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A Content Analysis of Criminal Cases Concerning Unattended Children in Vehicles Between 1990 and 2021: Empirically-Based Suggestions for Reform

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A Content Analysis of Criminal Cases Concerning Unattended Children in Vehicles Between 1990 and 2021: Empirically-Based Suggestions for Reform*

Jacob W. Forston[†] and Henry F. Fradella[‡]

Leaving children unattended in vehicles is one of the leading causes of vehicle deaths not associated with a crash. Intended deaths that are purposefully caused via this phenomenon are quite rare. Rather, such fatalities are typically a result of a caregiver either forgetting a child in a vehicle or making a conscious decision to leave the child unattended without realizing the dangers attendant to that decision. Either way, the resultant harm sparks moral outrage in the media and the community. This, in turn, can prompt prosecution of caregivers under circumstances in which their actions may not align with the elements of the crimes with which they are charged.

* This Article was written during the summer of 2022. The statistics reported for children left unattended in vehicles were current as of the dates indicated in “last visited” parentheticals in applicable footnotes. Incidents occurring after August 5, 2022, are not included in the data presented in this Article.

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This Article synthesizes the extant literature on the phenomenon of children left unattended in vehicles (“CLUV”) by examining the dangers associated with the behavior and both the prevalence and conditions under which the phenomenon occurs. The Article then analyzes the laws that some state legislatures enacted to curb the CLUV phenomenon, focusing on criminal legal responses. By conducting an original, mixed-method content analysis of cases from across the United States, the Article presents a typology of how courts adjudicate CLUV cases that include both pediatric hyperthermia fatalities and those in which children survived CLUV incidents. Qualitative analysis reveal three overarching themes in CLUV cases, including those that involve disputes regarding the sufficiency of the evidence (often focusing on mens rea), questions of statutory construction, and challenges to the collateral consequences of convictions. Quantitative analyses demonstrate that across these three themes, the prosecution prevails in CLUV cases by a ratio of more than two to one. This appears to be due, in part, to the fact that in roughly one out of every five cases, the caregiver’s actions were attendant to either being under the influence of alcohol or other drugs at the time of the CLUV incident or participating in other criminal behaviors. Nonetheless, the cases in the research sample had a 32.6% reversal rate for sufficiency of the evidence claims—a rate quadruple that of the national reversal rate for all other crimes challenged on appeal on such grounds. This finding, in turn, suggests that prosecutors should rethink their approaches to CLUV cases. Additionally, legislatures could take steps to clarify the elements of CLUV-related offenses. Toward that end, the Article offers a suggested statute that would address the questions raised in the cases analyzed in this research. Finally, the Article concludes by offering and alternative ways to address children being harmed while unattended in vehicles using both formal and informal social controls.

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INTRODUCTION

On the morning of June 18, 2014, Justin Ross Harris buckled his twenty-two-month-old son, Cooper, into a rear-facing car seat and asked, “[a]re you ready to go to school?”¹ After spending all day at work, Harris made the discovery that no parent ever wants to make.² Harris never dropped off Cooper at his daycare facility; and as a result, the child died after spending the entire day trapped in the vehicle during the height of Georgia’s scorching summer heat.³ Justin Ross Harris was sentenced to life in prison without the

¹ See *Morning: Breakfast at Chick-fil-A*, JUSTIN ROSS HARRIS CASE, <http://justinrossharriscase.com/evidence/morning/> [<http://perma.cc/Y4P8-UQ3A>] (last visited June 9, 2022); AJ Willingham & Max Blau, *The Justin Ross Harris Case: What You Need to Know*, CNN (Oct. 3, 2016, 10:45 AM), <http://www.cnn.com/2016/10/03/us/justin-ross-harris-trial-explainer/index.html> [<http://perma.cc/EVG4-DURZ>].

² *Id.*

³ See Willingham & Blau, *supra* note 1.

possibility of parole for the death of Cooper Harris.⁴ In June of 2022, the Georgia Supreme Court reversed his conviction on the grounds that unfairly prejudicial information had been admitted into evidence at his trial that should have been excluded.⁵

The death of Cooper Harris quickly gained traction on social media and in the public sphere for a variety of reasons, two of which seem particularly salient. First, the way that law enforcement initially reported on this case fueled speculation that Harris had intentionally left Cooper in the car.⁶ Second, parents nationwide condemned Harris, claiming that they would never forget that their child was in the backseat of a vehicle.⁷

Harris routinely frequented the Chick-fil-A near his work *after* dropping off Cooper at daycare.⁸ The day of Cooper's death, Harris took Cooper out to Chick-fil-A for breakfast as a treat, thus altering his usual morning routine.⁹ Changes to a normal routine and the general strains and exhaustion relating to caring for a young child can result in the lack of awareness of the child which has been dubbed by medical researchers as "Forgotten Baby Syndrome."¹⁰

⁴ Daniella Silva, *Georgia Dad Justin Ross Harris Sentenced to Life in Son's Hot Car Death*, NBC NEWS (Dec. 5, 2016, 2:42 PM), <http://www.nbcnews.com/storyline/hot-cars-and-kids/georgia-dad-justin-ross-harris-sentenced-life-son-s-hot-n692086> [<http://perma.cc/AH4W-BMLS>].

⁵ *Harris v. State*, 875 S.E.2d 659, 665–66 (Ga. 2022). The wrongfully admitted evidence included information about Harris' sexual activities as circumstantial "bad character" evidence of his motive to have intentionally killed his son. *Id.* at 685–87, 693–94.

⁶ Jim Farmer, "Fatal Distraction" Views Justin Ross Harris Child-Death Case with a Different Lens, ARTSATL (Dec. 7, 2021), <http://www.artsatl.org/fatal-distraction-views-justin-ross-harris-child-death-case-with-a-different-lens/> [<http://perma.cc/J7XY-W6AL>] (discussing Susan Morgan Cooper's documentary about Harris case, *Fatal Distraction*); see also FATAL DISTRACTION (Gravitas Ventures 2021) (Susan Morgan Cooper, writer and director; Dee Bien, Boyd Cooper, Lara Thomas Ducey, Ernie Mnoian, Jane Mnoian & Susan Morgan Cooper, producers).

⁷ Amanda Washabaugh explained that such a response is common when people learn of pediatric heatstroke deaths occurring as a result of children being left unattended in vehicles. See Note, Amanda Washabaugh, *Child Vehicular Heatstroke Deaths: How the Criminal Legal System Punishes Grieving Parents over a Neurobiological Response*, 2020 CARDOZO L. REV. DE NOVO 195, 200 (citing Andrea Barbalich, *You'd Never Forget Your Child in the Car, Right?*, PARENTS (May 8, 2014), <http://www.parents.com/baby/safety/car/you-d-never-forget-your-child-in-the-car-right> [<http://perma.cc/Y94V-4EGH>] ("Whenever an unintentional hot car death hits the media, the public response is the same: How could a parent leave her child in a hot car?")); Aaron Gouveia, *Yes, You Could Forget Your Kid in the Car—I Did*, TIME (June 20, 2014, 10:56 AM), <http://time.com/2902520/child-forgotten-car-deaths/> [<http://perma.cc/LZ4D-88GK>].

⁸ *Harris*, 875 S.E.2d at 669.

⁹ *Id.*

¹⁰ See David M. Diamond, *When a Child Dies of Heatstroke After a Parent or Caretaker Unknowingly Leaves the Child in a Car: How Does It Happen and Is It a Crime?*, 59(2) MED. SCI. & L. 115, 118 (2019); Nicole Pelletiere, *'Forgotten Baby Syndrome': A Parent's Nightmare of Hot Car Death*, ABC NEWS (July 14, 2016, 4:32 AM), <http://abcnews.go.com/Lifestyle/forgotten-baby-syndrome-parents-nightmare-hot-car-death/story?id=40431117> [<http://perma.cc/G4SR-S4QW>] (defining and explaining "Forgotten Baby Syndrome").

Harris may have been continuing his usual morning routine of proceeding straight to work after going to Chick-fil-A, despite having just buckled Cooper into the rear-facing car seat. Harris' actions suggest that he genuinely thought he had brought Cooper to daycare, as evidenced by the fact that he texted his wife that afternoon to ask what time she planned to retrieve Cooper from daycare.¹¹ Prosecutors, however, argued that this justification was part of a ruse to make the death seem accidental.¹²

Harris' case demonstrates the complexity of incidents in which children were left unattended in vehicles ("CLUV"). Regardless of whether the child's caregiver truly forgets a child in a vehicle or makes a conscious decision to leave the child unattended, a fatal result sparks moral outrage.¹³ Part I of this Article presents a synthesis of the extant literature on the CLUV phenomenon. The first section in Part I summarizes the dangers of leaving children unattended in vehicles and the second section reports the prevalence and conditions under which this phenomenon occurs. The third section of Part I analyzes the laws that some state legislatures enacted to curb the CLUV phenomenon, focusing on criminal legal responses. And the fourth section explores the ways in which police and prosecutors typically act in such cases. The balance of the Article presents an original, empirical content analysis of how courts adjudicate CLUV cases. Importantly, our study is not limited to pediatric hyperthermia cases in which a child died. Rather, we examine the complete spectrum of CLUV cases, including those in which there were no fatalities. Part II presents the research methodology we used to conduct the study. Part III presents our results. And Part IV concludes with a discussion on the overall effectiveness of these laws and alternative ways to address children being harmed while unattended in vehicles.

I. REVIEW OF THE LITERATURE

Changes in vehicle technology, especially during the mid-1990s, increased the prevalence of CLUV.¹⁴ For instance, in an effort to make cars safer, airbags became standard equipment in

¹¹ See *Demeanor & Perception*, JUSTIN ROSS HARRIS CASE, <http://justinrossharriscase.com/evidence/demeanor/> [<http://perma.cc/YF94-EY7Q>] (last visited June 28, 2022).

¹² See *id.*

¹³ See, e.g., Gene Weingarten, *Fatal Distraction: Forgetting a Child in the Backseat of a Car Is a Horrifying Mistake. Is It a Crime?*, WASH. POST MAG. (Mar. 8, 2009), http://www.washingtonpost.com/lifestyle/magazine/fatal-distraction-forgetting-a-child-in-the-backseat-of-a-car-is-a-horrifying-mistake-is-it-a-crime/2014/06/16/8ae0fe3a-f580-11e3-a3a5-42be35962a52_story.html [<http://perma.cc/XR5S-KXCCL>].

¹⁴ See *id.*

vehicles during the 1990s.¹⁵ This effort undoubtedly saved the lives of many adult passengers, but it was a common source of fatalities for young children, particularly infants.¹⁶ Throughout nationwide campaigns in the mid-1990s, trends of front seat passenger fatalities began to decline for infants and younger children as more parents took the recommendation to have their children sit in the back seats, preferably in a car seat.¹⁷ Paradoxically, as airbag fatalities for children began to decline, the number of children dying from vehicular heatstroke increased during this time period.¹⁸ As law professor Erika Breitfeld explained, “[t]his [seating change] created a new danger because parents could no longer see their children while driving or exiting the vehicle. Amplifying the problem, children frequently fall asleep during car rides and thus remove potential triggers that indicate their presence, such as crying, cooing, babbling, or talking.”¹⁹

A. Dangers of CLUV

The National Highway Transportation Safety Administration estimates that leaving children in a vehicle is one of the leading causes of vehicle death not associated with a crash.²⁰ In fact, an average of thirty-eight children under the age of fifteen die of heatstroke in CLUV incidents each year.²¹ Given the potentially tragic outcome attendant to CLUV, multiple disciplines—including

¹⁵ Jerry L. Mashaw & David L. Harfst, *From Command and Control to Collaboration and Deference: The Transformation of Auto Safety Regulation*, 34 YALE J. REG. 167, 211 (2017). Federal law required all cars and light trucks sold in the United States to have front-seat airbags on both the driver and passenger sides by September 1, 1998. Intermodal Surface Transportation Efficiency Act of 1991, Pub. L. No. 102-240, § 2508, 105 Stat. 1914, 2084-85 (1991) (codified at 15 U.S.C. § 1392) (repealed 1994). That mandate was repealed just three years later after “reports of children being killed by airbags caused a national panic. The [National Highway Traffic Safety Administration] was blamed for prematurely forcing the technology into deployment.” Jesse Krompiew, *Safety First: The Case for Mandatory Data Sharing as a Federal Safety Standard for Self-Driving Cars*, 2017 U. ILL. J.L. TECH. & POL’Y 439, 456.

¹⁶ See Mashaw & Harfst, *supra* note 15, at 211; James L. Nichols, Donna D. Glassbrenner & Richard P. Compton, *The Impact of a Nationwide Effort to Reduce Airbag-Related Deaths Among Children: An Examination of Fatality Trends Among Younger and Older Age Groups*, 36 J. SAFETY RSCH. 309, 309 (2005).

¹⁷ See Nichols et al., *supra* note 16, at 317.

¹⁸ KIDS & CAR SAFETY, U.S. HOT CAR DEATH DATA ANALYSIS FROM THE KIDS AND CAR SAFETY NATIONAL DATABASE (1990-2021), at 5 (2022), <http://www.kidsandcars.org/wp-content/uploads/2020/07/Child-Hot-Car-Deaths-Data-Analysis.pdf> [<http://perma.cc/9ZGW-LMV2>].

¹⁹ Erika Breitfeld, *Hot-Car Deaths and Forgotten-Baby Syndrome: A Case Against Prosecution*, 25 BERKELEY J. CRIM. L. 72, 76 (2020).

²⁰ See *Child Safety*, NAT’L HIGHWAY TRAFFIC SAFETY ADMIN., <http://www.nhtsa.gov/road-safety/child-safety> [<http://perma.cc/5WDG-8WWM>] (last visited Dec. 20, 2022).

²¹ *Hot Car Deaths – Injury Facts*, NAT. SAFETY COUNCIL, <http://injuryfacts.nsc.org/motor-vehicle/motor-vehicle-safety-issues/hotcars/> [<http://perma.cc/2WRA-Z4WY>] (last visited June 10, 2022).

medicine and climatology—have come together to better understand what exactly happens when this phenomenon occurs.²²

The first of the major concerns attendant to CLUV is the weather conditions surrounding the incident.²³ Johannes Horak, an Austrian climatologist, and his colleagues created a model using the outdoor ambient temperature, the thickness of the car windshield and glass, as well as the wind levels outside the car.²⁴ These researchers also manipulated characteristics of the car such as the color, amount of insulation, and the amount the windows were left open allowing for airflow.²⁵ All conditions resulted in an expected increase in temperature consistent with what is known about trapping heat from solar radiation; but the condition with the windows rolled down took roughly double the time to reach maximum temperature.²⁶ Catherine McLaren, a medical scientist from Stanford, and her colleagues evaluated the effects of different levels of outdoor temperatures ranging from seventy-two degrees to ninety-six degrees Fahrenheit.²⁷ These researchers found that regardless of the initial temperature, the internal temperature rate change was the same.²⁸ These studies challenge two of the most common misconceptions about CLUV: (1) that opening a window will make the interior temperature more tolerable; and (2) that engaging in the conduct is only dangerous when ambient outside air temperatures are close to extremes.²⁹

Infants are particularly vulnerable to heat-related deaths because the amount of surface area required to properly regulate

²² See Jan Null, NO HEAT STROKE [hereinafter Null, NO HEAT STROKE], <http://www.noheatstroke.org> [<http://perma.cc/NX7Z-3ZSG>] (last updated Oct. 3, 2022).

²³ See Johannes Horak, Ivo Schmerold, Kurt Wimmer & Gunther Schaubberger, *Cabin Air Temperature of Parked Vehicles in Summer Conditions: Life-Threatening Environment for Children and Pets Calculated by a Dynamic Model*, 130 THEORETICAL APPLIED CLIMATOLOGY 107, 107 (2017); see also Catherine McLaren Jan Null, & James Quinn, *Heat Stress from Enclosed Vehicles: Moderate Ambient Temperatures Cause Significant Temperature Rise in Enclosed Vehicles*, 116 PEDIATRICS 109, 109 (2005); see also Jan Null, *The Tragedy of Pediatric Vehicular Heatstroke*, 71 WEATHERWISE 29, 29 (2018).

²⁴ See Horak et al., *supra* note 23, at 108–09.

²⁵ See *id.* at 109–11.

²⁶ See *id.* at 112.

²⁷ See McLaren et al., *supra* note 23, at 109.

²⁸ *Id.* at 110.

²⁹ See generally *Prevent Hot Car Deaths: Where's Baby? Look Before You Lock*, NAT'L HIGHWAY TRAFFIC SAFETY ADMIN., <http://www.nhtsa.gov/campaign/heatstroke> [<http://perma.cc/3BPA-EYRK>] (last visited Feb. 25, 2023) (noting that leaving windows open will not prevent heatstroke); Emilee Speck, *When Seconds Matter: Children Experience Heatstroke Symptoms Within Minutes of Being in a Hot Car*, FOX WEATHER (June 15, 2022, 8:00 AM), <http://www.foxweather.com/learn/when-minutes-matter-children-experience-heatstroke-symptoms-in-a-hot-car-within-minutes> [<http://perma.cc/QSH3-A7ER>] (explaining that “it doesn't have to be a 90-degree or even 80-degree day for it to be dangerous for a child left alone in a hot car”).

temperature is not fully developed.³⁰ To demonstrate this issue, researchers created a model using information from infant vehicular heat stroke cases in Texas in which parents had forgotten a baby in a vehicle while on their way to work.³¹ Despite variation in morning temperatures and solar radiation across the four seasons, when a one-year-old infant was left in a vehicle at 8:00 AM, death occurred no later than 2:00 PM in winter and as early as 10:05 AM in summer.³² Even when an infant was not left unattended at the start of a workday, if a vehicle was exposed to direct sunlight, infants could begin to suffer health damage in as little as five minutes and die of heat stroke within an hour.³³ These findings illustrate the clear need to increase awareness of the dangers of CLUV and to also find ways of preventing it from happening.

B. Prevalence and Characteristics of CLUV Incidents

Much of what is known about pediatric vehicular heatstroke cases comes from the organization “No Heat Stroke.”³⁴ Researcher and meteorologist Jan Null is the founder of the organization and has compiled a robust database with extensive details documenting over 920 cases of pediatric vehicular heat stroke

³⁰ See Pietro Ferrara et al., *Children Left Unattended in Parked Vehicles: A Focus on Recent Italian Cases and a Review of Literature*, 39 ITALIAN J. PEDIATRICS 71, 71 (2013). A local news station in Tampa, Florida interviewed physician Tiffany Hernandez of the Pediatric Health Care Alliance who explained that children under the age of four are at high risk because their bodies heat up at a rate three to five times faster than adults. Specifically, “[a] child’s thermoregulatory system is not fully developed so they absorb more heat and are less able to lower their body temperature by sweating. When a child’s internal temperature is 104 degrees, their organs start shutting down. At 107 degrees, they could die.” *Warning: Kids Heat Up Faster than Adults in Cars*, WTSP NEWS (Aug. 5, 2016, 10:51 PM), <http://www.wtsp.com/article/news/health/warning-kids-heat-up-faster-than-adults-in-cars/67-289255696> [<http://perma.cc/CQL7-2CHU>].

³¹ See, e.g., Andrew J. Grundstein, Sara V. Duzinski, David Dolinak, Jan Null & Sujit S. Iyer, *Evaluating Infant Core Temperature Response in a Hot Car Using a Heat Balance Model*, 11 FORENSIC SCI., MED. & PATHOLOGY 13, 13 (2014) [hereinafter *Evaluating Infant Core Temperature*].

