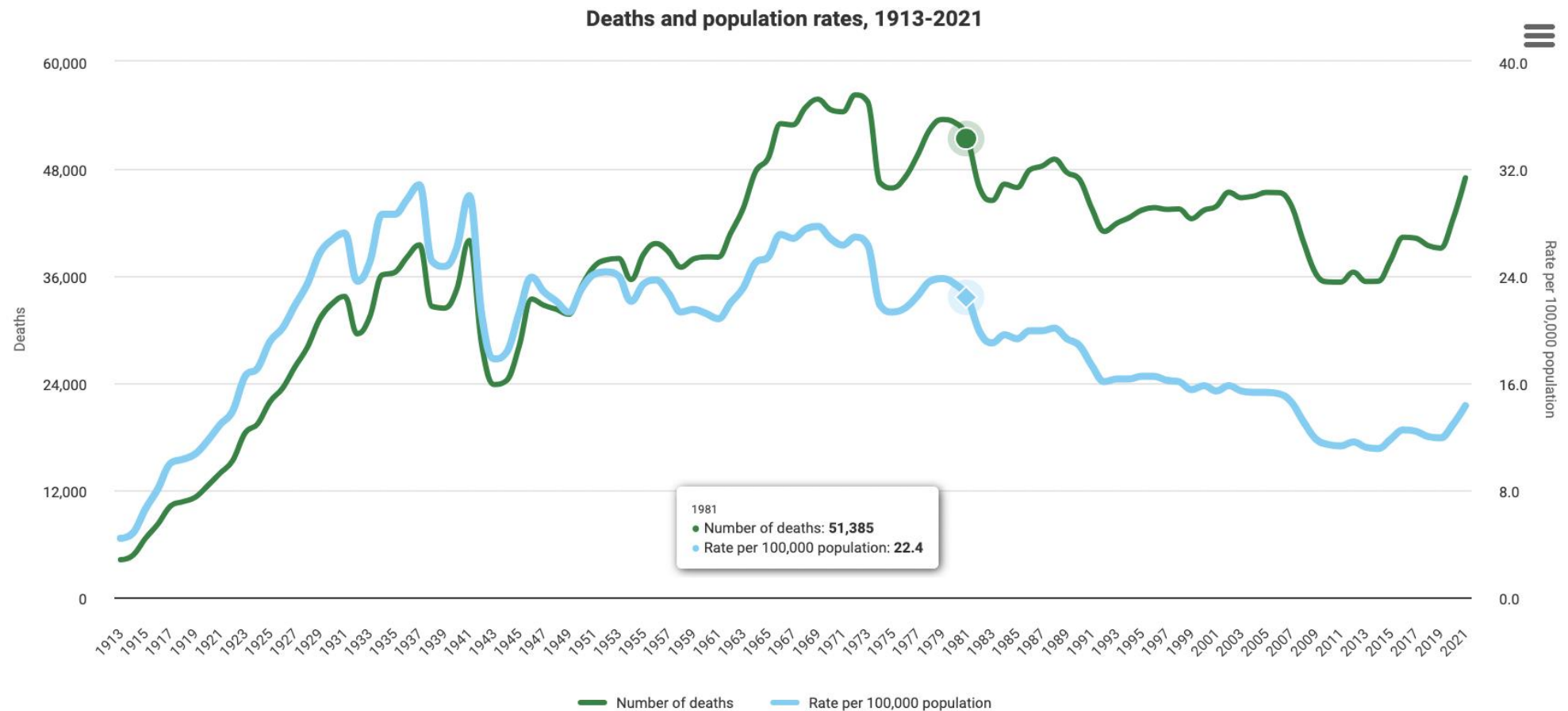
MVC (Motor Vehicle Crash) Fatalities 1979-2022

Figure 1: Percentage Change in Fatalities in Every Quarter as Compared to the Fatalities in the Same Quarter During the Previous Year



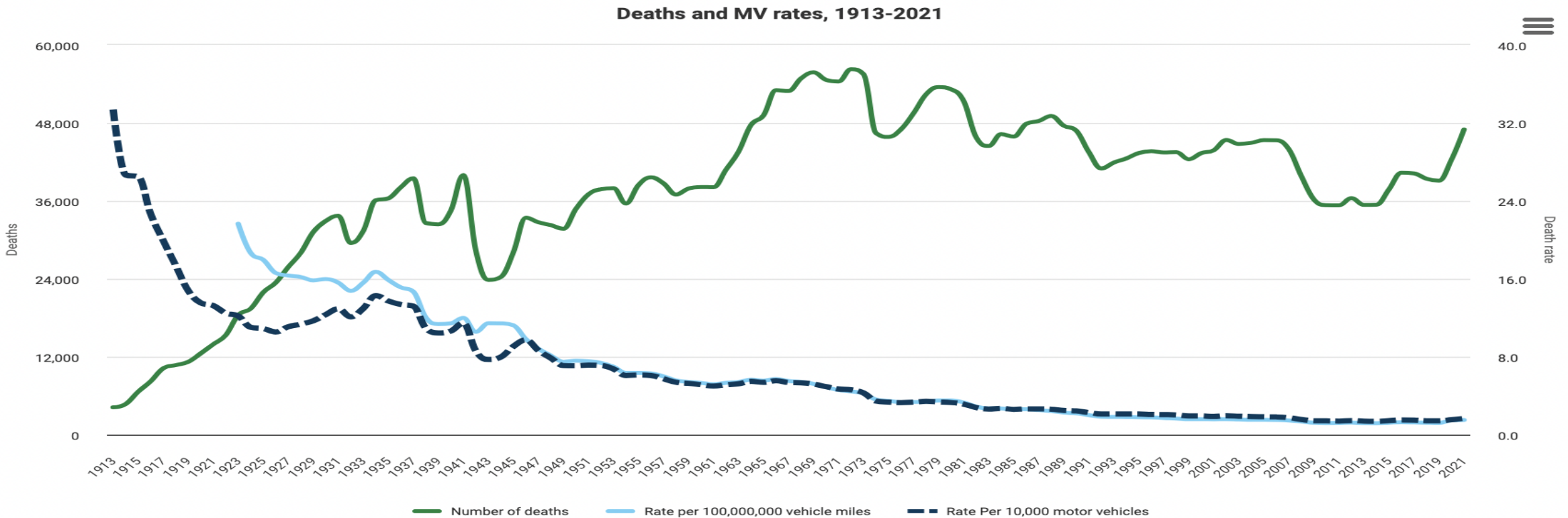
Sources: 1979-2019 FARS final file, 2020 FARS annual report file. 2021 and 2022 statistical projections.

MVC Fatalities 1913 to 2021: Numbers of deaths (top line) and rates/100K population