³² *Id.*

³³ See Andrew J. Grundstein, Sara V. Duzinski & Jan Null, *Impact of Dangerous Microclimate Conditions Within an Enclosed Vehicle on Pediatric Thermoregulation*, 127 THEORETICAL APPLIED CLIMATOLOGY 103, 103 (2015) [hereinafter *Impact of Dangerous Microclimate Conditions*].

Using 11 different starting cabin air temperatures, we modeled the length of time for a child to reach two critical thresholds: uncompensable heating and heatstroke under “worst case” scenarios. All simulations used a starting dew point temperature of 20°C, and the assumption that all perspiration was evaporated into the air Under all scenarios, uncompensable heating occurred within 10 min and in most cases within 5 min indicating that the child is no longer capable of balancing the incoming sources of energy and his core body temperature begins to rise monotonically. Thus, very shortly after entering the car, the child is exposed to a microclimatic environment which makes maintaining homeostasis difficult.

Id. at 105.

³⁴ See Null, NO HEAT STROKE, *supra* note 22.

since 1998.³⁵ Null obtained information relating to the factors surrounding each child's death, including the reason the child was left unattended, the temperature, and the length of time.³⁶ This database helps provide an understanding of what these incidents look like to better evaluate the current criminal-legal response. Table 1 presents the frequency of the first 907 of these deaths (covering the twenty-three-year period between 1998 and 2021) according to the circumstances under which they occurred.³⁷

TABLE 1: CIRCUMSTANCES OF CLUV DEATHS, 1998–2021

Circumstance	N (%)
Child Forgotten in Vehicle	477 (52.59%)
Child Gained Access to Vehicle	234 (25.79%)
Child Knowingly Left in Vehicle	182 (20.07%)
Unknown Circumstances	13 (1.54%)
Total	907 (100%)

Approximately 38% of the total number of CLUV fatalities reported in Table 1 stem from the actions of mothers, whereas fathers account for 25% of such deaths; the remainder are attributable to the actions of both parents, other relatives, or childcare providers.³⁸ This distribution may be due to the fact that mothers knowingly leave children unattended in vehicles at a rate more than three times that of fathers (59% compared to 18%, respectively).³⁹ Fathers, however, are responsible for the highest percentage of pediatric heatstroke fatalities stemming from CLUV incidents in which children are “forgotten” (33%), while mothers account for 28% of such deaths.⁴⁰ Of the cases in

³⁵ See *id.*

³⁶ See *id.*; see also, e.g., Jan Null, *2-Year-Old Found Dead Inside Vehicle That Was Stolen From Shooting Victim In SW Houston, HPD Says, NO HEAT STROKE* http://www.noheatstroke.org/28_2022.html [<http://perma.cc/4DZX-XMAH>] (last visited Dec. 21, 2022). For a PowerPoint presentation summarizing the majority of the data available on the website, see JAN NULL, PEDIATRIC VEHICULAR HEATSTROKE DEATHS: BY THE NUMBERS, 1998–2021 (2022) [hereinafter NULL, HEATSTROKE DEATHS: BY THE NUMBERS] http://www.noheatstroke.org/PVH_2022.pdf [<http://perma.cc/WF79-ZK2G>].

³⁷ Null, NO HEAT STROKE, *supra* note 22; NULL, HEATSTROKE DEATHS: BY THE NUMBERS, *supra* note 36 at 9 fig.6.

³⁸ NULL, HEATSTROKE DEATHS: BY THE NUMBERS, *supra* note 36 at 21 fig.9.

³⁹ *Id.* at 24 fig.9c. It is important to note that of the roughly one-fifth of cases in which a caregiver knowingly left a child unattended in a vehicle, the vast majority do not involve any malicious intent to cause harm to the child, but rather involve caregivers being unaware of the risks summarized in Part I.A. See Washabaugh, *supra* note 7, at 199; see also KIDS & CARS SAFETY, *supra* note 18, at 15 (“The overwhelming majority of hot car deaths do NOT involve abuse, neglect, prior history with CPS, drugs or alcohol.”) (emphasis in original).

⁴⁰ See NULL, HEATSTROKE DEATHS: BY THE NUMBERS, *supra* note 36 at 22 fig.9a. (Although beyond the scope of this Article, we note that these percentages align with traditional gender roles in which mothers are the predominant caretakers.) Both mothers and fathers succumb to “Forgotten Baby Syndrome.” See generally David Diamond,

which a child was forgotten in a vehicle by their caregiver and died of heatstroke, 46% were the result of a caregiver not dropping off the child at a daycare facility.⁴¹

The average age of pediatric vehicular heatstroke victims is 27.2 months.⁴² As Table 2 illustrates, more than half of all such deaths ($n = 490$, 54.02%) involve a child who was one-year-old or younger.⁴³

TABLE 2: AGE OF CHILDREN INVOLVED IN CLUV DEATHS

Age	<i>N</i> (%)
Less Than One Year	278 (30.65%)
One Year Old	212 (23.37%)
Two Years Old	171 (18.85%)
Three Years Old	130 (14.33%)
Four Years Old	55 (6.06%)
Five Years Old	28 (3.09%)
Six Years Old	9 (0.99%)
Seven through Fourteen Years Old	22 (2.65%)

Importantly, the frequency of fatal pediatric vehicular heatstroke decreases as the children's age increases, lending credence to the finding that most of these deaths are accidental as a result of children who may be sleeping being forgotten in the back seat. In fact, of the cases in which a caregiver forgot a child was in a vehicle, 409 (85.74%) involved a child aged two or younger.⁴⁴ Children in that same age range also account for the largest proportion of pediatric vehicular heatstroke fatalities ($n =$

Cognitive and Neurobiological Perspectives on Why Parents Lose Awareness of Children in Cars 1 (Aug. 9, 2018), <http://www.usf.edu/arts-sciences/departments/psychology/documents/david-diamond-research-on-why-parents-forget-children-in-hot-cars.pdf> [<http://perma.cc/3MVW-B4HB>] (hypothesizing how parents forget children in cars: “[1] the driver loses awareness of the presence of the child in the car; 2) the driver exhibits a failure of the brain’s ‘prospective memory’ system; 3) intervening events during the drive, including stressors and strong distractions, may contribute to the cause of the failure of ‘prospective memory’”); Breitfeld, *supra* note 19, at 78–84 (summarizing memory failures that can occur when people juggle child care and work responsibilities). *Forgetting* is more prevalent among fathers, whereas mothers *knowingly* leave children unattended in vehicles more frequently. See NULL, HEATSTROKE DEATHS: BY THE NUMBERS, *supra* note 36, at 22 fig.9a, 24 fig.9c. These disparities might be a function of the fact that mothers run more errands while taking care of children, and transportation of children on workdays may be outside the scope of fathers’ regular routines who forget children while their brains are on “autopilot.” See Breitfeld, *supra* note 19, at 78, 83 (quoting Skip Hollandsworth, *The Utterly Heartbreaking and Horrifying Hot-Car Death of Baby Fern Thedford*, TEX. MONTHLY (Aug. 23, 2018), <http://www.texasmonthly.com/news/hot-car-death-children-michael-thedford-texas/> [<http://perma.cc/HUW5-CA92>]).

⁴¹ See NULL, HEATSTROKE DEATHS: BY THE NUMBERS, *supra* note 36, at 9 fig.6.

⁴² *Id.* at 17 fig.8.

⁴³ NULL, NO HEAT STROKE, *supra* note 22.

⁴⁴ See NULL, HEATSTROKE DEATHS: BY THE NUMBERS, *supra* note 36, at 18 fig.8a.

139, 76.37%) that resulted from a caregiver knowingly leaving a child unattended in a vehicle.⁴⁵ The majority of discoveries of pediatric vehicular heatstroke deaths occur at home ($n = 515$, 56.78%), followed by discoveries at work ($n = 210$, 23.15%) and at child care locations ($n = 65$, 7.17%).⁴⁶

These descriptive statistics hint at the emotional and intellectual strains associated with parenting during a child's first few years of age.⁴⁷ Especially in the early stages of raising a child, parents may be more sleep deprived and emotionally drained, resulting in an increased likelihood of them forgetting their child in the vehicle.⁴⁸ Alternatively, if a parent is out running errands and the newborn child is peacefully sleeping in the car seat, letting the child rest instead of going through the process of waking the child up may be seen as the better option for sleep deprived and emotionally drained parents.⁴⁹ Lastly, the ages at which a child gains access to the car on their own is largely self-explanatory. Generally, as children grasp the concept of walking, they become increasingly more difficult to keep track of, thus leading to the potential risk of the child ending up in a vehicle on their own.

C. CLUV-Specific Laws

Currently, twenty-one states have enacted statutes specifically relating to leaving a child in a vehicle.⁵⁰ Some of these state laws were enacted in response to a pediatric hyperthermia vehicle fatality. For example, in 2001, California enacted Senate Bill 255, more commonly known as Kaitlyn's Law.⁵¹ A babysitter left six-

⁴⁵ See *id.* at 20 fig.8c.

⁴⁶ See *id.* at 25 fig.10.

⁴⁷ See Washabaugh, *supra* note 7, at 200–01 (first citing *The Myth of Joyful Parenthood*, ASS'N FOR PSYCH. SCI (Jan. 31, 2011), <http://www.psychologicalscience.org/news/were-only-human/the-myth-of-joyful-parenthood.html> [<http://perma.cc/9V4P-HPCV>]; then citing Leslie Irish Evans, *Parenthood Is Hard and Scary*, HUFFPOST (Nov. 28, 2012), http://www.huffpost.com/entry/parenthood_b_1923288 [<http://perma.cc/96XX-JYEX>]; and then citing Alice G. Walton, *How to Enjoy the Often Exhausting, Depressing Role of Parenthood*, THE ATLANTIC: HEALTH (Jan. 9, 2012), <http://www.theatlantic.com/health/archive/2012/01/how-to-enjoy-the-often-exhausting-depressing-role-of-parenthood/250901> [<http://perma.cc/G2A2-J6KG>]).

⁴⁸ See *id.* at 200–01.

⁴⁹ See *id.* at 199 (citing Kim Brooks, *I Left My Son Alone in the Car for Five Minutes—And It Caused a Two-Year Legal Nightmare*, GOOD HOUSEKEEPING (Aug. 14, 2018), <http://www.goodhousekeeping.com/life/parenting/a22724843/kim-brooks-son-legal-battle> [<http://perma.cc/25NE-RRQK>]).

⁵⁰ See Breitfeld, *supra* note 19, at 101 (“[A]t least twenty-one states have laws against leaving children unattended in a vehicle.”); see also Jan Null, *Unattended Child in Vehicle Laws*, NO HEAT STROKE (Feb. 2018), <http://www.noheatstroke.org/Laws.pdf> [<http://perma.cc/XB8C-AJXB>].

⁵¹ 2001 Cal. Stat. ch. 855 § 2 (codified as amended at CAL. VEH. CODE § 15620 (West 2003)).

month-old Kaitlyn Russell in the backseat of a car.⁵² When she was discovered, the interior temperature of the vehicle exceeded 130 degrees Fahrenheit.⁵³ The babysitter was convicted of involuntary manslaughter and spent ninety days in county jail.⁵⁴

Kaitlyn's Law's provides:

(a) A parent, legal guardian, or other person responsible for a child who is [six] years of age or younger may not leave that child inside a motor vehicle without being subject to the supervision of a person who is [twelve] years of age or older, under either of the following circumstances:

(1) Where there are conditions that present a significant risk to the child's health or safety.

(2) When the vehicle's engine is running or the vehicle's keys are in the ignition, or both.⁵⁵

Kaitlyn's Law made it illegal for any individual directly responsible for the care of a child under the age of six to leave that child unsupervised in a vehicle.⁵⁶

Violations of Kaitlyn's Law are punishable by a \$100 fine and potentially mandated participation in an education program about the dangers of CLUV.⁵⁷ The law specifically provides that nothing in it "shall preclude prosecution under . . . any other provision of law."⁵⁸ As a provision in the vehicle code, Kaitlyn's Law does not require proof of mens rea for conviction; it is a strict liability public health, safety, and welfare offense.⁵⁹ Several other states enacted similar strict liability offenses to curtail CLUV.⁶⁰ These laws arguably help to raise awareness about the dangers of unattended children in vehicles, as well as parents leaving young children in the care of other minors not mature enough to understand the

⁵² David Reyes, *Group Puts Focus on Children Left in Vehicles*, L.A. TIMES (July 6, 2001, 12:00 AM), <http://www.latimes.com/archives/la-xpm-2001-jul-06-me-19334-story.html> [<http://perma.cc/9Z6J-5E34>].

⁵³ *Id.*

⁵⁴ Suzanne Hurt, *REGION: Corona Woman Will Forever Remember Her Kaitlyn*, THE PRESS-ENTER (Aug. 14, 2015, 8:49 PM), <http://www.pe.com/2015/08/14/region-corona-woman-will-forever-remember-her-kaitlyn/> [<http://perma.cc/CMJ6-WSMQ>].

⁵⁵ CAL. VEH. CODE § 15620(a)(1)–(2) (West 2003).

⁵⁶ *Id.*

⁵⁷ *See id.* § 15620(b).

⁵⁸ *Id.* § 15620(c).

⁵⁹ *See* Jaeson D. White, *Sit Right Here Honey, I'll Be Right Back: The Unattended Child in Motor Vehicle Safety Act*, 33 MCGEORGE L. REV. 343, 344 (2002) (citing CAL. STATE ASSEMB. COMM. ON TRANSP., COMM. ANALYSIS OF S.B. 225 AT C (2001)) (reviewing selected 2001 California Legislation).

⁶⁰ *See* Washabaugh, *supra* note 7, at 204 (citing ALA. CODE § 6-5-332.5 (2019); CAL. VEH. CODE § 15620 (West 2003); FLA. STAT. ANN. § 316.6135 (West 2014); HAW. REV. STAT. ANN. § 291C-121.5 (West 2008); LA. STAT. ANN. § 32:295.3 (2005); MD. CODE ANN., FAM. LAW § 5-801 (West 1986); UTAH CODE ANN. § 76-10-2202 (West 2011); WASH. REV. CODE ANN. § 9.91.060 (West 1999)).

risks that heat poses to particularly young children. Thus, these laws may help reduce the prevalence of people intentionally leaving children unattended. But these laws cannot deter the phenomenon of accidentally forgetting about a child in a vehicle “which can happen to anyone at any time.”⁶¹

In contrast to strict liability approaches to CLUV, some states require proof of *mens rea*, usually at the level of recklessness,⁶² although some laws impose liability for negligence, while others reserve sanctions for intentional acts.⁶³ Nevada is the only state to exempt unintentional actions from liability.⁶⁴

These laws also vary with regard to liability being predicated on a minimum period of time, such as five or fifteen minutes.⁶⁵ Other CLUV laws are more ambiguous, only sanctioning the conduct if it occurs for a period of time that poses a substantial risk to the wellbeing of the child.⁶⁶ In our opinion, such approaches are flawed. These laws signal that it is acceptable to leave children unattended in vehicles so long as it is just for a specific period of time or if the child is younger than a particular age. But these laws should communicate that CLUV is not acceptable for children of any age or for any duration of time, rather than telegraphing it may be acceptable under the right circumstances.

Are such laws the best way to address CLUV? Consider the case of Brittany Borgess. Borgess was sleep deprived and encountered unexpected road construction that altered her normal route to work.⁶⁷ Instead of taking her regular exit for her daughter’s daycare, Borgess proceeded straight to work and did not realize until after the end of the day that her daughter was still in the car.⁶⁸ Despite being incredibly distraught over the error that claimed the life of her four-year-old, she was charged

⁶¹ *Id.* at 207.

⁶² *See id.* (citing CONN. GEN. STAT. ANN. § 53-21a (West 2012); MICH. COMP. LAWS ANN. § 750.135a (West 2009); OKLA. STAT. ANN. tit. 43A, § 10-103 (West 2019); 75 PA. STAT. AND CONS. STAT. ANN. § 3701.1 (West 2006)).

⁶³ *See id.* at 208 (first citing UTAH CODE ANN. § 76-10-2202 (West 2011) (permitting punishment upon a showing of criminal negligence or any higher level of *mens rea*); and then citing 720 ILL. COMP. STAT. ANN. 5/12C-5 (West 2013) (requiring purpose or knowledge for liability)).

⁶⁴ *See id.* (citing NEV. REV. STAT. ANN. § 202.485 (West 2017)).

⁶⁵ *See id.* at 205 (first citing FLA. STAT. ANN. § 316.6135 (West 2014) (fifteen minutes); and then citing TEX. PENAL CODE § 22.10(a) (West 2021) (five minutes)).

⁶⁶ *See id.* (citing CONN. GEN. STAT. ANN. § 53-21a (West 2012); MICH. COMP. LAWS ANN. § 750.135a (West 2009)).

⁶⁷ *See* Pat Crossley, *Jury: Woman Acquitted of Charges for Death of Child Left in Hot Car*, WILLIAMSPORT SUN-GAZETTE (Nov. 10, 2018), <http://www.sungazette.com/news/top-news/2018/11/jury-woman-acquitted-of-charges-for-death-of-child-left-in-hot-carhttp> [<http://perma.cc/GW7Y-6VHN>].

⁶⁸ *Id.*

with involuntary manslaughter and child endangerment.⁶⁹ Because the law in Florida required proof of recklessness—conscience disregard of a known risk—she was acquitted of these offenses, but convicted of the lesser strict liability charge of leaving an unattended child in a vehicle, a summary offense for which a \$25 fine was imposed.⁷⁰ When considering the mental health toll associated with processing the loss of a child—especially when due to one’s own mistake—subsequent criminal prosecution undoubtedly exacerbates an already incredibly difficult situation.

D. Charging and Prosecuting Decisions in Pediatric Hyperthermia Death Cases

Of course, both police and prosecutorial discretion impact how all CLUV cases are handled. Prior research has focused on the exercise of that discretion in cases resulting in a child’s death. For instance, the organization “Kids and Car Safety” constructed a database of lethal pediatric hyperthermia cases similar to No Heat Stroke’s,⁷¹ but the former’s data includes information about how the criminal legal system responded to such cases.⁷² Table 3 summarizes the case outcomes they tracked across the thirty-year period between 1990 and 2020.⁷³

The organization noted that of the 31% of cases in which a conviction was ultimately obtained, many resulted from defendants entering a plea to avoid the re-traumatization that would likely occur at trial while they were trying to cope with “the tragic loss of child.”⁷⁴ It also broke down outcomes based on the context of incidents. In the “forgotten” child cases (i.e., when CLUV occurs unknowingly), 41% did not result in charges; whereas of the cases charged, 32% resulted in a conviction and 11% resulted in an acquittal.⁷⁵ When children gained access to vehicles on their own volition, the rate of charge declinations skyrocketed to 75%, while 9% resulted in convictions and 45 ended in acquittal.⁷⁶ By contrast, in cases involving conscious decisions to leave a child unattended in vehicles, prosecutors filed charges in 84% of cases, 69% of which ended in convictions compared to just 6% ending in acquittals.⁷⁷

⁶⁹ *See id.*

⁷⁰ *See id.*; FLA. STAT. ANN. § 316.6135 (West 2014); FLA. STAT. ANN. § 782.07 (West 2012).

⁷¹ *See* Null, NO HEAT STROKE, *supra* note 22.

⁷² *See* KIDS & CARS SAFETY, *supra* note 18, at 15.

⁷³ *See id.* at 15 fig.12.

⁷⁴ *See id.* at 15.

⁷⁵ *Id.* at 16 fig. 12a.

⁷⁶ *Id.* at 16 fig.12b.

⁷⁷ *Id.* at 17 fig.12c.