MVC Fatalities: rate/vehicular miles and per MV

Chart | Data Table



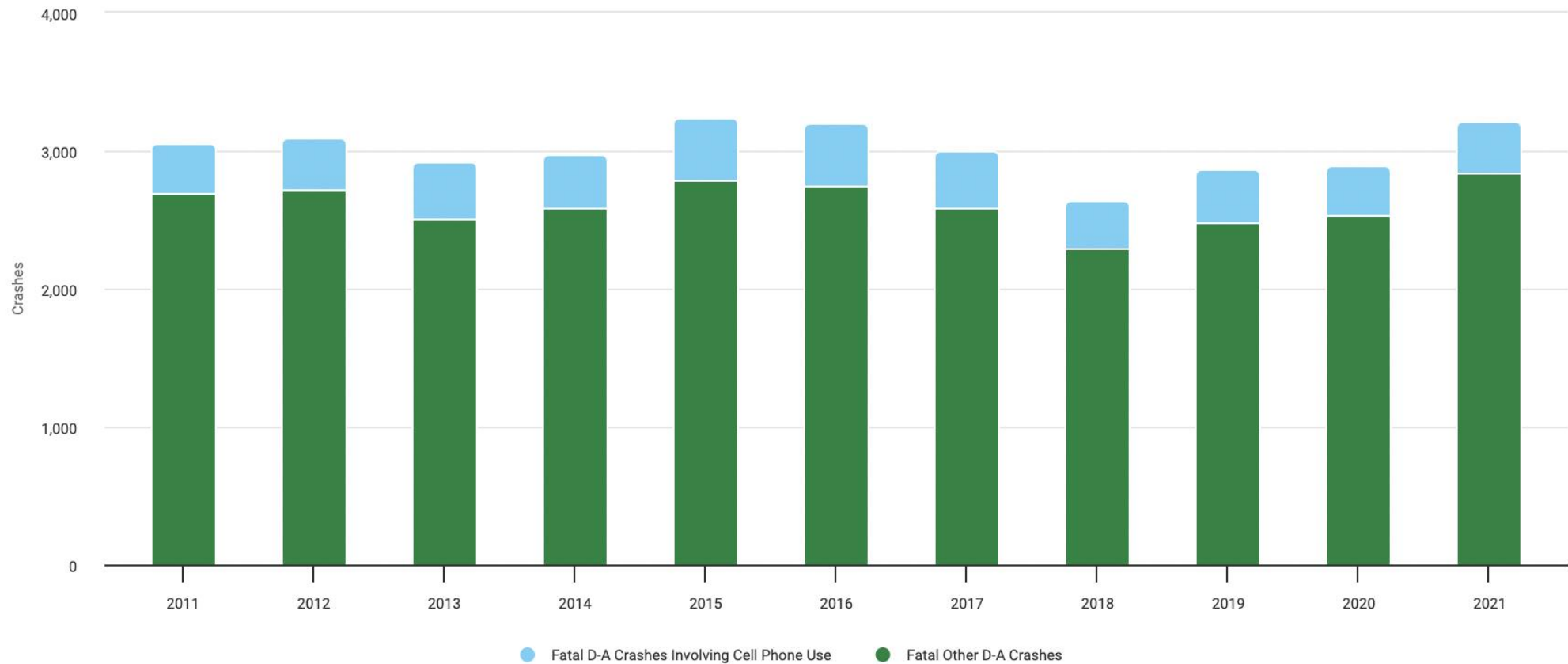


Leading causes of MCV

- Speeding***
- Reckless**
- Distracted**
- Drunk***
- Drugged (including prescription)**
- Demented (and other medical conditions)*
- Drowsy**
- Built Environment*
- Vehicular Failure*
- Other*