TABLE 3: CASE OUTCOMES IN CLUV DEATH CASES

Outcome	Percentage
No Charges Filed	44%
Charges Filed, No Conviction Obtained	8%
Charges Filed, Conviction Obtained	31%
Charges Filed, Outcome Unknown	8%
Outcome Unknown	9%

II. METHODS

As previously mentioned, the outcomes presented in Table 3 are limited to cases in which a child died. Incidents in which a child survives do not receive the same level of media or scholarly attention. As a result, we know little about the criminal legal system response to nonlethal CLUV cases. To fill this gap in the literature, the researchers searched Westlaw's state caselaw database using the following Boolean parameters for cases decided in the thirty-one-year period between January 1, 1990, and December 31, 2021:

unattend! /s child! /s (car or vehicle or truck)

The results were filtered to exclude civil cases but included both published and unpublished criminal cases. This search resulted in a sampling frame of 185 cases.

A. Removal of Irrelevant Cases

Of the 185 total cases, we excluded 121 of them because they were not relevant to the research question. These cases were excluded for one or more of the following four reasons.

First, we removed eight duplicate cases. Duplicate cases typically occurred when a lower court rendered a decision that was then appealed or when defendants filed successive petitions for post-conviction relief. In such cases, the final decision on the merits is included in the search sample.⁷⁸

Second, the search terms pulled fifty-two cases that referenced the words "child" and "vehicle," but under

⁷⁸ See *State v. Taylor*, 493 P.3d 463 (N.M. Ct. App. 2021), *rev'd*, 491 P.3d 737 (N.M. 2021); *State v. Morlo M.*, 234 A.3d 1137 (Conn. App. Ct. 2020), *withdrawn and superseded by* 261 A.3d 68 (Conn. App. Ct. 2021), *cert. denied*, 261 A.3d 745 (Conn. 2021); *State v. Cummings*, 243 P.3d 697 (Kan. Ct. App. 2010), *rev'd*, 305 P.3d 556 (Kan. 2013); *Mosley v. State*, Nos. 01–08–00937–CR, 01–08–00938–CR 2010 WL 3448083 (Tex. App. Aug. 31, 2010), *withdrawn and superseded by* 355 S.W.3d. 59 (Tex. App. 2010); *State v. Maurice M.*, 975 A.2d 90 (Conn. App. Ct. 2009), *rev'd*, 31 A.3d 1063 (Conn. 2011); *Beene v. State*, No. M2005-01322-CCA-R3-PC, 2006 WL 680919 (Tenn. Crim. App. Mar. 17, 2006); *People v. Jordan*, 820 N.E.2d 1083 (Ill. App. Ct. 2004), *aff'd in part, rev'd in part*, 843 N.E.2d 870 (Ill. 2006); *People v. Maynor*, 662 N.W.2d 468 (Mich. Ct. App. 2003), *aff'd*, 683 N.W. 2d 565 (Mich. 2004).

circumstances having nothing to do with CLUV.⁷⁹ Third, despite selecting the criminal case filter in Westlaw, the search results

⁷⁹ See *Smith v. State*, No. C-21-CR-19-000450, 2021 WL 4168219, at *2 n.2 (Md. Ct. Spec. App. Sept. 14, 2021) (“Smith was charged with failure to display his driver’s license to a uniformed police officer, driving on a revoked license, driving on a suspended license, driving on a license suspended for failure to pay child support and fines, negligent driving, failure to obey a traffic control device, failure to remain at the scene of an accident involving bodily injury, failure to notify the owner of an unattended vehicle of property damage, and failure to provide his insurance information.”); see also *Tengeres v. State*, 253 A.3d 173 (Md. 2021); *State v. Ferguson*, 919 N.W.2d 863 (Neb. 2018); *State v. Gaskins*, 866 N.W.2d 1 (Iowa 2015); *State v. Cummings*, 305 P.3d 556 (Kan. 2013); *State v. Kern*, 831 N.W.2d 149 (Iowa 2013); *Lucero ex rel. Lucero v. Holbrook*, 288 P.3d 1228 (Wyo. 2012); *State v. Small*, 11-2796 (La. 10/16/12), 100 So. 3d 797 (La. 2012); *State v. Maurice M.*, 31 A.3d 1063 (Conn. 2011); *Gilbert v. State*, No. PD-1645-08, 2010 WL 454966 (Tex. Crim. App. Feb. 10, 2010); *City of Redmond v. Bagby*, 117 P.3d 1126 (Wash. 2005); *State v. Montgomery*, 501 P.3d 1089 (Or. Ct. App. 2021); *People v. Penning*, 189 N.E.3d 958 (Ill. App. Ct. 2021); *State v. Harris*, 487 P.3d 421 (Or. Ct. App. 2021); *State v. Applebee*, No. 120,985, 2020 WL 1223408 (Kan. Ct. App. Mar. 13, 2020); *State v. Morlo M.*, 234 A.3d. 1137 (Conn. Ct. App. 2020), *withdrawn and superseded by* 261 A.3d. 68 (Conn. Ct. App. 2021); *People v. Potts*, No. 4-17-0256, 2020 WL 1488415 (Ill. App. Ct. Mar. 23, 2020); *Shannon v. State*, No. 18A-CR-935, 2018 WL 5289535 (Ind. Ct. App. Oct. 25, 2018); *State v. White*, 410 P.3d 153 (Kan. Ct. App. 2017); *Meza v. State*, 549 S.W.3d 672 (Tex. App. 2017); *Johnson v. State*, 801 S.E.2d 294 (Ga. Ct. App. 2017); *Hernandez v. State*, 531 S.W.3d 359 (Tex. App. 2017); *State v. Drinks*, No. A-2812-15T1, 2017 WL 3568211 (N.J. Super. Ct. App. Div. Aug. 18, 2017); *In re J.C.*, No. B260779, 2015 WL 7075621 (Cal. Ct. App. Nov. 13, 2015); *State v. Wyatt*, No. CA2014-06-081, 2014 WL 6609691 (Ohio Ct. App. Nov. 24, 2014); *State v. Pesqueira*, 333 P.3d 797 (Ariz. Ct. App. 2014); *State v. Crossett*, 332 P.3d 840 (Kan. Ct. App. 2014); *People v. Newman*, No. 3-12-0685, 2014 WL 3401104 (Ill. App. Ct. July 8, 2014); *State v. Wright*, No. CA2012-08-152, 2014 WL 1356481 (Ohio Ct. App. Mar. 17, 2014); *Clark v. State*, No. 12-12-00287-CR, 2013 WL 5966464 (Tex. App. Nov. 6, 2013); *People v. Cartmill*, No. 4-12-0820, 2013 WL 3968338 (Ill. App. Ct. July 31, 2013); *Weisheit v. State*, 969 N.E.2d 1082 (Ind. Ct. App. 2012); *People v. Reimer*, 971 N.E.2d 1134 (Ill. App. Ct. 2012); *Mayberry v. State*, 351 S.W.3d 507 (Tex. App. 2011); *State v. Gonzales*, 263 P.3d 271 (N.M. Ct. App. 2011), *aff’d on other grounds*, 301 P.3d 380 (N.M. 2013); *Mosley v. State*, 355 S.W.3d 59 (Tex. App. 2010); *Wood v. Commonwealth*, 701 S.E.2d 810 (Va. Ct. App. 2010); *Bearfield v. State*, 699 S.E.2d 363 (Ga. Ct. App. 2010); *Butler v. State*, No. 14-09-00067-CR, 2010 WL 547055 (Tex. App. Feb. 18, 2010); *Martin v. State*, Nos. 03-08-00400-CR, 03-08-00401-CR, 2009 WL 1980951 (Tex. App. July 10, 2009); *Justice v. Commonwealth*, No. 2007-CA-002038-MR, 2009 WL 563510 (Ky. Ct. App. June 19, 2009); *State v. Rooks*, 674 S.E.2d 738 (N.C. Ct. App. 2009); *Fluker v. State*, 674 S.E.2d 404 (Ga. Ct. App. 2009); *State v. Diaz*, No. 2 CA-CR 2008-0184, 2009 WL 369466 (Ariz. Ct. App. Feb. 13, 2009); *People v. Rangel*, No. H032408, 2008 WL 4601086 (Cal. Ct. App. Oct. 16, 2008); *Ellis v. State*, 642 S.E.2d 869 (Ga. Ct. App. 2007); *People v. Romero*, No. B192615, 2007 WL 241166 (Cal. Ct. App. Jan. 30, 2007); *People v. Delapaz*, No. C045971, 2005 WL 1324850 (Cal. Ct. App. June 6, 2005); *Commonwealth v. Stewart*, 71 Pa. D. & C.4th 153 (Pa. C.P. Centre Cnty. 2005), *rev’d*, 897 A.2d 523 (Pa. Super. Ct. 2006); *Moody v. State*, No. 01-03-00685-CR, 2004 WL 1472216 (Tex. App. July 1, 2004); *State v. Payne*, 695 A.2d 525 (Conn. 1997), *overruled in part on other grounds by State v. Romero*, 849 A.2d 760 (Conn. 2004); *Commonwealth v. Cameron*, 668 A.2d 1163 (Pa. Super. Ct. 1995).

included forty-four cases from family court⁸⁰ and five other types of judicial proceedings.⁸¹

Finally, we removed twelve cases from our final sample cases in which a child had been left unattended in a vehicle but that fact had nothing to do with the central issue in the judicial decision.⁸²

⁸⁰ *In re* A.R., No. A162954, 2022 WL 593760 (Cal. Ct. App. Feb. 28, 2022); N.J. Div. Child Prot. & Permanency v. E.K., No. A-1486-19, 2021 WL 2639799 (N.J. Super. Ct. App. Div. June 28, 2021); *In re* T.C., 171 N.E.3d 1056 (Ind. Ct. App. 2021); N.J. Div. Child Prot. & Permanency v. M.D.G., No. A-5418-18T2, 2020 WL 6880114 (N.J. Super. Ct. App. Div. Nov. 24, 2020); *In re* A.L., 928 N.W.2d 893 (Iowa Ct. App. 2019); *In re* A.M.O., No. 04-17-00798-CV, 2018 WL 2222207 (Tex. App. May 16, 2018); N.J. Div. Child Prot. & Permanency v. L.K., No. A-3927-15T4, 2017 WL 6275699 (N.J. Super. Ct. App. Div. Oct. 23, 2017); *In re* A.M., 87 N.E.3d 1162 (Ind. Ct. App. 2017); *In re* J.M.D., No. 400 MDA 2013, 2013 WL 11256524 (Pa. Super. Ct. Aug. 9, 2013); Ark. Dep't of Hum. Servs. v. Lewis, 515 S.W.3d 176 (Ark. Ct. App. 2017); N.J. Div. of Child Prot. & Permanency v. D.P., No. A-0932-14T1, 2016 WL 4197311 (N.J. Super. Ct. App. Div. Aug. 10, 2016); N.J. Div. of Child Prot. & Permanency v. S.N., No. A-1454-14T2, 2016 WL 3389821 (N.J. Super. Ct. App. Div. June 21, 2016); N.J. Div. of Child Prot. & Permanency v. K.G., 137 A.3d 1232 (N.J. Super. Ct. App. Div. 2016); Brandon v. King, 28 N.Y.S.3d 757 (App. Div. 2016); N.J. Div. of Child Prot. & Permanency v. G.S., No. A-5216-13T1, 2015 WL 9918153 (N.J. Super. Ct. App. Div. Jan. 28, 2016); N.J. Div. of Child Prot. & Permanency v. S.B., No. A-0559-14T2, 2015 WL 9855899 (N.J. Super. Ct. App. Div. Jan. 21, 2016); N.J. Div. of Child Prot. & Permanency v. F.D., No. A-3638-12T1, 2015 WL 5944285 (N.J. Super. Ct. App. Div. Oct. 14, 2015); N.J. Div. of Child Prot. & Permanency v. J.M., No. A-2729-13T1, 2015 WL 4631061 (N.J. Super. Ct. App. Div. Aug. 5, 2015); *In re* J.M.D., No. 400 MDA 2013, 2013 WL 11256524 (Pa. Super. Ct. Aug. 9, 2013); *In re* J.B., No. 98546, 2013 WL 1799849 (Ohio Ct. App. Apr. 26, 2013); *In re* D.W., 918 N.E.2d 26 (Ind. Ct. App. 2009); Edwards v. Edwards, 744 N.W.2d 243 (Neb. Ct. App. 2008); N.J. Div. of Youth & Fam. Serv. v. P.G., No. FG-17-27-05, 2006 WL 3077684 (N.J. Super. Ct. App. Div. Nov. 1, 2006); Letitia V. v. Superior Ct. of Orange Cnty., 97 Cal. Rptr. 2d 303 (Ct. App. 2000); *In re* Jones, No. 99-CA-65-69, 1999 WL 1071746 (Ohio. Ct. App. Nov. 15, 1999); *In re* T.L., No. 953-2340, 1996 WL 393521 (Mo. Cir. Ct. May 7, 1996); Diaz v. Kelley, 657 N.E.2d 657 (Ill. App. Ct. 1995); *In re* Termination of Parental Rights of Eventyr J., 902 P.2d 1066 (N.M. Ct. App. 1995).

Note that in some of these cases, CLUV was the factual predicate bringing parents to the attention of state child welfare officials. But because these cases concern parental fitness and child custody rather than any criminal law question related to CLUV, these cases are not included in our final research sample. See, e.g., Iverson v. Iverson, 535 N.W.2d 739 (N.D. 1995); *In re* Adoption of G.A.S., Jr., No. 1501 WDA 2021, 2022 WL 1936422 (Pa. Super. Ct. June 6, 2022); O.G. v. A.B., 234 A.3d 766 (Pa. Super. Ct. 2020); *In re* L.R., No. E072767, 2019 WL 5690629 (Cal. Ct. App. Nov. 4, 2019); *In re* B.H.-M., No. 13-16-00692-CV, 2017 WL 1737971 (Tex. App. May 4, 2017); *In re* R.A.G., 545 S.W.3d 645 (Tex. App. 2017); *In re* R.S.S., No. 14-16-00072-CV, 2016 WL 3902446 (Tex. App. July 14, 2016); State *ex rel.* C.P., No. 16-38, 2016 WL 2348451 (La. Ct. App. May 4, 2016); *In re* B.S., No. 15-1565, 2015 WL 8366829 (Iowa Ct. App. Dec. 9, 2015); *In re* B.G., No. 15-0732, 2015 WL 5996936 (Iowa Ct. App. Oct. 14, 2015); N.J. Div. of Child Prot. & Permanency v. M.W., Nos. A-4056-12T4, 2014 WL 3026208 (N.J. Super. Ct. App. Div. July 7, 2014); N.J. Div. of Child Prot. & Permanency v. J.A., 91 A.3d 655 (N.J. Super. Ct. App. Div. 2014); State *ex rel.* A.W., 250 P.3d 343 (Okla. Civ. App. 2011); N.J. Div. of Youth & Fam. Servs. v. R.C., No. FG-14-31-08, 2010 WL 1526365 (N.J. Super. Ct. App. Div. Apr. 13, 2010); *In re* Marriage of Holtorf, 922 N.E.2d 1173 (Ill. App. Ct. 2010); *In re* B.L.M.S., No. 04-1843, 2005 WL 159437 (Iowa Ct. App. Jan. 26, 2005).

⁸¹ See, e.g., Doe v. City of Charlotte, 848 S.E.2d 1 (N.C. Ct. App. 2020) (police negligence and malicious prosecution claims); *In re* Standard Jury Instructions in Criminal Cases—Report 2018-09, 262 So. 3d 59 (Fla. 2019) (jury instructions); Borough of New Bloomfield v. Wagner, 35 A.3d 839 (Pa. Commw. Ct. 2012) (abandoned vehicle ordinance); O'Neill v. Gallant Ins. Co., 769 N.E.2d 100 (Ill. App. Ct. 2002) (bad faith insurance claim); Moran v. City of Chicago, 676 N.E.2d 1316 (Ill. App. Ct. 1997) (police failure to protect claims).

⁸² For example, *State v. Johnson*, No. M2000-01647-CCA-R3CD, 2001 WL 1180524, at

B. Content Analysis of Relevant Cases ($n = 64$)

“Content analysis is a formal system for doing something we all do informally rather frequently—draw conclusions from observations of content.”⁸³ But unlike with informal observations, content analysis employs systematic procedures “for making replicable and valid inferences from [data] . . . to the contexts.”⁸⁴

We used a mixed-methods approach for the present study by conducting both quantitative and ethnographic content analyses.⁸⁵ The quantitative portion of our content analysis applies an *a priori* design to review both published and unpublished judicial opinions in criminal cases and code for the presence or absence of predefined

*1 (Tenn. Crim. App. Oct. 8, 2001), involved an appeal of a murder conviction. One of the key pieces of evidence tying the defendant to the homicide involved an eyewitness who identified the defendant as a function of a CLUV.

Just prior to the stabbing incident, . . . the Barretts were returning from a shopping trip when Mr. Barrett noticed an African-American infant asleep in a vehicle as they walked through the apartment parking lot. The baby was strapped into a child’s car seat located on the back seat of the vehicle, the windows were down, and the vehicle was unattended. The Barretts were concerned for the baby’s safety. Since they could see the parking lot from their apartment, they went home and kept a watch on the car from their window. After twenty or thirty minutes passed and no one came to check on the baby, Barrett wrote down the license plate number of the car, and Mrs. Barrett called 911 to report the possibility that someone may have abandoned a child. Approximately one hour after Barrett first noticed the infant, he observed two men walk hurriedly across the parking lot and get into the car with the baby in it. It was dark and he could not see their faces, but he was able to determine that they were African American. Barrett described the taller man as extremely “hyper” and “on the move.” The shorter, husky man seemed calmer and “in control.” The husky man drove the vehicle; he backed up slowly, and then headed for the exit with the headlights off. When the men reached the road, the headlights came on and the vehicle began to accelerate.

Johnson, 2001 WL 1180524, at *2. Although this case involved a CLUV, nothing about the central legal issues in the case concern that fact. The dispute was about the sufficiency of the evidence to support the murder conviction. The CLUV provided the impetus for an eyewitness to pay attention to the circumstances under which the jury determined the crime had occurred. Accordingly, this case is irrelevant to the present study’s research questions. *See also* *Delgado v. State*, 71 So. 3d 54, 56–57 (Fla. 2011); *Jaeger v. State*, 948 P.2d 1185, 1187 (Nev. 1997); *People v. Pensinger*, 805 P.2d 899, 908 (Cal. 1991); *Braddy v. State*, No. 2246, 2019 WL 4233926, at *8–11 (Md. Ct. Spec. App. Sept. 6, 2019); *State v. Long*, 430 P.3d 1086, 1087 (Or. Ct. App. 2018); *Beene v. State*, M2014–00088–CCA–R3–ECN, 2014 WL 3439508, at *3 (Tenn. Crim. App. July 14, 2014); *State v. Guillot*, 115 So. 3d 624, 627 (La. Ct. App. 2013); *Commonwealth v. Noble*, No. 04-P-867, 2005 WL 673372, at *1 (Mass. App. Ct. Mar. 23, 2005), *appeal denied*, 829 N.E.2d 225 (2005); *Trammell v. State*, 751 N.E.2d 283, 285 (Ind. Ct. App. 2001); *Dailey v. State*, 828 So. 2d 337, 338 (Ala. Crim. App. 2000); *People v. Smith*, No. 187851, 1997 WL 33354351, *4–5 (Mich. Ct. App. Feb. 14, 1997).

⁸³ *See* Guido H. Stempel, III, *Content Analysis*, in *MASS COMMUNICATION RESEARCH AND THEORY* 209 (Guido H. Stempel et al. eds., 2003).

⁸⁴ *See* KLAUS KRIPPENDORFF, *CONTENT ANALYSIS: AN INTRODUCTION TO ITS METHODOLOGY* 18 (Margaret H. Seawell et al. eds., 2d ed. 1980).

⁸⁵ *See* DAVID L. ALTHEIDE & CHRISTOPHER J. SCHNEIDER, *QUALITATIVE MEDIA ANALYSIS* 24–26 (Vicki Knight et al. eds., 2d ed. 2013) (detailing the phases of qualitative content analysis); KIMBERLY A. NEUENDORF, *THE CONTENT ANALYSIS GUIDEBOOK* 351 (Karen Omer et al., 2d ed. 2017).

variables.⁸⁶ This approach allows for the calculation of both the frequency of key variables, as well as the extent to which they may be related.⁸⁷ It also allows for hypothesis testing and promotes replicability.⁸⁸ The qualitative part of content analysis is inductive. This method is particularly well-suited for comparing and contrasting multiple cases (like the sixty-four relevant cases in our research sample) to detect emergent themes across the cases.⁸⁹

1. Quantitative Analyses

After both researchers read and agreed on the removal of irrelevant cases, sixty-four relevant cases remained. All sixty-four cases in the final research sample centered around criminal or quasi-criminal liability for leaving a child unattended in a vehicle.

a. Variables

Each judicial opinion was coded for manifest content for all the variables presented in Table 4.

TABLE 4: STUDY VARIABLES

VARIABLE NAME	DESCRIPTION
Dependent Variable	
<i>Outcome</i>	A dichotomous nominal-level variable indicating final resolution of a claim in favor of (1) prosecution (defendant convicted/conviction upheld), or (2) defense (defendant acquitted/ conviction reversed either on appeal or collateral attack). ⁹⁰
Independent Variables	
<i>Age</i>	A multcategory ordinal-level variable classifying the child victim's age as (1) infant (zero to twenty-three months); (2) toddler (two to three years); (3) early childhood (four to six years); (4) school-age (seven to twelve years); or (5) teenager (thirteen to eighteen years). ⁹¹

⁸⁶ See NEUENDORF, *supra* note 85, at 18.

⁸⁷ See ALTHEIDE & SCHNEIDER, *supra* note 85, at 96–119 (discussing variable coding); *id.* at 24–26 (discussing variable measurement).

⁸⁸ See *id.* at 24–26.

⁸⁹ See *id.* at 27.

⁹⁰ A *nominal* variable is sometimes referred to as a categorical variable because it expresses categories that have “no intrinsic value.” *What Is the Difference Between Categorical, Ordinal and Interval Variables?*, UCLA ADVANCED RSCH. COMPUTING, <http://stats.oarc.ucla.edu/other/mult-pkg/whatstat/what-is-the-difference-between-categorical-ordinal-and-interval-variables/> [http://perma.cc/P3WV-VMSV] (last visited Feb. 25, 2023). They can be dichotomous, such as yes/no; guilty/not guilty, or they can have numerous categories, such as a range of hair colors or a listing of races or ethnicities. *Id.*

⁹¹ An *ordinal-level variable* is similar to a nominal one, but there is a clear ordering of the categories, such as expressing height as being short, average, or tall; or expressing income as low, medium, and high. *Id.*

<i>Circumstances</i>	A trichotomous, nominal-level variable indicating whether (1) a caretaker intentionally left a child in a vehicle, (2) a caretaker forgot about a child in vehicle, or (3) a child accessed a vehicle without a caretaker's knowledge.
<i>Charge</i>	A multicategory, nominal-level variable for which dummy codes were created to indicate whether the defendant had been charged with (1) child endangerment or similar charge requiring recklessness; (2) child abuse; (3) child neglect; (4) an intentional homicide requiring knowledge or purpose; (5) an unintentional homicide requiring recklessness; or (6) a criminally negligent homicide. ⁹²
<i>CLUV Law</i>	A dichotomous, nominal-level variable indicating whether the state in which the case arose had a specific statutory provision governing leaving children unattended in vehicles.
<i>Temperature</i>	A dichotomous, nominal-level variable that was dummy coded to indicate that the temperature was either (1) hot (e.g., summer), or (2) cold (e.g., winter).
<i>Region</i>	A multicategory, nominal-level variable for which dummy codes were created to indicate the geographical region of the country based on U.S. Census regions: (1) Northeast, ⁹³ (2) Midwest, ⁹⁴ (3) South, ⁹⁵ and (4) West. ⁹⁶
<i>Time</i>	A multicategory, ordinal-level variable indicating how long a child was left unattended in a vehicle coded as (1) short (five to thirty minutes), (2) medium (thirty-one to sixty minutes), (3) long (sixty-one minutes or longer). ⁹⁷

⁹² *Dummy variables* express how nominal variables are coded for regression analyses. See notes 98–100 and accompanying text. For example, when coding the nominal variable of hair color used as an example in the preceding footnote, “blond” might be dummy coded with a value of 1, “brunette” with a value of 2, “red” with a value of 3, and “other” with a value of 4. Because the values assigned to these categories are devoid of intrinsic value, the common parlance in statistics is to refer to them as being “dummy” coded. See, e.g., *How to Use Dummy Variables in Regression Analysis*, STATOLOGY (Feb. 1, 2021), <http://www.statology.org/dummy-variables-regression/> [<http://perma.cc/WYA6-PULG>]; see generally MELISA A. HARDY, REGRESSION WITH DUMMY VARIABLES 7–17 (1993) (“creating dummy variables” chapter); *id.* at 18–28 (“using dummy variables as regressors” chapter). In the present study, because the charges in any given case are nominal variables, they are dummy coded for analysis.

⁹³ This region includes Conn., Mass., Me., N.H., N.J., N.Y., Pa., R.I., and Vt. See *Census Regions and Divisions of the United States*, U.S. CENSUS BUREAU, http://www2.census.gov/geo/pdfs/maps-data/maps/reference/us_regdiv.pdf [<http://perma.cc/LT7J-EUE8>] [hereinafter *Census Regions*] (last visited June 13, 2022).

⁹⁴ This region includes Iowa, Ill., Ind., Kan., Mich., Minn., Mo., Neb., N.D., Ohio, S.D., and Wis. *Id.*

⁹⁵ This region includes Ala., Ark., Del., D.C., Fla., Ga., Ky., La., Md., Miss., N.C., Okla., S.C., Tenn., Tx., Va., and W. Va. *Id.*

⁹⁶ This region includes Alaska, Ariz., Cal., Colo., Haw., Idaho, Mont., Nev., N.M., Or., OR, Wash., and Wyo. *Id.*

⁹⁷ Time was originally measured as a ratio-level variables (i.e., actual time in minutes). Given the wide range of values, however, we collapsed time into the three categories specified in Table 4 to facilitate regression analysis without extreme outliers that, for the purposes of hyperthermia, are not relevant for the reasons explained in Part I.A. See *supra* notes 23–33 and accompanying text.

b. Analytic Strategy

The analytic strategy we used to examine how the criminal-legal system approaches CLUV cases involved a two-step sequence. First, we ran descriptive statistics to provide an overview of the data. Second, we ran a series of inferential statistics—including chi-squares, Fisher Exact tests, and logistic regressions—to examine the effects and predictive probability of the independent variables listed in Table 4 on case outcomes.

Chi-square tests and Fisher Exact statistics determine whether there are significant differences between nominal (i.e., categorical) variables.⁹⁸ Put simply, these tests are used to see if there is a relationship between two seemingly unrelated variables. Regression is a statistical procedure that assesses whether a set of independent variables is associated with some outcome, referred to as the *dependent variable*.⁹⁹ These analyses not only identify the particular independent variables that significantly predict the outcome, but also the degree to which they do so as “indicated by the magnitude and sign of the beta estimates.”¹⁰⁰ There are several types of regression, including logistic regression, which is the appropriate type when the dependent variable is dichotomous, meaning there are only two possible outcomes. The present study is dichotomous, with the final case outcome in favor of either the prosecution or the defense.¹⁰¹ The final regression model reported in Table 9 only uses the amount of time a child was left unattended in a vehicle and three independent variables that were statistically

⁹⁸ See, e.g., ALAN AGRESTI, STATISTICAL METHODS FOR THE SOCIAL SCIENCES § 8.2 (Suzy Bainbridge et al. eds., 5th ed. 2018); DAVID WEISBURD & CHESTER BRITT, STATISTICS IN CRIMINAL JUSTICE 197–233 (4th ed. 2014). The test is instrumental in determining the independence of or relationship between cross-tabulated data. The statistical procedure tests whether an association exists between the two variables by comparing the observed pattern of responses in the cells to the pattern that would be expected if the variables were truly independent of each other. Calculating the chi-square statistic and comparing it against a critical value from the chi-square distribution allows the researcher to assess whether the observed cell counts are significantly different from the expected cell counts. See *Using Chi-Square Statistic in Research*, STAT. SOLS. <http://www.statisticssolutions.com/free-resources/directory-of-statistical-analyses/using-chi-square-statistic-in-research/> [<http://perma.cc/2A6X-F3AN>] (last visited Aug. 3, 2021).

The Fisher Exact test serves the same purpose as chi-squares but is more appropriate with sample sizes less than 1,000 (like ours) or when 20% of expected frequencies in cross-tabulation cells are less than or equal to 5. See Matthias Döring, *Testing Independence: Chi-Squared vs Fisher’s Exact Test*, DATA SCI. BLOG (Oct. 17, 2018), http://www.datascienceblog.net/post/statistical_test/contingency_table_tests/ [<http://perma.cc/C36Q-4WG8>]. Because the research sample consists of 64 cases, we report both the chi-square and Fisher’s Exact statistics as confirmatory of each other.

⁹⁹ See *What Is Linear Regression?*, STAT. SOLS., <http://www.statisticssolutions.com/free-resources/directory-of-statistical-analyses/what-is-linear-regression/> [<http://perma.cc/4UK7-3RHU>] (last visited Aug. 3, 2022).

¹⁰⁰ *Id.*

¹⁰¹ *Id.*; see also JASON W. OSBORNE, BEST PRACTICES IN LOGISTIC REGRESSION 3–4 (2015).

significant ($p < 0.05$) or approached significance ($p < 0.08$) in the chi-square analyses; it omits those variables that were insignificant ($p > 0.08$). As a result, in addition to the duration of time in a CLUV-incident, the logistic regression model includes three other predictor variables: the child's age ($p < 0.014$); whether the jurisdiction has a CLUV-specific law ($p < 0.052$); and type of case inquiry using the categories that emerged in the qualitative analyses of case ($p < .022$), as summarized in Table 5.

2. Qualitative Content Analysis

The qualitative portion of this study focused on narrative data in which both categorical and unique data were obtained from each case studied.¹⁰² The content analysis was conducted in three phases, the completion of which allowed for the creation of a typology based on the patterns that emerged during the analyses of cases.

a. Phase One: Preliminary Protocol Development

During the first phase, each of the two researchers independently reviewed ten relevant cases to identify distinctive patterns in ways that courts adjudicated cases involving CLUV. This allowed us to develop a preliminary protocol for coding cases.¹⁰³ We then compared our assessments to harmonize our coding so that all cases presenting similar themes could be more reliably coded as falling within a particular category.

b. Phase Two: Case Classification and Inter-rater Reliability

The second phase required each of the two researchers to code all sixty-four relevant cases independently. Cases falling within one of the themes identified during the first phase were added to that previously-identified category. We created new categories for cases presenting substantially different CLUV issues, thereby allowing for the emergence of central themes that are summarized in Table 5 and explored in detail in Part III.B of this Article.

During our preliminary coding of all 185 cases in the sampling frame, we agreed on all of the 121 cases that were irrelevant, although we initially coded three of these irrelevant cases as meeting different exclusion reasons. Of the sixty-four relevant cases, we are pleased to report that we achieved an impressively

¹⁰² See generally ALTHEIDE & SCHNEIDER, *supra* note 85, at 23–73.

¹⁰³ See *id.* at 44–45.

high level of inter-rater reliability at 95.3%.¹⁰⁴ That is a function of the fact that both researchers coded all but four of the cases identically. For the four cases on which we initially disagreed, we talked through our differences of opinion and came to an agreement on the best way to code them.

c. Phase Three: Case Studies

In the final phase of the content analysis, we compared and contrasted the cases within each of the categories that emerged in phase two. This allowed us to make some generalizations not only about the factual circumstances under which CLUV results in criminal or quasi-criminal charges being filed, but also about how courts grapple with CLUV issues.

III. RESULTS

A. Quantitative Findings

Although the methodology drew from cases at all levels of judicial proceedings, nearly all of the cases in the sample came from state appellate or supreme courts.

1. Nature of Case Inquiry

Table 5 presents the primary types of claims raised by the facts in the cases, along with their corresponding frequencies.

TABLE 5: CATEGORIES OF CASES

Major Case Themes	Number of Cases	Percent
Consequences of Conviction	09	14.06%
Sufficiency of the Evidence	49	76.56%
Statutory Construction	06	09.38%
Total	64	100.00%

As Table 5 illustrates, a supermajority ($n = 49$, 76.6%) of these cases involved sufficiency of the evidence claims. This is consistent with national data reporting that sufficiency of the evidence claims is the most common legal issue appellate courts address.¹⁰⁵ Most of these cases involved appellate review of one of two issues: (1) whether the record evidenced sufficient facts proving that the

¹⁰⁴ This is well above the typical threshold of 75% agreement required in the social sciences and even exceeds the 90% agreement rate threshold in medicine. *See, e.g.*, Stephanie Glen, *Inter-rater Reliability IRR: Definition, Calculation*, STAT. HOW TO (July 17, 2016), <http://www.statisticshowto.com/inter-rater-reliability/> [<http://perma.cc/RG46-XFSH>].

¹⁰⁵ NICOLE L. WATERS ANNE GALLEGOS, JAMES GREEN & MARTHA ROZSI, U.S. DEP'T OF JUST., NCJ 248874, CRIMINAL APPEALS IN STATE COURTS 1 (2015).

circumstances presented reckless conduct (i.e., a significant risk of death or serious injury) or (2) whether the record evidence establishes some other level of mens rea necessary for conviction. The remaining cases in the research sample involved (1) challenges to sentences or other consequences of CLUV convictions ($n = 9$, 14.1%), or (2) questions of statutory interpretation and validity ($n = 6$, 9.4%). The qualitative results reported in Part III, Sections B.2 through B.4 explain how courts grappled with each of these types of claims.¹⁰⁶

TABLE 6: CROSSTABULATION OF
CASE INQUIRY TYPE AND FINAL CASE OUTCOME

Outcome		General Case Inquiry			
		Sufficiency of the Evidence	Consequences	Statutory Construction	Total
Prosecution	Count	33	9	2	44
	% within	67.3%	100.0%	33.33%	68.75%
Defense	Count	16	0	4	20
	% within	32.6%	0.00%	66.66%	31.25%
Total	Count	49	9	6	64
	% within	76.56%	14.06%	9.38%	100%

$$\chi^2 = 7.6388, p = .022; \text{Fisher's exact: } p = .017$$

As Table 6 illustrates, the type of claims being adjudicated was significantly related to case outcomes. Three points stand out from the data. First, although twice as many cases involving appeals based on the sufficiency of the evidence resulted in the affirmance of convictions, sixteen of forty-nine (32.6%) of such cases resulted in appellate decisions in favor of the defense. This is a notable finding because the reversal rate on appeal for insufficiency of the evidence is typically dramatically lower—8.1% nationwide according to the Bureau of Justice Statistics.¹⁰⁷ Second, courts affirmed sentences or otherwise denied collateral relief from CLUV-related convictions in all nine (100%) of the cases that raised such claims on appeal. This is notably higher than the 83% sentence affirmance rate national for all types of criminal cases, perhaps due to the emotional punch that many of these cases present.¹⁰⁸ Finally, defendants won twice as many cases as the prosecution when it came to questions of statutory

¹⁰⁶ See *infra* notes 137–223 and accompanying text.

¹⁰⁷ WATERS ET AL., *supra* note 105, at 6 fig.3.

¹⁰⁸ *Id.*

interpretation. The qualitative results presented in Part III.B shed light on these findings.

2. Factual Predicates to CLUV

Table 7 shows the distribution of the circumstances under which CLUV occurred in the sixty-four cases in the research sample. The circumstances were not significantly related to case outcomes.

TABLE 7: CLUV CIRCUMSTANCES IN THE SAMPLE

Circumstance	<i>N</i> (%)
Child Forgotten in Vehicle	14 (21.88%)
Child Gained Access to Vehicle	1 (1.56%)
Child Knowingly Left Unattended in Vehicle	47 (73.44%)
Unknown Circumstances	2 (3.13%)
Total	64 (100.00%)

$$\chi^2 = 0.6318, p > 0.73, \text{ n.s.}; \text{ Fisher's exact } p = 1.00$$

Despite the lack of statistically significant differences between these reasons and case outcomes, qualitative analysis revealed a notable finding that is not evident from the statistical results. In twelve of the sixty-one (19.6%) cases in which a caregiver either knowingly left a child ($n = 47$) or forgot a child ($n = 14$) in a vehicle, the event coincided with the caregiver either being under the influence of drugs or alcohol, or engaging in criminal activity like shoplifting. This finding is discussed in detail in Part III.B.1.

3. CLUV-Specific Laws

Twenty-seven cases (42.2%) occurred in states that had a specific CLUV law, whereas the remaining thirty-seven cases (57.8%) transpired in states without such laws. Although the chi-square analysis of the relationship between the presence of such a law and case outcome was not statistically significant at the 0.05 alpha level, ($\chi^2 = 3.784, p < 0.052$), it closely approached significance and therefore is included in the regression model reported in Table 9. Care should be taken in how to interpret this finding. It is likely due, in part, to how long ago some of the cases were decided. Recall that the research sample covered a thirty-one-year span of time between 1990 and 2021. Because CLUV laws are comparably new, that might explain why a majority of the cases occurred in jurisdictions without a CLUV law, rather than indicating that CLUV laws are related to case outcomes. And most importantly, the data does not support any

interpretation that indicates CLUV laws are related to a reduction in the incidence of the phenomenon.

4. Duration of CLUV Incident

Twenty-two cases (34.4%) involved a child being left unattended in a car for thirty minutes or less. Ten cases (15.6%) involved a child being left anywhere from thirty-one minutes to sixty minutes. Twenty-three (35.9%) cases involved a child being left anywhere from 61 minutes to 720 minutes. The amount of time was unknown for nine cases (14.1%). The relationship between the amount of time a child was left unattended and the final case outcome was not statistically significant ($\chi^2 = 0.205, p < 0.903$). Nonetheless, because the duration of a CLUV incident is medically salient, we included this variable in the logistic regression model with an abundance of caution since it might prove significant when controlling for other factors.

5. Child Age

As Table 8 illustrates, the age of the children left unattended in vehicles is significantly related to case outcome.

TABLE 8: CROSTABULATION OF AGE AND FINAL CASE OUTCOME

Outcome		Age of CLUV				
		<i>Infant</i>	<i>Toddler</i>	<i>Early Childhood</i>	<i>School-Age</i>	<i>Total</i>
Prosecution	count	26	2	2	9	39
	% within	66.7%	5.0%	5.0%	23.1%	68.4%
<i>Defense</i>	count	5	1	5	7	18
	% within	27.8%	7.1%	29.4%	38.9%	31.6%
Total	count	31	3	7	16	57
	% within	54.3%	5.3%	12.3%	28.1%	100%

$$\chi^2 = 9.0353, p = .022; \text{Fisher's exact: } p = .014$$

6. Prediction of Case Outcomes

Table 9 presents the results of the logistic regression with the case outcome variable and the predictor variables of age, CLUV law, the transformed time variable, and a condensed version of the case classification variable.¹⁰⁹ Notably, age

¹⁰⁹ Because all of the appeals challenging sentences or other consequences of convictions were denied (i.e., 100% resolved in favor of prosecution), that category of case dispute type is a perfect predictor of case outcome in the dataset. That category of case therefore needs to be eliminated from the logistic regression model to avoid the so-called “zero-cells” problem. See Xiao Chen, Phil Ender, Michael Mitchell & Christine Wells, UCLA Statistical Consulting Grp., *Logistic Regression Diagnostics*, in STATA WEB BOOKS LOGISTIC

continued to be the only significant factor ($p < .008$). As the age of the victim increased, the odds of the court siding with the prosecution and upholding a conviction decreased.