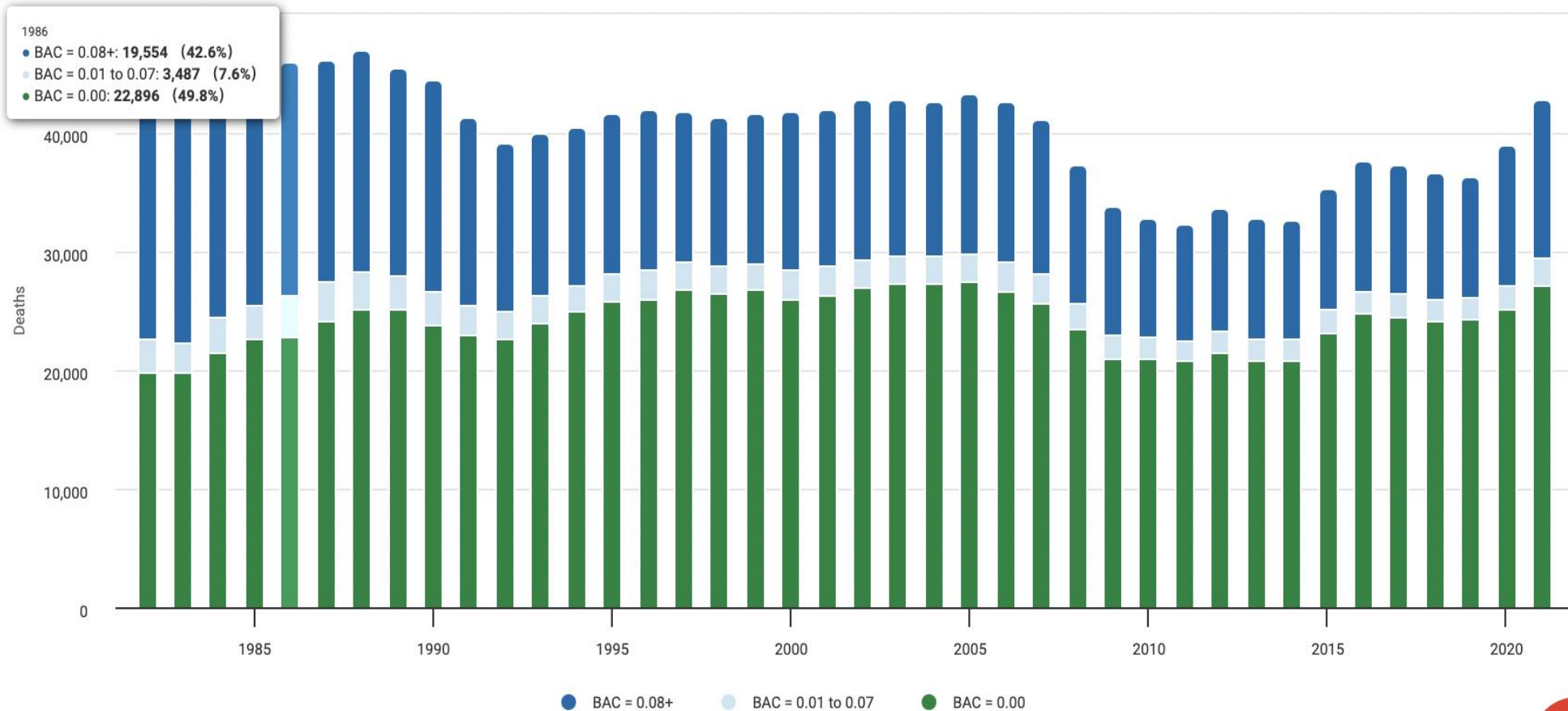
Distraction

Fatal motor-vehicle distraction-affected (D-A) traffic crashes by year, 2011-2021