TABLE 9: LOGISTIC REGRESSION OF CLUV CASE OUTCOMES

Observations	51		
LR Chi2(3)	13.82		
Model p - value	0.0079		
Pseudo R ²	0.2087		
Regressors	Odds Ratio	Standard Error	p - value
<i>Age</i>	0.50	0.13	0.008
<i>CLUV Law</i>	0.31	0.23	0.117
<i>Length of Time</i>	1.59	0.66	0.260
<i>Statutory Construction Claim</i>	0.20	0.22	0.150
<i>Constant</i>	7.30	7.63	0.057

B. Qualitative Findings

1. CLUV, Drugs, Alcohol, and Other Crimes ($n = 13$, 20.3%)

The first notable theme that emerged during our qualitative review of cases in the research sample was that caregivers in roughly one out of every five cases were either under the influence of alcohol or other drugs at the time of the CLUV incident or they were arrested for other crimes in addition to those related to CLUV.¹¹⁰ The substance use or other offenses appear to have been causally related to the CLUV event in most, if not all, of these cases.

Drug or alcohol use can lead caregivers to become too impaired to perceive the whereabouts of children or, alternatively, to leave children unattended while they obtain or use the substance(s) in question. Consider what occurred in *Shouse v. Commonwealth*:

REGRESSION WITH STATA, <http://stats.oarc.ucla.edu/stata/webbooks/logistic/chapter3/lesson-3-logistic-regression-diagnostics/> [http://perma.cc/FF48-SNVF] (last visited Aug. 5, 2022). Accordingly, we collapsed the data into two categories—namely whether a case presents either a statutory construction claim or some other type of claim.

¹¹⁰ *Shouse v. Commonwealth*, 481 S.W.3d 480 (Ky. 2015) (drugs/alcohol); *State v. Spivey*, No. C-200125, 2021 WL 3234383 (Ohio Ct. App. July 30, 2021) (shoplifting); *N.J. Div. of Child Prot. & Permanency v. M.D.G.*, No. A-5418-18T2, 2020 WL 6880114 (N.J. Super. Ct. App. Div. Nov. 24, 2020) (drugs/alcohol); *People v. Rudell*, 78 N.E.3d 541 (Ill. App. Ct. 2017) (drugs/alcohol); *N.J. Div. of Child Prot. & Permanency v. J.D.*, 148 A.3d 128 (N.J. Super. Ct. App. Div. 2016) (drugs/alcohol); *State v. Bates*, No. E2014-00725-CCA-R3-CD, 2015 WL 1593657 (Tenn. Ct. App. Apr. 7, 2015) (drugs/alcohol); *Cuyahoga Heights v. Majors*, No. 100687, 2014 WL 3778323 (Ohio Ct. App. July 31, 2014) (drugs/alcohol); *State v. Cartulla*, No. 2008-L-133, 2009 WL 1655005 (Ohio Ct. App. June 12, 2009) (drugs/alcohol); *Fernandez v. State*, 269 S.W.3d 63 (Tex. App. 2008) (shoplifting); *State v. Watchman*, 122 P.3d 855 (N.M. Ct. App. 2005) (drugs/alcohol); *State v. Sammons*, 889 So. 2d 857 (Fla. Dist. Ct. App. 2004) (drugs/alcohol); *Commonwealth v. Nebel*, 795 N.E.2d 609 (Mass. App. Ct. 2003) (lewd conduct); *Millslagle v. State*, 81 S.W.3d 895 (Tex. App. 2002) (drugs/alcohol).

Shouse took a Xanax mid-afternoon, and then dropped her two-year-old son off at her mother's while she went shopping with a friend. At about eight in the evening, she retrieved her son and went to their apartment where she took a second Xanax. A friend stopped by at about 10:30 p.m. and stayed until about 12:30 a.m., when Shouse drove the friend to Jeff Burch's apartment to obtain marijuana. She then drove Burch to a nearby Waffle House and back to his apartment, where they sat in the car and talked for about an hour. Burch gave her some marijuana, but both claim they did not smoke it at that time. At about 3:00 a.m., Shouse drove to a Thornton's, bought doughnuts and a drink, and then went home. She got several items out of the car, went inside, and fell asleep. She left her son in the car.

Burch and others tried to contact Shouse until about 3:00 p.m. the next day, when her mother went to the apartment to check on her and the child. Shouse, who appeared startled and confused, did not know where her son was. The grandmother ran to the car where the child was still strapped in his car seat. He was pronounced dead at the scene.¹¹¹

When officers arrived at Shouse's apartment, they observed "a number of drugs."¹¹² These facts likely contributed to the state charging Shouse with wanton murder and criminal abuse.¹¹³ The state also charged her with wanton endangerment for having driven the vehicle with her child in the car while she was under the influence.¹¹⁴ A jury convicted her of all three charges and a judge sentenced her to thirty-five years imprisonment.¹¹⁵

People v. Rudell similarly illustrates how a defendant's use of drugs or alcohol seemingly contributes to prosecutors moving forward with criminal charges in CLUV cases, even when a child is rescued.¹¹⁶ *Rudell* involved a defendant who left her six-month-old child in a car while she attended a party.¹¹⁷ She drank to excess—so much so that an officer testified she appeared to him as being "extremely intoxicated, a 10 on a scale of 1 to 10."¹¹⁸ A passerby flagged down police to report the unattended infant and firefighters subsequently removed the crying baby from the vehicle.¹¹⁹ After a bench trial, the court convicted her of endangering the life of a child and public intoxication.¹²⁰ She was

¹¹¹ *Shouse*, 481 S.W.3d at 482.

¹¹² *Id.*

¹¹³ *See id.*

¹¹⁴ *Id.*

¹¹⁵ *Id.* at 483.

¹¹⁶ *See People v. Rudell*, 78 N.E.3d 541, 542, 544 (Ill. App. Ct. 2017).

¹¹⁷ *See id.* at 543.

¹¹⁸ *Id.* at 543.

¹¹⁹ *See id.* at 542–43.

¹²⁰ *See id.* at 542, 544. The child endangerment statute contains a specific provision relevant to CLUV:

(a) A person commits endangering the life or health of a child when he or she

sentenced to six months of probation, parenting classes, and alcohol treatment.¹²¹

After substance use, shoplifting by childcare providers was the next most common factual circumstance contributing to CLUV.¹²² Importantly, CLUV while caregivers engage in a crime like shoplifting potentially exposes children to a qualitatively different type of risk than substance abuse as *State v. Spivey* illustrates.¹²³

The defendant in *Spivey* left her six-year-old and three-year-old grandchildren in her car while she shoplifted headphones from a department store.¹²⁴ After a security guard detained her, she alerted him to the fact that she had left the children unattended in the parking lot.¹²⁵ The guard notified police, who subsequently found the children “wearing winter coats” while sitting in a locked vehicle with “a plastic bag over the front-passenger window and frost on the windows” while the “outside temperature was approximately 15 degrees¹²⁶ After being convicted of two counts of child endangerment, among other charges, she appealed arguing that the evidence was insufficient to prove “that she recklessly created a substantial risk of harm to her grandchildren.”¹²⁷ In upholding her conviction, the *Spivey* court reasoned that:

[She] knowingly took the risk of getting caught and being detained for her actions, resulting in the children being left unattended in the car for a potentially unknown amount of time. Ball took the risk that she could have been put in a room by herself with no way to alert anyone to the children in the car. And, even though she was able to tell the

knowingly: (1) causes or permits the life or health of a child under the age of 18 to be endangered; or (2) causes or permits a child to be placed in circumstances that endanger the child’s life or health. . . .

(b) A trier of fact may infer that a child 6 years of age or younger is unattended if that child is left in a motor vehicle for more than 10 minutes.

720 ILL. COMP. STAT. 5/12C-5 (2013).

¹²¹ See *Rudell*, 78 N.E.3d at 544.

¹²² See generally *State v. Spivey*, No. C-200125, 2021 WL 3234383 (Ohio Ct. App. July 30, 2021); *Fernandez v. State*, 269 S.W.3d 63 (Tex. App. 2008).

¹²³ See *Spivey*, 2021 WL 3234383, at *3.

¹²⁴ *Id.*

¹²⁵ *Id.*

¹²⁶ *Id.* at *1, *2.

¹²⁷ *Id.* The child endangerment statute under which the defendant was charged did not contain a specific CLUV provision, but rather provides as follows:

No person, who is the parent, guardian, custodian, person having custody or control, or person in loco parentis of a child under eighteen years of age or a mentally or physically handicapped child under twenty-one years of age, shall create a substantial risk to the health or safety of the child, by violating a duty of care, protection, or support. It is not a violation of a duty of care, protection, or support under this division when the parent, guardian, custodian, or person having custody or control of a child treats the physical or mental illness or defect of the child by spiritual means through prayer alone, in accordance with the tenets of a recognized religious body.

OHIO REV. CODE ANN. § 2919.22 (West 2019).

Target employee about the children, there was no guarantee of how quickly the police could arrive to extricate the children from the car. Ball's behavior demonstrated a heedless indifference to the consequences of her actions.¹²⁸

As the court in *Spivey* noted,¹²⁹ a number of factors could explain why the case ended in tragedy. Given the risks of such outcomes, it is unsurprising why prosecutors move forward with child endangerment charges against caregivers who engage in crimes like shoplifting while leaving children unattended in vehicles.¹³⁰ Indeed, the defendant in *Spivey* received an arguably light sentence of 180 days in county jail, largely because the charges were misdemeanor offenses.¹³¹ But in some jurisdictions, prosecutors can prosecute CLUV as a felony as illustrated by *Fernandez v. State*.¹³²

As in *Spivey*, the defendant in *Fernandez* shoplifted from a Target while she left a fifteen to eighteen-month-old infant in her care locked in her car.¹³³ When police rescued the child, “[t]he windows were rolled up; the baby was warm, sweating, and crying; and the child had a soiled diaper.”¹³⁴ In addition to CLUV charges, the prosecution sought and obtained a conviction for child abandonment, a felony charge for which the defendant received a sentence of incarceration for two years.¹³⁵ The Texas Court of Appeals affirmed both of the convictions.¹³⁶

2. Consequences of CLUV-Related Convictions ($n = 9$, 14.0%)

Nine cases in the sample dealt with the consequences associated with CLUV convictions.¹³⁷ These cases primarily

¹²⁸ *Spivey*, 2021 WL 3234383, at *3.

¹²⁹ *Id.*

¹³⁰ Whether such prosecutions actually deter others from engaging in such conduct, however, remains an open question.

¹³¹ See *Spivey*, 2021 WL 3234383, at *2.

¹³² See *Fernandez v. State*, 269 S.W.3d 63, 64 (Tex. App. 2008).

¹³³ *Id.*

¹³⁴ *Id.*

¹³⁵ *Id.* The court suspended the term of incarceration and in lieu of the incarceration, released the defendant to community supervision for five years. *Id.*

¹³⁶ See *infra* notes 209–213 and accompanying text.

¹³⁷ See generally *State v. Marques*, No. 1 CA-CR 17-0657 PRPC, 2018 WL 1955453 (Ariz. Ct. App. Apr. 26, 2018) (denying post-conviction relief for a twenty-three-year sentence for child abuse that was imposed following the death of CLUV); *Commonwealth v. Park*, No. 671 EDA 2015, 2015 WL 6664841 (Pa. Super. Ct. Oct. 30, 2015) (denying the expungement of a misdemeanor charge of endangering the welfare of a child); *State v. Mendez-Palmas*, No. A-5967-12T4, 2014 WL 5285706 (N.J. Super. Ct. App. Div. Oct. 16, 2014) (affirming the denial of pretrial intervention/diversion for child neglect); *Commonwealth v. Shedden*, No. 533 MDA 2013, 2013 WL 11250371 (Pa. Super. Ct. Nov. 6, 2013) (affirming the imposition of a prison sentence); *State v. Hart*, No. M2012-00967-CCA-R3-CD, 2013 WL 1324328 (Tenn. Crim. App. Apr. 3, 2013) (affirming the imposition of a prison term in lieu of available alternative sentences); *Brehe v. Mo. Dept. of Elementary & Secondary Educ.*, 213 S.W.3d 720 (Mo. Ct.

questioned the proportionality of the punishment or attempted to expunge of the relevant convictions. Overall, the courts did not take favorably to such claims as evidenced by the fact that appellate courts in all nine of these cases rejected the appellants' arguments. *State v. Long* is illustrative.¹³⁸

The defendant in *Long* drove a van for a daycare facility.¹³⁹ On a day she failed to check that all children were out of the van when she dropped them off in the morning, a twenty-two-month-old girl remained in the van for approximately 7.5 hours until she was found dead in the vehicle at the end of the workday.¹⁴⁰ The defendant pled guilty to the low-level felony of reckless homicide in exchange for a two-year sentence as a so-called "standard offender which means that she statutorily could have qualified for the period of incarceration to be suspended while she was on probation."¹⁴¹ The trial court denied the alternate sentence, citing the seriousness of the offense and the need for other daycare workers to be reminded of what can happen if they abandon their duty to care for the children under their supervision.¹⁴² She appealed and the Tennessee Court of Criminal Appeals affirmed, reasoning that:

Generally, to deny probation or another alternative sentence based on the seriousness of the offense, the offense "as committed, must be 'especially violent, horrifying, shocking, reprehensible, offensive, or otherwise of an excessive or exaggerated degree,' and the nature of the offense must outweigh all factors favoring" an alternative sentence.

We agree with the trial court that the circumstances surrounding this offense are particularly shocking and reprehensible and that the nature of the offense outweighs the factors favoring probation or another alternative sentence. The Defendant pled guilty to reckless homicide for her participation in circumstances leading to the death of . . . a twenty-two-month-old child. The Defendant was charged with the responsibility of picking up young children and delivering them to the daycare center. She clocked out and left on July 21, 1999, while [the

App. 2007) (holding that second-degree child endangerment is not, *ipso facto*, a crime of moral turpitude that should result in revocation of a teaching license, but rather must be evaluated on the facts and circumstance of the underlying event); *State v. Long*, No. W2000-02773-CCA-R3-CD, 2001 WL 792624 (Tenn. Crim. App. July 13, 2001) (affirming the imposition of a prison term in lieu of available alternative sentences); *People v. Nicholas*, No. 38046, 2008 WL 2369755 (N.Y. City Ct. June 9, 2008) (granting a motion to bar the sealing of a criminal record); *People v. Tyre*, No. 39230, 2008 WL 2369753 (N.Y. City Ct. June 9, 2008) (holding that a criminal record should not be sealed).

¹³⁸ *Long*, 2001 WL 792624, at *1.

¹³⁹ *Id.*

¹⁴⁰ *See id.*

¹⁴¹ *Id.*; *see also id.* at *3 ("A defendant who 'is an especially mitigated or standard offender convicted of a Class C, D, or E felony is presumed to be a favorable candidate for alternative sentencing options in the absence of evidence to the contrary.") (quoting TENN. CODE ANN. § 40-35-102(6) (2010)).

¹⁴² *See id.* at *2.

child] was still strapped into her car-seat. Due to her tender age, the child was unable to free herself from the car-seat or otherwise remove herself from the van. Her well-being was entirely dependent upon the care and attention of others. Because the Defendant did not fulfill her responsibility of safely delivering [the child] into the daycare center, the child remained in the stifling hot van for seven and one-half hours, where she ultimately died from the heat in the van.¹⁴³

Cases in which defendants sought to seal their convictions or otherwise expunge their criminal records followed a similar trajectory insofar as courts cited the seriousness of the offense and the need to prioritize the safety of children as grounds for denying such requests—even in cases where the law typically would seal convictions at a certain level of criminal offense.¹⁴⁴ Consider what the court said in *People v. Nicholas*:

The decision of whether or not to seal a record under 160.55(1) is based upon whether or not it is in the interest of justice to do so. There is a body of jurisprudence dealing with leaving a child alone arising from criminal and family court decisions that are helpful in deciding how to apply the “interest of justice” standard in this case where a child was left unattended in a motor vehicle by the defendant.

....

The facts admitted to by Ms. Nichols were that she left an eighteen month old child alone in a vehicle strapped into a car seat on March 16, 2007 at 4:30 p.m. in a public parking lot for over 25 minutes with the motor running while she had a tanning session.

....

The Court finds [from] the conduct of the defendant in this case . . . [that] it was “reasonably foreseeable that extreme harm could come to a young child” left alone at age 18 months in a car with its motor running in a public parking lot at dusk on a March evening over twenty minutes while the defendant attends a tanning session, i.e., sexual predators, carjacking, carbon monoxide, sudden illness of child.

....

The Court, then, finds that the interest of society in the safety and welfare of children by keeping this record unsealed is greater than society’s interest in relieving the defendant of the “stigma” a public arrest record entails.¹⁴⁵

¹⁴³ *Id.* at *4 (quoting *State v. Cleavor*, 691 S.W.2d 541, 543 (Tenn. 1985)) (citations omitted).

¹⁴⁴ See *Commonwealth v. Park*, No. 671 EDA 2015, 2015 WL 6664841 (Pa. Super. Ct. Oct. 30, 2015); *People v. Tyre*, No. 39230, 2008 WL 2369753 (N.Y. City Ct. June 9, 2008)

¹⁴⁵ *People v. Nicholas*, No. 38046, 2008 WL 2369755, *1, *4, *6 (N.Y. City Ct. June 9, 2008) (citation omitted).

3. Sufficiency of the Evidence ($n = 49$, 76.5%)

As previously stated, the majority of cases in the research sample involved appeals challenging the sufficiency of the evidence at trial involving violations of CLUV-specific laws, homicide statutes, or laws criminalizing child endangerment, neglect, or abuse.¹⁴⁶

a. Establishing Risk

One of the most common claims in sufficiency of the evidence appeals revolved around questions of whether the actions of the defendants posed significant risks to the well-being of children. Challenges to the application of child endangerment laws on vagueness grounds—because they do “not inform the public that leaving a child in a car unattended constitutes endangering the

¹⁴⁶ See *State v. Taylor*, 491 P.3d 737 (N.M. 2021); *Miranda-Cruz v. State*, 432 P.3d 746 (Nev. 2018); *Allison v. State*, No. 661, 2015, 2016 WL 5462439 (Del. Sept. 28, 2016); *Dep't of Child. & Fams., Div. of Child Prot. & Permanency v. E.D.-O.*, 121 A.3d 832 (N.J. 2015); *State v. Thompson*, 647 S.E.2d 526 (W. Va. 2007); *State v. Watchman*, 122 P.3d 855 (N.M. Ct. App. 2005); *People v. Maynor*, 683 N.W.2d 565 (Mich. 2004); *Crisp v. State*, 20 S.W.3d 394 (Ark. 2000); *State v. Spivey*, No. C-200128, No. C-200129, 2021 WL 3234383 (Ohio Ct. App. July 30, 2021); *N.J. Div. of Child Prot. & Permanency v. M.D.G.* No. A-5418-18T2, 2020 WL 6880114 (N.J. Super. Ct. App. Div. Nov. 24, 2020); *Theford v. State*, No. 05-18-00884-CR, 2020 WL 5087779 (Tex. App. Aug. 28, 2020); *People v. Gibson*, No. 5-17-0287, 2020 WL 3403048 (Ill. App. Ct. June 18, 2020); *Hicks v. State*, 262 So. 3d 846 (Fla. Dist. Ct. App. 2018); *Harris v. State*, 272 So. 3d 1201 (Ala. Crim. App. 2018); *State v. M.M.-P.* No. A-1281-16T4, 2018 WL 3096971 (N.J. Super. Ct. App. Div. June 25, 2018); *Ives v. State*, No. 08-16-00026-CR, 2017 WL 3887444 (Tex. App. Sept. 6, 2017); *Hannon v. Commonwealth*, 803 S.E.2d 355 (Va. Ct. App. 2017); *People v. Rudell*, 78 N.E.3d 541 (Ill. App. Ct. 2017); *N.J. Div. of Child Prot. & Permanency v. J.D.*, 148 A.3d 128 (N.J. Super. Ct. App. Div. 2016); *N.J. Div. of Child Prot. & Permanency v. S.G.*, No. A-1408-14T4, 2016 WL 3981121, at *2 (N.J. Super. Ct. App. Div. July 26, 2016); *Commonwealth v. Boots*, No. 297 WDA 2015, 2016 WL 4719711, at *1 (Pa. Super. Ct. June 24, 2016); *Commonwealth v. Faulks*, No. 542 MDA 2015, 2015 WL 7076778, at *1 (Pa. Super. Ct. Nov. 12, 2015); *People v. Rhoades*, No. 326047, 2015 WL 4507572, at *1 (Mich. Ct. App. July 23, 2015); *State v. Bates*, No. E2014-00725-CCA-R3-CD, 2015 WL 1593657, at *1 (Tenn. Crim. App. Apr. 7, 2015); *Miller v. Commonwealth*, 769 S.E.2d 706, 709 (Va. Ct. App. 2015); *Village of Cuyahoga Heights v. Majors*, Nos. 100687, 100689, slip op. at 2 (Ohio Ct. App. July 31, 2014); *SM v. State*, No. 1108021849, 2012 WL 1560402, at *2 (Del. Fam. Ct. Apr. 4, 2012); *Long v. State*, 83 So. 3d 980 (Fla. Dist. Ct. App. 2012); *State v. Lewis*, 948 N.E.2d 487, 491 (Ohio Ct. App. 2011); *Whitfield v. Commonwealth*, 702 S.E.2d 590, 591 (Va. Ct. App. 2010); *City of Beachwood v. Hill*, No. 93577, 2010 WL 2783140, at *2 (Ohio Ct. App. July 15, 2010); *State v. Hawkins*, No. 2008CA 00280, 2009 WL 3155078, at *2 (Ohio Ct. App. Sept. 29, 2009); *State v. Hughes*, No. 17-09-02, 2009 WL 2488102, at *1 (Ohio Ct. App. Aug. 17, 2009); *State v. Cartulla*, No. 2008-L-133, 2009 WL 1655005, at *2 (Ohio Ct. App. June 12, 2009); *State v. Obeidi*, 155 P.3d 80, 82 (Or. Ct. App. 2007); *Vreeland v. State*, No. 13-04-368-CR, 2006 WL 3028065, at *1 (Tex. App. Oct. 26, 2006); *State v. Todd*, 183 S.W.3d 273, 275 (Mo. Ct. App. 2005); *State v. EJ*, No. 0404020249, 2005 WL 3509700, at *1 (Del. Fam. Ct. Apr. 14, 2005); *State v. Sammons*, 889 So. 2d 857, 859 (Fla. Dist. Ct. App. 2004); *People v. Gilbert*, No. H025418, 2004 WL 2416533, at *2 (Cal. Ct. App. Oct. 29, 2004); *Kelly v. Commonwealth*, 592 S.E.2d 353, 355 (Va. Ct. App. 2004); *Commonwealth v. Nebel*, 795 N.E.2d 609, 612 (Mass. App. Ct. 2003); *Millslage v. State*, 81 S.W.3d 895, 897 (Tex. App. 2002); *State v. Morton*, 741 N.E.2d 202, 205 (Ohio Ct. App. 2000); *People v. Kolzow*, 703 N.E.2d 424, 426 (Ill. App. Ct. 1998); *People v. Cenat*, 671 N.Y.S.2d 578, 579 (N.Y. Crim. Ct. 1997); *People v. Turner*, 619 N.E.2d 781, 782-83 (Ill. App. Ct. 1993).

welfare of a child”—were universally rejected.¹⁴⁷ Vagueness challenges aside, appellate courts nearly always upheld trial court determinations that leaving children unattended in vehicles presented risk covered by applicable statutes.¹⁴⁸ In fact, many cases involved determinations that children had been exposed to significant risk beyond those attendant to exposure to weather conditions while unattended in vehicles. *State v. Obeidi* serves as a good example.¹⁴⁹

In *Obeidi*, the defendant had left her one and three-year-old children in her SUV.¹⁵⁰ She claimed that she did not expect her children to be in any danger because she planned on being in the store for a short time to buy diapers.¹⁵¹ Additionally, “she locked the SUV and turned on the car alarm, and she left the windows partially open for air circulation.”¹⁵² However, she was in the store for between twenty and thirty minutes, during which time a witness observed the older child lean out the open window, “pull on the outside door handle, and nearly fall onto the pavement.”¹⁵³ Those facts, as well as concerns that the open window could have allowed anyone in the high crime area to have taken the children from the SUV, prompted the witness to call the police who, upon arrival, found the children “fine” just as the defendant returned to her vehicle.¹⁵⁴ The Oregon Court of Appeals affirmed the defendant’s conviction for child neglect under these facts, reasoning that in addition to the risks of the toddler falling out of the open window,

¹⁴⁷ See *State v. Watson*, 751 A.2d 1004, 1006 (Me. 2000); see also, e.g., *State v. Ducker*, No. 01C01-9704-CC-00143, 1999 WL 160981, at *12–13 (Tenn. Crim. App. Mar. 25, 1999), *aff’d*, 27 S.W.3d 889 (Tenn. 2000); *State v. George*, 656 A.2d 232, 233–34 (Conn. App. Ct. 1995).

¹⁴⁸ The court in *Watson* noted that:

[T]he jury had competent evidence that defendant left his three and one-half month old baby unattended and lightly clad in an unlocked car for as long as twenty-five minutes. The car was in a shopping center parking lot in the middle of winter and the temperature was cold at the time. The jury also heard defendant’s testimony that he consciously considered as his only options bringing his daughter into the store and carrying her or putting her in a shopping cart without a built-in child seat or leaving her in the car. He stated that he felt she was safest in the car.

From this competent evidence, the jury rationally could have found . . . that defendant consciously disregarded the risks attendant upon leaving the child unattended in a car under these circumstances; and that defendant’s disregard of the risk was a gross deviation from the conduct of a reasonable and prudent person.

Watson, 751 A.2d at 1007.

¹⁴⁹ See *Obeidi*, 155 P.3d at 81 n.1.

¹⁵⁰ See *id.* at 81.

¹⁵¹ *Id.*

¹⁵² *Id.*

¹⁵³ See *id.* at 81–82.

¹⁵⁴ See *id.*

both children faced risks of assault and abduction because they were left alone in “a busy, high-crime area.”¹⁵⁵

b. Proving Mens Rea

The other common argument raised in sufficiency of the evidence appeals concerned proof of mens rea. A comparison of three key cases demonstrates how questions of intent typically present in CLUV cases, especially when caregivers claim to have forgotten children.¹⁵⁶

In both *Whitfield v. Commonwealth*¹⁵⁷ and *State v. Taylor*,¹⁵⁸ daycare workers were charged following the deaths of children who had been accidentally left in a daycare vehicle. The defendant in *Whitfield* was charged and convicted of involuntary manslaughter and felony child neglect stemming from the death of a thirteen-month-old that he left in the daycare van.¹⁵⁹ At trial, he testified in his own defense, admitting that he normally checked the van, but failed to do so on that particular occasion.¹⁶⁰ He also noted:

[t]he daycare had also trained Whitfield to fill out a logbook in the van to help him keep track of the children he picked up and dropped off at the daycare. Whitfield did not use the van logbook that day, nor had he used it for several months beforehand. Instead, Whitfield admitted, he chose to rely solely on his memory.¹⁶¹

Both charges against Whitfield required proof of criminal negligence, but the way that level of mens rea is defined under Virginia law uses language that conflates traditional elements of recklessness and gross negligence.¹⁶² Indeed, case law

¹⁵⁵ See *id.* at 80, 84; see also *City of Beachwood v. Hill*, No. 93577., 2010 WL 2783140, at *1–4 (Ohio Ct. App. July 15, 2010) (noting risks similar to those in *Obeidi* regarding CLUV when windows are open and the vehicle is in a high-crime area); cf. *Allison v. State*, No. 661, 2015, 2016 WL 5462439, at *3 (Del. Sept. 28, 2016) (“In addition to the potential for the children to become dehydrated or overheated [on a hot and humid day], the children were distressed and crying [and one had even vomited]. Leaving young children alone in an unlocked car on an extremely hot day could likely cause physical and mental harm to the children.”).

¹⁵⁶ Cases in which courts engaged in statutory interpretation to determine the requisite mens rea for conviction are not included in this section. See *infra* text accompanying notes 256–262.

¹⁵⁷ See *Whitfield v. Commonwealth*, 702 S.E.2d 590, 591–92 (Va. Ct. App. 2010).

¹⁵⁸ See *State v. Taylor*, 491 P.3d 737, 739 (N.M. 2021).

¹⁵⁹ *Whitfield*, 702 S.E.2d at 591–92.

¹⁶⁰ *Id.* at 592.

¹⁶¹ *Id.*

¹⁶² See *id.* at 594. The court cited *Noakes v. Commonwealth*, 699 S.E.2d 284, 289 (Va. 2010), stating that:

Under Virginia law, criminal negligence occurs ‘when acts of a wanton or willful character, committed or omitted, show a *reckless or indifferent disregard* of the rights of others, under circumstances reasonably calculated to produce injury, or

paradoxically defines negligence as involving “reckless or indifferent disregard,” but case law allows for this standard to be met through an objective standard showing that “the defendant ‘either knew or *should have known* the probable results of his/her acts.’”¹⁶³ Applying this confusing standard, the court reasoned that the defendant in *Whitfield* had not experienced a “momentary, inadvertent act of ordinary negligence,” but rather had exhibited a “pattern of reckless indifference” by failing to check the van and not using safeguards like his logbook or the one inside the daycare used to check children in and out.¹⁶⁴

By comparison, *State v. Taylor* involved a miscommunication between two daycare workers.¹⁶⁵ In that case, the defendants left two children unattended in hot cars for roughly two hours and forty minutes when the outdoor temperature was ninety-one degrees Fahrenheit.¹⁶⁶ One child died and the other suffered significant neurological injuries, leading to charges of child abuse resulting in great bodily harm by reckless disregard¹⁶⁷ and child abuse resulting in death by reckless disregard.¹⁶⁸ Both defendants argued that “because they were not aware that the children were left in the vehicle, they could not have *consciously* disregarded the risk of leaving the children in the car,” which is the traditional standard for recklessness.¹⁶⁹ The Supreme Court of New Mexico agreed with the defendants that a substantial question existed about the sufficiency of the evidence and, therefore, ordered their release during the pendency of their appeal.¹⁷⁰

In *State v. Thompson*, a father was convicted of felony child neglect resulting in death after his two-year-old died as a result of being left in the family car for four hours on a day when outside temperatures exceeded eighty degrees Fahrenheit.¹⁷¹ After a largely sleepless night because the child had a fever and kept his parents up all night, the defendant awoke at 3:00 AM to find his trailer home flooding due to heavy rains.¹⁷² He carried his child to his car and then drove to various locations until the waters

which make it not improbable that injury will be occasioned, and the offender knows, or is charged with the knowledge of, the probable result of his or her acts.

Id. (internal citations and quotation marks omitted).

¹⁶³ *Id.*

¹⁶⁴ *Id.* at 594–95.

¹⁶⁵ *See Taylor*, 491 P.3d at 739.

¹⁶⁶ *Id.*

¹⁶⁷ *See id.* (citing N.M. STAT. ANN. § 30-6-1(D)–(E) (2009)).

¹⁶⁸ *See id.* (citing N.M. STAT. ANN. § 30-6-1(D), (F) (2009)).

¹⁶⁹ *Id.* at 743 (citing MODEL PENAL CODE § 2.02(2)(c) (AM. L. INST. 1985)).

¹⁷⁰ *Id.* at 745. An appeals court had affirmed the defendants’ convictions, but the state high court granted certiorari and the case remains pending as of this writing. *See generally State v. Taylor*, 493 P.3d 463 (N.M. Ct. App. 2021), *cert. granted*, 504 P.3d 533 (N.M. 2021).

¹⁷¹ *State v. Thompson*, 647 S.E.2d 526, 528 (W. Va. 2007).

¹⁷² *Id.*

receded.¹⁷³ They returned home in the mid-morning. After making it home, the defendant left the boy in the car and went into the trailer to change into dry clothes.¹⁷⁴ He maintained that he left the child “in the car because it was still raining,” the child was still running a fever, and the electricity was out.¹⁷⁵ He claimed that once inside, “he collapsed into sleep unintentionally by reason of physical exhaustion and did not wake up until he heard the restoration of electric power,” at which point the boy had been in the car for four to five hours.¹⁷⁶ The Supreme Court of Appeal of West Virginia affirmed his conviction and his indeterminate sentence of three to fifteen years imprisonment, largely because the mens rea for the offense was lower than recklessness or even gross negligence.¹⁷⁷ Indeed, the jury had been instructed in accordance with a statutory definition of “neglect” that “means the unreasonable failure by a parent, guardian or custodian of a minor child to exercise a minimum degree of care to assure the minor child’s physical safety or health.”¹⁷⁸ Applying what amounts to a negligence standard, the court concluded:

the evidence was there for the jury to conclude that the appellant contributed to the circumstances which led, inexorably, directly to [his son] Luke’s death from hyperthermia. The death was foreseeable. The appellant was aware of his own exhaustion from being up the entire night, and he knew that he was the only adult present to take responsibility for Luke. He could have carried Luke and the car seat into the trailer. Moreover, according to the State, the appellant entered the trailer to wait for [the child’s mother to] return, rather than simply to change clothes.¹⁷⁹

The *Thomson* case demonstrates that when a caregiver accidentally leaves their child unattended in a vehicle for what might seem perfectly understandable reasons, such actions may result in felony criminal liability, depending on the mens rea requirements in a jurisdiction.

¹⁷³ *Id.*

¹⁷⁴ *Id.*

¹⁷⁵ *Id.*

¹⁷⁶ *Id.* at 528–29.

¹⁷⁷ *Id.* at 529, 534. The court relied on statute in noting:

If any parent, guardian or custodian shall neglect a child under his or her care, custody or control and by such neglect cause the death of said child, then such parent, guardian or custodian shall be guilty of a felony and, upon conviction thereof, shall be fined not less than one thousand dollars nor more than five thousand dollars or committed to the custody of the Division of Corrections for not less than three nor more than fifteen years, or both such fine and imprisonment.

Id. (quoting W. VA. CODE § 61-8D-4a(a) (1997)).

¹⁷⁸ *Id.* at 533; W. VA. CODE § 61-8D-1(7) (1988).

¹⁷⁹ *Id.* at 534.

4. Statutory Construction or Constitutionality ($n = 6, 9.4\%$)

Six cases in the research sample involved questions of the meaning of purportedly ambiguous language in applicable statutes, or challenges to the constitutionality of the laws or the ways in which they were being applied in a specific case.¹⁸⁰ Most of these cases involve questions of statutory interpretation, the resolution of which impacted defendants who had been charged under such provisions.

a. What Intent Is Required?

Some state laws clearly identify the level of mens rea that the prosecution must establish for a CLUV-related conviction.¹⁸¹ Other state laws, however, are ambiguous, which has necessitated courts to clarify what level of mens rea, if any, is a required element of such offenses. Consider Michigan's statute:

A person who is responsible for the care or welfare of a child shall not leave that child unattended in a vehicle for a period of time that poses an unreasonable risk of harm or injury to the child or under circumstances that pose an unreasonable risk of harm or injury to the child.¹⁸²

In *People v. Haveman*, Michigan charged the defendant with violating this law.¹⁸³ The defendant in the case “parked her car in a Walmart parking lot and went inside to shop for one hour, leaving her three and five-year-old children and two dogs inside the vehicle with one window rolled down.”¹⁸⁴ An employee saw the children in the car and notified police who, in turn, arrested the mother.¹⁸⁵ At her trial for two counts of violating the CLUV law quoted above, she asserted that the statute required proof of specific intent, while the prosecution countered it needed only to prove general intent.¹⁸⁶ The court, however, reasoned that because the statute is silent with respect to the requisite mens rea, the CLUV offense carried strict liability. The defendant sought interlocutory review, which the Michigan Court of Appeals

¹⁸⁰ See generally *Shouse v. Commonwealth*, 481 S.W.3d 480 (Ky. 2015); *People v. Maynor*, 683 N.W.2d 565 (Mich. 2004); *People v. Haveman*, 938 N.W.2d 773 (Mich. Ct. App. 2019); *Fernandez v. State*, 269 S.W.3d 63 (Tex. App. 2008); *People v. Jordan*, 843 N.E.2d 870 (Ill. 2006); *State v. Ducker*, No. 01C01-9704-CC-00143, 1999 WL 160981 (Tenn. Crim. App. Mar. 25, 1999), *aff'd*, 27 S.W.3d 889 (Tenn. 2000).

¹⁸¹ E.g., CONN. GEN. STAT. ANN. § 53-21a(a)-(d) (2012) (knowingly); NEB. REV. STAT. ANN. § 28-710(2)(b) (1992) (knowingly, intentionally, or negligently); NEV. REV. STAT. ANN. § 202.485(1) (2005) (knowingly and intentionally); TENN. CODE ANN. § 55-10-803(a) (2007) (knowingly); TEX. PENAL CODE ANN. § 22.10(a) (1994) (intentionally or knowingly); UTAH CODE ANN. § 76-10-2202(2)(a) (2011) (intentionally, recklessly, knowingly, or with criminal negligence); WASH. REV. CODE ANN. § 46.61.685(1) (2004) (willfully).

¹⁸² MICH. COMP. LAWS ANN. § 750.135a(1) (2009).

¹⁸³ *Haveman*, 938 N.W.2d at 776.

¹⁸⁴ *Id.*

¹⁸⁵ *Id.*

¹⁸⁶ *Id.*

granted.¹⁸⁷ After noting that “strict liability is disfavored” for criminal offenses, the court concluded the offense required mens rea, but only of general intent.¹⁸⁸ The court reasoned that most other child welfare offenses under Michigan law required proof of mens rea.¹⁸⁹ The court also contended that the punishments—which ranged from up to ninety-three days in jail and up to a \$500 fine if a child sustained no injuries, to between ten to fifteen years in prison and \$5,000 to \$10,000 in fines if a child was seriously injured or died—also weighed in favor of interpreting the statutory intent as requiring proof of mens rea.¹⁹⁰

b. The Effect of Potentially Overlapping Statutes

Recall that *Shouse v. Commonwealth* illustrated how a defendant’s use of drugs or alcohol might cause prosecutors to view a CLUV incident as warranting moving forward with charges.¹⁹¹ With that decision having been made, prosecutors secured three convictions in *Shouse*—one for wanton murder, one for second-degree criminal abuse, and another for first-degree wanton endangerment.¹⁹² One of the key questions on appeal concerned the propriety of the wanton murder conviction.¹⁹³

Kentucky does not have a specific statute targeting CLUV, generally. But the state did amend its second-degree manslaughter statute to include a provision aimed at deaths which occur as a result of CLUV:

(1) A person is guilty of manslaughter in the second degree when he wantonly causes the death of another person, including but not limited to situations where the death results from the person’s:

(a) Operation of a motor vehicle;

¹⁸⁷ *Id.*

¹⁸⁸ *See id.* at 779, 782. The court noted that the CLUV law could not be properly considered a public welfare offense since that type of crime curtails conduct that runs “contrary to the interest of public safety,” such as those “dangers caused by ‘the industrial revolution, increased traffic, the congestion of cities, and the wide distribution of goods.’” *Id.* at 781 (internal citations omitted).