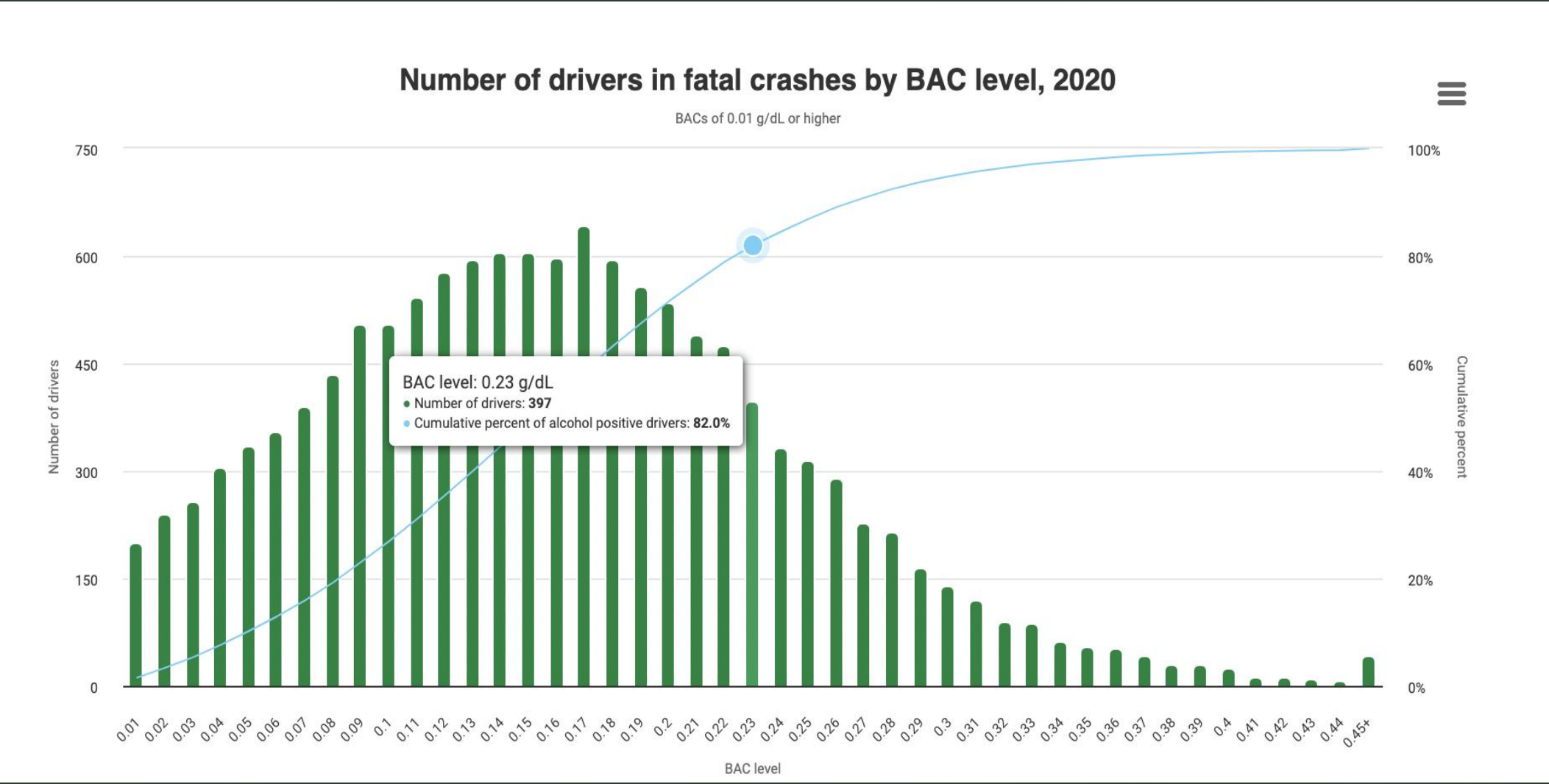


Alcohol

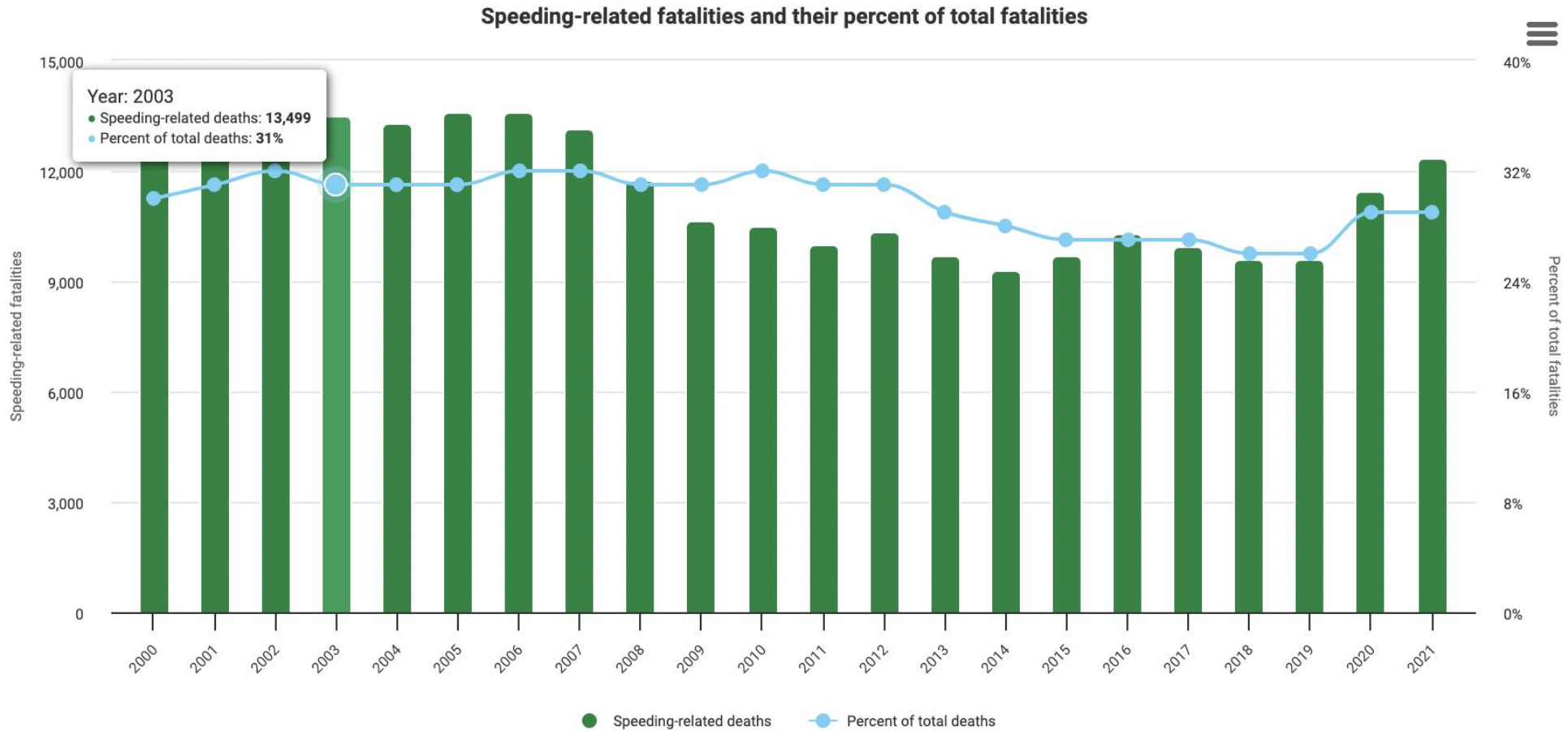
Motor vehicle deaths by alcohol involvement, 1982-2021