¹⁸⁹ *See id.* at 779–81.

¹⁹⁰ *See id.* at 781–82; *see also* *People v. Maynor*, 683 N.W.2d 565, 569 (Mich. 2004) (holding that when CLUV results in the death of a child and the defendant is charged with first degree child abuse, the prosecution must prove “not only that defendant intended to [commit the act], but also that . . . defendant intended to cause serious physical harm or . . . knew that serious physical harm would be caused [by the act]”); *see also id.* (“A person is guilty of child abuse in the first degree if the person *knowingly or intentionally causes serious physical harm or serious mental harm to a child*. Child abuse in the first degree is a felony punishable by imprisonment for not more than 15 years.”) (quoting MICH. COMP. LAWS ANN. § 750.136b(2) (West 2022)).

¹⁹¹ *See Shouse v. Commonwealth*, 481 S.W.3d 480, 482–83 (Ky. 2015); *see also supra* notes 110–115 and accompanying text.

¹⁹² *Shouse*, 481 S.W.3d at 482–83.

¹⁹³ *Id.* at 483.

(b) Leaving a child under the age of eight (8) years in a motor vehicle under circumstances which manifest an extreme indifference to human life and which create a grave risk of death to the child, thereby causing the death of the child.¹⁹⁴

As the statutory language makes clear, wanton conduct is an element of the offense. However, that same element is part and parcel of wanton murder under Kentucky law, which provides that a person commits murder under circumstances when he, she, or they “wantonly engages in conduct which creates a grave risk of death to another person and thereby causes the death of another person.”¹⁹⁵ The latter provision, which parallels the common law depraved heart murder rule, creates liability for an unintentional death that results from grossly reckless conduct—the conscious disregard of a known risk of death or serious injury to another person under circumstances manifesting an extreme indifference to the value of human life.¹⁹⁶ In *Shouse*, prosecutors sought and obtained a conviction for wanton murder, a more serious offense than second-degree manslaughter.¹⁹⁷ On appeal, the Supreme Court of Kentucky set aside the wanton murder charge, reasoning that the language included in the amendments to the second-degree manslaughter statute evidenced legislative intent that an unintentional death resulting from leaving a child age eight or younger in a vehicle, “under circumstances which manifest an extreme indifference to human life and which create a grave risk of death to the child,” constitutes manslaughter in the second degree, not murder.¹⁹⁸

The court in *Shouse* also vacated the defendant’s wanton endangerment charge because that offense requires conduct “manifesting extreme indifference to the value of human life.”¹⁹⁹ The court reasoned as follows:

There is a clear distinction between driving, even under the influence of drugs and in a vehicle with a spare donut tire on the car, and leaving a child abandoned in a car overnight to die. And no harm came from her driving at that point, so it is difficult to say that there was a substantial danger of death or serious physical injury. Otherwise, driving with a

¹⁹⁴ See KY. REV. STAT. ANN. § 507.040(1) (2000). The court in *Shouse* quoted from treatise to emphasize that the legislature had amended the second-degree manslaughter statute “to provide explicitly for homicide coverage of the situation where a person leaves a child under 8 years of age in a motor vehicle and in so doing causes its death.” *Shouse*, 481 S.W.3d at 483 (quoting ROBERT G. LAWSON & WILLIAM H. FORTUNE, KENTUCKY CRIMINAL LAW § 8.4(a), at 31 (Supp. 2006)).

¹⁹⁵ KY. REV. STAT. ANN. § 507.020(1)(b) (1984).

¹⁹⁶ See KY. REV. STAT. ANN. § 507.020 cmt. (Ky. Crime. Comm’n. 1974) (citing MODEL PENAL CODE § 201.2 cmt. 2 (AM. L. INST., Tentative Draft No. 9, 1959)).

¹⁹⁷ *Shouse*, 481 S.W.3d at 482–83.

¹⁹⁸ *Id.* at 482–88.

¹⁹⁹ *Id.* at 489.

donut tire replacing a flat to get home from a dinner where one had consumed a glass of wine would per se be first-degree wanton endangerment. Certainly a possibility of injury existed, but further proof of the degree of danger is necessary for the higher offense.²⁰⁰

In *State v. Ducker*, the defendant was charged with two counts of first degree murder, stemming from the deaths of her thirteen-month-old and twenty-three-month-old children.²⁰¹ She contended that she did not intend to kill her children, but the state's murder statute allowed for a first-degree murder conviction for the unintentional death of a child resulting from aggravated child abuse or aggravated child neglect.²⁰² A jury acquitted her on the first-degree murder charges, but convicted her of two counts of aggravated child abuse.²⁰³ On appeal, she attacked the latter conviction on the grounds that it could not be a lesser included offense of murder, primarily because aggravated child abuse requires a higher level of mens rea than the recklessness or gross recklessness for an unintentional homicide.²⁰⁴ The court rejected her argument and concluded that a lesser included offense analysis was misplaced because the state also recognizes that "a lesser grade or class of the charged offense[.]" even with different elements, statutorily satisfies the requirements of lesser included offenses:²⁰⁵

Tennessee law recognizes two types of lesser offenses that may be included in the offense charged in an indictment and, may, therefore, form the basis for a conviction: a lesser grade or class of the charged offense and a lesser included offense. The two, though similar, are not synonymous. An offense is "lesser included" in another "if the elements

²⁰⁰ *Id.* (emphasis omitted).

²⁰¹ *State v. Ducker*, No. 01C01-9704-CC-00143, 1999 WL 160981, at *1 (Tenn. Crim. App. Mar. 25, 1999), *aff'd*, 27 S.W.3d 889 (Tenn. 2000).

²⁰² *Ducker*, 1999 WL 160981, at *5; TENN. CODE ANN. § 39-13-202(a)(2) (1994).

²⁰³ *Ducker*, 1999 WL 160981, at *14. Child abuse, neglect, or endangerment becomes aggravated under Tennessee law when, among other factors, the underlying conduct results in serious bodily injury to a child. TENN. CODE ANN. § 39-15-402(a)(1) (1989). The non-aggravated forms of child abuse and neglect require knowledge as their requisite levels of mens rea:

(a) Any person who knowingly, other than by accidental means, treats a child under eighteen (18) years of age in such a manner as to inflict injury commits a Class A misdemeanor; provided, however, that, if the abused child is eight (8) years of age or less, the penalty is a Class D felony.

(b) Any person who knowingly abuses or neglects a child under eighteen (18) years of age, so as to adversely affect the child's health and welfare, commits a Class A misdemeanor; provided, that, if the abused or neglected child is eight (8) years of age or less, the penalty is a Class E felony.

(c)(1) A parent or custodian of a child eight (8) years of age or less commits child endangerment who knowingly exposes such child to or knowingly fails to protect such child from abuse or neglect resulting in physical injury or imminent danger to the child.

TENN. CODE ANN. § 39-15-401(a)-(c)(1) (West 2022).

²⁰⁴ *Ducker*, 1999 WL 160981, at *14.

²⁰⁵ *See id.*

of the greater offense, as those elements are set forth in the indictment, include but are not congruent with, all the elements of the lesser.” However, a lesser “grade or class” of offense is established by the legislature and is determined simply by reading the statutory provisions.

Necessarily included within the offense of aggravated child abuse . . . is the offense of child abuse and neglect. . . . [The murder statute] provides that, if fairly raised by the evidence, child abuse is a lesser offense of first degree murder. This provision, despite the appellant’s assertions, is necessarily encompassed within the aggravated child abuse statute. Accordingly, we hold that, in the present case, aggravated child abuse is a lesser included offense of first degree murder. . . .²⁰⁶

As the summaries of *Shouse* and *Ducker* should make clear, the cases centered on questions of different levels of potential liability in the wake of a CLUV incident causing the death of a child. Other cases involved similar questions with regard to the level of liability that should attach for child endangerment, child abuse, or child neglect when a child is rescued before conditions in a vehicle lead to the child’s death. Recall, for instance, *State v. Fernandez*, a case in which the defendant shoplifted while she left an infant unattended in her locked car.²⁰⁷ In addition to the CLUV charges discussed previously,²⁰⁸ the Texas Court of Appeals also affirmed a conviction on the defendant’s child abandonment charges over the defendant’s challenge that the felony count of child abandonment and the misdemeanor CLUV charge were *in pari materia* (on the same subject).²⁰⁹ The court quoted both statutes:

The child abandonment statute provides, “A person commits an offense if, having custody, care, or control of a child younger than 15 years, he intentionally abandons the child in any place under circumstances that expose the child to an unreasonable risk of harm.” The other statute at issue in this case provides, “A person commits an offense if he intentionally or knowingly leaves a child in a motor vehicle for longer than five minutes, knowing that the child is (1) younger than seven years of age; and (2) not attended by an individual in the vehicle who is 14 years of age or older.”²¹⁰

The court determined that the two statutes were not *in pari materia* because the felony child abandonment charge could only be committed “by a person having custody, care, or control of a child,” whereas the misdemeanor CLUV offense could be “committed by anyone.”²¹¹ Moreover, the two offenses differ with respect to essential elements, with the felony requiring proof of

²⁰⁶ *Id.* (citations omitted) (quoting *State v. Trusty*, 919 S.W.2d 305, 310 (Tenn. 1996)).

²⁰⁷ *See Fernandez v. State*, 269 S.W.3d 63, 64 (Tex. App. 2008).

²⁰⁸ *See supra* notes 132–136 and accompanying text.

²⁰⁹ *See Fernandez*, 269 S.W.3d at 66–67 (first quoting TEX. PENAL CODE ANN. § 22.041(b) (1993) (child abandonment); and then TEX. PENAL CODE ANN. § 22.10(a) (1984) (CLUV)).

²¹⁰ *Id.* at 66 (citations omitted).

²¹¹ *Id.* at 67.

exposure to some risk of unreasonable harm, whereas the CLUV offense does not.²¹² Thus, the two statutes need not be considered together and, therefore, separate convictions were appropriate.²¹³

c. Impermissible Statutory Presumptions

One case in the research sample raised an interesting issue about the limits of CLUV statutes' evidentiary presumptions. In *People v. Jordan*, the defendant had left his daughter in his car in sub-freezing temperatures while he went to go buy college textbooks.²¹⁴ A security officer at the university heard the baby crying and proceeded to contact the proper emergency authorities.²¹⁵ Jordan was ultimately convicted under the Illinois child endangerment statute, which contains a specific provision relating to leaving a child unattended in a vehicle for ten minutes or longer.²¹⁶ The key issue in the case concerned the wording of a subsection of the statute, which provided for a "rebuttable presumption that a person committed the offense if he or she left a child 6 years of age or younger unattended in a motor vehicle for more than 10 minutes."²¹⁷ The defendant argued this provision was unconstitutional because it operated to create a mandatory presumption of guilt.²¹⁸ The U.S. Supreme Court previously held that conclusive presumptions and mandatory rebuttal presumptions that shift the burden of persuasion to the defendant are unconstitutional because they contravene the presumption of innocence.²¹⁹ Additionally, Illinois case law had established the same holding with respect to mandatory rebuttable presumptions that shift the burden of production to the defendant.²²⁰ In light of these facts, the court in *Jordan* declared that portion of the statute unconstitutional.²²¹ Had that subsection of the statute been

²¹² *See id.*

²¹³ *See id.* at 68.

²¹⁴ *People v. Jordan*, 843 N.E.2d 870, 873-74 (Ill. 2006).

²¹⁵ *Id.* at 873.

²¹⁶ *Id.* at 872-73 (quoting 720 ILL. COMP. STAT. ANN. 5/12-21.6 (West 2002)). For the text of the statute, see *supra* note 120.

²¹⁷ *Jordan*, 843 N.E.2d at 872-73 (quoting 720 ILL. COMP. STAT. ANN. 5/12-21.6(b) (West 2002)).

²¹⁸ *See id.* at 876.

²¹⁹ *See id.* at 876-77 (citing *Sandstrom v. Montana*, 442 U.S. 510, 521-23 (1979)).

²²⁰ *Id.* at 877 (citing *People v. Watts*, 692 N.E.2d 315, 323 (Ill. 1998)). The court in *Watts* reasoned:

A production-shifting presumption places a burden on the defendant to come forward with a certain quantum of evidence to overcome the presumption. If the defendant does not satisfy that burden, the judge is required, in effect, to direct a verdict against the defendant on the element which is proved by the use of the presumption. This result conflicts with the longstanding rule that a verdict may not be constitutionally directed against a defendant in a criminal case.

Watts, 692 N.E.2d at 323.

²²¹ *Jordan*, 843 N.E.2d at 879.

permitted to stand, unless the defense submitted evidence to the contrary, it could have had the effect of requiring the trier-of-fact to accept that a child had been left in a vehicle unattended for ten minutes or more. The court severed that unconstitutional provision and concluded that even in the absence of any presumption, there was still sufficient evidence to support a conviction for child endangerment:

[A] rational trier of fact could have found that defendant knowingly endangered his infant daughter's life or health by leaving her unattended in his vehicle. Several factors bear upon that determination including the setting where the vehicle was parked, the weather conditions [a windy day when the outside air temperature was in the twenties], and the amount of time defendant left his daughter alone in the vehicle [as long as forty minutes].²²²

As a result of this finding, the court remanded the case for retrial—a result that is permissible since retrial of defendants after a finding of sufficient evidence of guilt does not violate double jeopardy.²²³

IV. DISCUSSION

We consider one of our null findings to be among the most interesting results in our study, namely that the circumstances under which a CLUV incident occurred was not a statistically significant predictor of case outcome. Put differently, on the whole, courts did not treat cases where a child was forgotten in a vehicle any differently than they did when a child was knowingly left unattended in a vehicle. Given the lack of difference in case outcomes across these two factual predicate situations, it seems imperative to raise more awareness about the dangers of CLUV. We summarize several ways to do that without resorting to the use of criminal law in Part IV.B.²²⁴ In this subsection, we discuss the significant finding from our quantitative and qualitative analyses.

A. Effectiveness of Formal Social Control Via Criminal Laws

Overall, it is difficult to ascertain the effectiveness of laws to reduce the incidence of CLUV because, as the analyses of the cases in the research sample demonstrate, the overwhelming majority of cases in which cases are prosecuted involve more extreme

²²² *Id.* at 877, 879. For other cases assessing risk, see *supra* notes 147–155. The court also noted that the child faced other risks beyond those associated with the weather:

[I]t is an unfortunate fact of modern urban life that the more populated the area, the greater the likelihood that some ill will befall a young child who is left unattended in a public place. A young child unattended in a public setting is easy prey for social predators who may happen by.

Jordan, 843 N.E.2d at 879.

²²³ *Id.* at 881 (citing, *inter alia*, *People v. Placek*, 704 N.E.2d 393, 396–97 (Ill. 1998)).

²²⁴ See *infra* notes 238–262 and accompanying text.

situations, typically those in which children either died or sustained serious injuries. By contrast, cases in which charges were filed for CLUV when children were timely recused were far less represented in the research sample. So, it may be that laws targeting CLUV are having some effect. After all, there is no way to gauge whether fewer children are actually being left in vehicles either knowingly or accidentally if the children survive without sustaining injuries. Certainly, such incidents would not be reflected in databases like those maintained by No Heat Stroke, which only tracks pediatric vehicular heatstroke cases.²²⁵ Still, the qualitative data analyses in the present study suggest that some laws are operating as presumably intended and others require some modifications.

Shouse v. Commonwealth is one of the cases that perhaps best illustrates the potential efficacy of a well-implemented CLUV law, even though it only applies to child fatalities rather than a broad range of CLUV situations.²²⁶ The judicial analysis of the Kentucky law at issue in *Shouse* suggests that legislators realized traditional avenues for prosecuting child deaths are often overly punitive, especially toward parents grieving the unintentional deaths of their children. As interpreted by the Kentucky Supreme Court, the state CLUV law provides a mechanism to impose criminal liability for caregivers' recklessness while also applying less severe punishment than would be applicable for other types of unintentional homicides resulting from grossly reckless conduct.²²⁷ This was done perhaps out of a recognition that caregivers, especially those who are parents, likely experience intense guilt and continuous grief when children die as a result of their own behavior.²²⁸

By contrast to the way the CLUV homicide law in Kentucky operates in the wake of the *Shouse* decision, it appears that the CLUV provisions in the laws of some other states could be amended for clarity. The results also suggest that improvements are needed with regard to the way such cases are handled. Two notable findings about final case outcomes on appeal support these conclusions.

First, there were statistically significant differences in the prevailing parties across the types of issues being considered in each case. Perhaps due to the sympathy for child victims and moral outrage for caregivers whose conduct caused injuries or death to

²²⁵ See *supra* notes 34–46 and accompanying text.

²²⁶ See *Shouse v. Commonwealth*, 481 S.W.3d 480, 489 (Ky. 2015).

²²⁷ *Id.* at 484.

²²⁸ See Ashley Fantz, *After Leaving a Child in a Car, 'That Pain . . . Never Goes Away,'* CNN (Jan. 6, 2015, 8:06 PM), <http://www.cnn.com/2014/07/03/us/hot-car-deaths/index.html> [<http://perma.cc/88GH-MR5U>].

those victims,²²⁹ courts in the research sample unanimously affirmed lower-court sentences, including those in which sentencing judges (1) opted against diversion programs for which defendants were eligible,²³⁰ (2) imposed incarceration terms rather than probation when the latter was available,²³¹ and (3) imposed longer terms of incarceration than those in presumptive sentencing ranges.²³² Additionally, judges denied requests in all cases where defendants sought to seal or expunge CLUV-related convictions.²³³ However, the fact that defendants were successful in twice as many cases as prosecutors when raising issues of statutory construction supports the idea of rewriting some states' CLUV laws with more precision. Such CLUV laws can be made more precise by either clarifying the meaning of mens rea²³⁴ or better delineating how CLUV laws work in conjunction with other criminal laws—without violating double jeopardy and associated principles.²³⁵

Second, the success rate for appeals on the sufficiency of the evidence claims suggests that the processing of CLUV cases may need improvement. Even though the majority of cases in which the appellant raised a sufficiency of the evidence claim ultimately resulted in an outcome favoring the prosecution, the 32.6% reversal rate for these claims in the research sample is *quadruple* the national reversal rate of 8.1% for all other crimes.²³⁶ This finding

²²⁹ See, e.g., Tom Geoghegan, *Hot Car Deaths: The Children Left Behind*, BBC NEWS (July 22, 2014), <http://www.bbc.com/news/magazine-28214266> [<http://perma.cc/8WV6-QKTW>] (reporting that “[t]he response to these kinds of cases is commonly vitriolic” and quoting a father whose actions in a CLUV incident caused his seventeen-month-old child’s death as saying that people “want[ed] to crucify [him] for what [he] did and that [he] was one of those people before it happened to [him]”); see also Gouveia, *supra* note 7; Washabaugh, *supra* note 7, at 201. Such emotions might also explain why the age of the children left unattended in vehicles was significantly related to case outcome. Very young, helpless children are particularly sympathetic victims. CLUV incidents involving them, therefore, might impact triers-of-fact during verdict deliberations, as well as appellate judges when reviewing both the sufficiency of the evidence and the propriety of sentences.