Crashes and BAC



Speeding



Interventions

- Laws
 - Lower BAC limit
 - Lower speed limits
 - Increase enforcement
 - Red light cameras
 - Increase consequences (points, jail time, loss of license)
- Education/changing cultural norms (seat belts~)
 - Multi-pronged
 - Social media, physicians, public health, print media
- Technological
 - Smarter cars/safer cars
 - Disable phones/social media on phones and cars
 - Feedback and accountability (fleets etc)

Example of laws to reduce fatalities

- CA is one of 6 states that requires mandated reporting of drivers with lapses of consciousness.
- This includes dementia, sleep apnea, seizures, hypoglycemia, etc.
- Physicians are grossly under-reporting despite ease of reporting (e.g. CMR)
- Our UCSD team uses webinars, social media, CA Medical Board newsletter, grand rounds to educate physicians on older driver safety and mandated reporting treds.ucsd.edu

CA Title 17 Section 2806-2810

“Every physician and surgeon shall report...every patient at least 14 years of age or older whom the physician and surgeon has diagnosed as having a case of a disorder characterized by lapses of consciousness.”

‘Lapse of Consciousness’ refers to conditions that involve:

- Reduction of alertness or responsiveness to external stimuli
- Inability to perform one or more activities of daily living
- Impaired sensory motor functions used to operate a motor vehicle

Health and Safety Code 103900

Mandatory reporting of conditions that may progress in severity and are associated with 'lapses of consciousness'

- Narcolepsy, Sleep Apnea
- Abnormal metabolic states
 - hypoglycemia
 - hyperglycemia
- Epilepsy
- Dementia, Alzheimer's Disease
- Brain Tumor
- Syncope

Conclusions

- MVC Fatalities have predicable and modifiable risk factors
- While vehicles, the built environment, and driving behaviors are all contributors to crashes, driver behavior accounts for 95% of fatalities
- Public health measures to address these behaviors are needed:
 - Mass public safety campaigns to address behaviors
 - Legislation
 - Education of all stakeholders

More Information

- Website for Training Research and Education for Driving Safety:
<https://treds.ucsd.edu/>
- TREDS training for health professionals on older driver safety:
<https://treds.ucsd.edu/hp-training/>
- Linda Hill, llhill@health.ucsd.edu