²³⁰ E.g., *State v. Mendez-Palmas*, No. A-5967-12T4, 2014 WL 5285706, at *3 (N.J. Super. Ct. App. Div. Oct. 16, 2014).

²³¹ E.g., *Commonwealth v. Shedden*, No. 533 MDA 2013, 2013 WL 11250371, at *2–3 (Pa. Super. Ct. Nov. 6, 2013); *State v. Hart*, No. M2012–00967–CCA–R3–CD, 2013 WL 1324328, at *6–7 (Tenn. Crim. App. Apr. 3, 2013); *State v. Long*, No. W2000–02773–CCA–R3–CD, 2001 WL 792624, at *5–6 (Tenn. Crim. App. July 13, 2001).

²³² E.g., *State v. Marques*, No. 1 CA–CR 17–0657 PRPC, 2018 WL 1955453, at *1–2 (Ariz. Ct. App. Apr. 26, 2018).

²³³ E.g., *Commonwealth v. Park*, No. 671 EDA 2015, 2015 WL 6664841, at *4–5 (Pa. Super. Ct. Oct. 30, 2015); *People v. Nicholas*, No. 38046, 2008 WL 2369755, at *6–7 (N.Y. City Ct. June 9, 2008); *People v. Tyre*, No. 39230, 2008 WL 2369753, at *5 (N.Y. City Ct. June 9, 2008).

²³⁴ See, e.g., *People v. Maynor*, 683 N.W.2d 565, 567–69 (Mich. 2004); *People v. Haveman*, 938 N.W.2d 773, 782 (Mich. Ct. App. 2019).

²³⁵ See, e.g., *Fernandez v. State*, 269 S.W.3d 63, 68 (Tex. App. 2008); *State v. Ducker*, No. 01C01–9704–CC–00143, 1999 WL 160981, at *18–19 (Tenn. Crim. App. Mar. 25, 1999), *aff’d*, 27 S.W.3d 889 (Tenn. 2000).

²³⁶ See WATERS ET AL., *supra* note 105, at 6 fig.3.

reinforces the notion that CLUV cases can be complex, especially when caregivers clearly did not intend or desire any harm to their children. But it also suggests that prosecutors may move forward with cases where the facts do not necessarily support the charges. Whether due to outrage over unnecessary deaths of children, moral condemnation about caregivers' use of drugs or alcohol or engagement in criminal activities, the desire to use CLUV cases as examples for general deterrence purposes, or a combination of these reasons and, perhaps, other reasons not mentioned, the high reversal rate of CLUV-related convictions on appeal suggests either an overcharging or undervaluation of case facts.²³⁷

B. Alternative Social Controls

Volumes of research strongly indicate that informal social controls are often more effective mechanisms for changing behavior than are formal social controls.²³⁸ Indeed, “[e]mpirical evidence on the deterrent effects of punishment remains speculative and inconclusive, and the ability of formal punishment *alone* to deter crime appears to be quite limited.”²³⁹ By contrast:

informal social controls have proven to be effective in curtailing juvenile delinquency; reducing illicit drug cultivation, distribution, and use; reducing alcohol abuse; reducing domestic violence; reducing the incidence of driving under the influence; increasing worker productivity; and even helping to reduce recidivism among sex offenders.²⁴⁰

Given that most CLUV-related injuries or deaths occur accidentally, there is a strong argument that formal social controls cannot deter the underlying behaviors—especially when caregivers forget children in vehicles. But informal social controls can play an important role in raising awareness about the risks of knowingly leaving children unattended in vehicles. Additionally, other styles of social control and technology hold promise for raising awareness to reduce the incidence of forgetting children in vehicles.

²³⁷ See, e.g., *State v. Taylor*, 491 P.3d 737, 745 (N.M. 2021).

²³⁸ See, e.g., JOHN BRAITHWAITE, CRIME, SHAME AND REINTEGRATION 12, 69–70 (1989); John H. Laub & Robert J. Sampson, *Understanding Desistance from Crime*, in 28 CRIME AND JUSTICE: A REVIEW OF RESEARCH 1 (Michael Tonry ed., 2001); Ruth Xiaoru Liu, *The Moderating Effects of Internal and Perceived External Sanction Threats on the Relationship Between Deviant Peer Associations and Criminal Offending*, 4 W. CRIMINOLOGY REV. 191, 192 (2003).

²³⁹ Jeffery Fagan & Tracey L. Meares, *Punishment, Deterrence and Social Control: The Paradox of Punishment in Minority Communities*, 6 OHIO ST. J. CRIM. L. 173, 181–82 (2008).

²⁴⁰ Henry F. Fradella & Marcus A. Galeste, *Sexting: The Misguided Penal Social Control of Teenage Sexual Behavior in the Digital Age*, 47 CRIM. L. BULL. 438 (2011) (citations omitted).

1. Public Service Campaigns

In a recent study of parental attitudes concerning pediatric vehicular heatstroke, nearly one out of four parents reported having left their children unattended in vehicles, many of whom were unaware of the associated dangers.²⁴¹ This finding suggests that we need more media and other public service campaigns to teach people about the risks of CLUV so that caregivers might better understand those risks—even for brief periods of time or on days when they perceive the weather to be mild.

Such educational ventures could take several forms. Law enforcement agencies and schools could advertise about CLUV dangers.²⁴² Mass media—including television, radio, magazines, billboards, and social media platforms—could warn about the dangers of CLUV in public service announcements (like the ones created by Kids and Car Safety and the National Highway Traffic Safety Administration’s “Where’s Baby? Look Before You Lock” campaign)²⁴³ in much of the same ways they have done for decades to raise awareness about the dangers of driving while impaired.²⁴⁴ Similarly, driver education programs could include modules on CLUV, just as they do for driving while impaired.²⁴⁵ Such campaigns should be consistent with Williams and

²⁴¹ See Fatimah S. Alowirdi, Shaikhah A. Al-harbi, Omer Abid, Omar S. Aldibasi & Jamil F. Syed, *Assessing Parental Awareness and Attitudes Toward Leaving Children Unattended Inside Locked Cars and the Risk of Vehicular Heat Strokes*, 7 INT’L J. PEDIATRICS & ADOLESCENT MED. 93, 95 (2020).

²⁴² Consider, for example, the types of infographics that fire and police departments created and distributed after California enacted Kaitlyn’s Law. See, e.g., *Kaitlyn’s Law*, ORANGE COUNTY FIRE AUTH., <http://legacy.cityofirvine.org/civica/inc/displayblobpdf2.asp?BlobID=10266> [<http://perma.cc/77U4-2LLW>] (last visited Aug. 5, 2022); *Kaitlyn’s Law: Never Leave a Child Alone in a Car, Not Even for a Minute*, RIVERSIDE POLICE DEP’T, <http://riversideca.gov/rpd/sites/riversideca.gov.rpd/files/images/KL-Infographic.png> [<http://perma.cc/R35J-LWRR>] (last visited Aug. 5, 2022).

²⁴³ *NHTSA Reminds Parents to “Look Before You Lock,”* NAT’L HIGHWAY TRAFFIC SAFETY ADMIN. (Apr. 27, 2022), <http://www.nhtsa.gov/press-releases/nhtsa-reminds-parents-look-before-you-lock> [<http://perma.cc/99X3-BQKY>]; *Public Service Announcements (PSAs)*, KIDS & CAR SAFETY, <http://www.kidsandcars.org/media/public-service-announcements-psas/> [<http://perma.cc/VP6W-VKGR>] (last visited Aug. 5, 2022).

²⁴⁴ Numerous studies report that such campaigns reduce alcohol-impaired driving. E.g., John P. Murry, Jr., Antonie Stam & John L. Lastovicka, *Evaluating an Anti-Drinking and Driving Advertising Campaign with a Sample Survey and Time Series Intervention Analysis*, 88 J. AM. STAT. ASS’N 50, 50, 55–56 (1993); Kimberly P. Whittam, William O. Dwyer, Patricia W. Simpson & Frank C. Leeming, *Effectiveness of a Media Campaign to Reduce Traffic Crashes Involving Young Drivers*, 36 J. APPLIED SOC. PSYCH. 614, 615–16, 625 (2006). Also, at least one study found that increased volumes of drinking and driving public service announcements were associated with statistically significant decreases in alcohol-related traffic fatalities. See Jeff Niederdeppe, Rosemary Avery & Emily N. Miller, *Alcohol-Control Public Service Announcements (PSAs) and Drunk-Driving Fatal Accidents in the United States, 1996–2010*, 99 PREVENTIVE MED. 320, 320–24 (2017).

²⁴⁵ E.g., *What Is Kaitlyn’s Law?*, DRIVERS EDUC. USA, <http://www.driverseducationusa.com/resources/kaitlyns-law/> [<http://perma.cc/FQ6C-B9AG>] (last visited Aug. 5, 2022).

Grundstein's recommendations to target common misperceptions and reduce caretakers' cognitive dissonance.²⁴⁶

2. Technology

Technology can help prevent CLUV incidents.²⁴⁷ Indeed, some car manufacturers have already integrated technologies that use sensors to detect children (or pets, for that matter) in vehicles and then alert drivers to their presence.²⁴⁸ Some of these devices are quite simple, while others are high-tech:

Vayyar's 3D imaging sensor can detect movements throughout the car after the engine is off. If there is someone detected, the system will alert the registered driver via text message or phone call, sound the car alarm or, if the car is electric, activate the air conditioner. Other technologies can detect carbon dioxide, weight, vitals, temperature, and more.²⁴⁹

Technology that alerts drivers about potential CLUV incidents is one of the few solutions that the federal government could mandate. The Hot Cars Act seeks to do just that by requiring all new vehicles to include technology that would alert a driver to a passenger in the backseat of a vehicle.²⁵⁰ But even if enacted, it would take years to make a notable difference due to the fact that older cars would need to be phased out of use and be replaced by newer vehicles equipped with such technology. Moreover, such technology would only address unintentional CLUV. It would not impact the incidence of caregivers knowingly leaving children unattended in vehicles. And, of course, technology failures occur all the time, rendering reliance on technological solutions less than ideal. Collectively, these shortcomings underscore the importance of the educational and public service efforts previously summarized.²⁵¹

²⁴⁶ See Castle A. Williams & Andrew J. Grundstein, *Children Forgotten in Hot Cars: A Mental Models Approach for Improving Public Health Messaging*, 24 INJ. PREVENTION 1, 7–8 (2017).

²⁴⁷ See, e.g., Hairulnizam Mahdin, Halim Abdul Omar, Salwani Siti Yaacob, Shahreen & Mohd Farhan Fudzee, *Minimizing Heatstroke Incidents for Young Children Left Inside Vehicle*, 160 IOP CONF. SERIES: MATERIALS SCI. & ENG'G 1, 2–3, 5 (2016); see also Alina Bradford, *Devices to Prevent Leaving Kids in the Car*, SAFEWISE (July 11, 2022), <http://www.safewise.com/car-seat-alarm/> [<http://perma.cc/9MEH-H4MH>]; Emilee Speck, *7 Apps and Smart Technology Designed to Prevent Heatstroke Deaths in Children*, FOX WEATHER (June 16, 2022), <http://www.foxweather.com/learn/7-apps-and-smart-technology-designed-to-prevent-children-hot-car-deaths> [<http://perma.cc/P9AH-SLD7>].

²⁴⁸ See Steven Vargas, *The Federal Hot Cars Act Aims to Prevent Deaths in Sweltering Vehicles. Can Technology Help Save Lives?*, USA TODAY (June 2, 2021, 9:43 PM), <http://www.usatoday.com/story/news/nation/2021/06/02/hot-cars-act-aims-tackle-one-america-most-tragic-problems/7423414002/> [<http://perma.cc/KT7Z-CY6J>].

²⁴⁹ *Id.*

²⁵⁰ See *id.*; see also Hot Cars Act of 2021, H.R. 3164, 117th Cong. (2021).

²⁵¹ We note that one or two automakers have implemented technology that may reduce the likelihood of harm associated with leaving a child (or pet) in a vehicle. For

3. Other Styles of Formal Social Control

There will undoubtedly be people who feel that penal social controls are necessary to combat the problems associated with CLUV. We certainly agree that this solution would be appropriate in certain cases, such as when children sustain injuries or die. Indeed, we even support penal social controls for repeat offenders in CLUV incidents in which children were not harmed at all. But for first-time offenders whose children are not injured, we believe the compensatory style of social control holds promise in curbing repeated behavior through a combination of civil sanctions and educational interventions. Specifically, states could enact laws for first-time offenders causing no harm to children that are modeled after California's Kaitlyn's Law, which is contained in the California Vehicle Code—not the penal code—and is sanctioned as a civil infraction.²⁵² Notably, that statute provides that caretakers found in violation of the law may be required to attend an educational program addressing the risks of leaving a child unattended in a vehicle.²⁵³

Critics have argued that laws like California's Kaitlyn's Law amount to little more than legal showmanship because they typically result in the imposition of minor fines or even only verbal warnings.²⁵⁴ One possible remedy to address such concerns would be to mirror Michigan's approach, which increases the sanction for subsequent violations.²⁵⁵ We caution, however, against two features of Michigan's law.

example, Tesla implemented a feature known as "Dog Mode" which keeps the cabin of the vehicle climate-controlled while displaying the current temperature inside the car along with a message on the primary on-board monitor saying that the owner will be back soon. See Brian Wang, *Tesla Adds Sentry and Dog Modes*, NEXT BIG FUTURE (Feb. 20, 2019), <http://www.nextbigfuture.com/2019/02/tesla-adds-sentry-and-dog-modes.html> [<http://perma.cc/V65G-L5WL>]. Ford has filed patents for similar technology, but has yet to implement it. See Justin Banner, *Ford Barks Up Tesla's Tree, Considering Dog Mode-Style Pet Feature*, MOTOR TREND (Feb. 17, 2022), <http://www.motortrend.com/news/ford-patent-dog-pet-mode-feature/> [<http://perma.cc/9R67-662B>]. Neither of these technologies were designed to protect humans, although they might be adapted for such use. We see this as potentially problematic because it signals that leaving a child unattended in a vehicle is acceptable under certain circumstances when, in fact, it is never safe to do so.

²⁵² CAL. VEH. CODE § 15620 (West 2022).

²⁵³ *Id.*

²⁵⁴ See Samantha B. Kats, *The Sun Can Quickly Turn a Car into a Death Trap; Is a Child's Life Worth the Gamble: A Deeper Look into the Unattended Child in Vehicle Act & Potential Liability*, 16 HOLY CROSS J.L. & PUB. POL'Y 9, 13–17, 27 (2012).

²⁵⁵ Michigan's approach is as follows:

- (2) A person who violates this section is guilty of a crime as follows:
 - (a) Except as otherwise provided in subdivisions (b) to (d), the person is guilty of a misdemeanor punishable by imprisonment for not more than 93 days or a fine of not more than \$500.00, or both.
 - (b) If the violation results in physical harm other than serious physical harm to the child, the person is guilty of a misdemeanor punishable by

First, as previously discussed, Michigan's law is less than clear about the mens rea required and the attendant circumstance element regarding what might constitute an "unreasonable risk of harm or injury."²⁵⁶ For that matter, California's Kaitlyn's Law also uses indeterminate terminology about risk.²⁵⁷ The results of our qualitative analysis lead us to believe that more clarity is needed than such generalizations provide. To avoid uncertain questions of fact about those circumstances that pose a risk to a child left unattended in a vehicle, a certain length of time is preferable, such as the lengths of time used in Florida and Texas.²⁵⁸ Given that serious injuries can occur after just five minutes in a hot vehicle, we recommend that a specific length of time serve as the trigger for liability.²⁵⁹

Second, Michigan classifies a first offense of CLUV as a misdemeanor punishable by potential jail time and a fine.²⁶⁰ We think that would be appropriate for a second offense, with subsequent offenses increasing in the lengths of potential incarceration and in the amounts of fines. But given the widespread ignorance about the dangers of CLUV even for short periods of time or on mild days,²⁶¹ a first offense could be dealt with as a civil infraction, rather than a misdemeanor, just as California law provides.²⁶² Moreover, this approach has the added benefit of allowing for the imposition of strict liability for a first offense, thereby obviating any disputes about mens rea

imprisonment for not more than 1 year or a fine of not more than \$1,000.00, or both.

(c) If the violation results in serious physical harm to the child, the person is guilty of a felony punishable by imprisonment for not more than 10 years or a fine of not more than \$5,000.00, or both.

(d) If the violation results in the death of the child, the person is guilty of a felony punishable by imprisonment for not more than 15 years or a fine of not more than \$10,000.00, or both.

MICH. COMP. LAWS ANN. § 750.135a(2) (West 2022).

²⁵⁶ See *id.* § 750.135a(1); *supra* notes 182–190 and accompanying text.

²⁵⁷ CAL. VEH. CODE § 15620 (West 2022) (prohibiting CLUV “[w]here there are conditions that present a significant risk to the child’s health or safety”).

²⁵⁸ FLA. STAT. ANN. § 316.6135(1)(a) (West 2022) (fifteen minutes); TEX. PENAL CODE ANN. § 22.10(a) (West 2021) (five minutes).

²⁵⁹ See *Impact of Dangerous Microclimate Conditions*, *supra* note 33, at 105.

²⁶⁰ MICH. COMP. LAWS ANN. § 750.135a(2) (West 2022).

²⁶¹ See *supra* notes 23–33 and accompanying text.

²⁶² California law provides the following:

A violation of [this law] is an infraction punishable by a fine of . . . one hundred dollars (\$100), except that the court may reduce or waive the fine if the defendant establishes to the satisfaction of the court that he or she is economically disadvantaged and the court, instead, refers the defendant to a community education program that includes education on the dangers of leaving young children unattended in motor vehicles, and provides certification of completion of that program.

CAL. VEH. CODE § 15620(b) (West 2022).

while not engendering any concerns about overcriminalization in the absence of criminal intent.

C. A Suggested Model Statute

Based on our reading of all of the cases in the research sample, we offer the following model statute that addresses the full range of CLUV outcomes—from minor incidents in which no child is hurt all the way through unintentional deaths caused by knowingly leaving a child unattended in a vehicle. Our proposal grades the offense and associated penalties for repeat offenders of minor incidents in which no child is harmed. When a child is harmed as a result of knowing or reckless conduct, our proposed statute also grades the offense and associated penalties based on the degree of harm the child encounters. Finally, to avoid potential double jeopardy issues, the model statute makes it clear that intentional harms may be prosecuted as other offenses, but unintentional harms should not.

(1) A parent, legal guardian, or other person responsible for a child who is eight (8) years of age or younger may not leave that child inside a motor vehicle unattended or unsupervised by a person who is fourteen (14) years of age or older and not legally incapacitated, under any of the following circumstances:

- (a) For a period of five (5) minutes or longer;
- (b) For any period of time if the vehicle's engine is running or the vehicle's keys are in the vehicle, or both; or
- (c) Where there are any conditions that present a significant risk to the child's health or safety as assessed from the viewpoint of the ordinary, reasonable, prudent person.

(2) Provided that no physical harm has come to the child as a result of being left in the vehicle under any of the circumstances specified in paragraph (1), any person who violates the provisions of paragraph (1) for the first time is guilty of a noncriminal, strict liability infraction. All such first-time violators shall be punished by a fine of \$250.00, except that the court may reduce or waive the fine if the defendant establishes to the satisfaction of the court that he or she is economically disadvantaged. In addition, regardless of whether or not a fine is imposed, all first-time violators shall be mandated to participate in an education program on the dangers of leaving young children unattended in motor vehicles.

(3) Except as provided in paragraph (2), any person who, acting with purpose, knowledge, recklessness, or criminal negligence, violates the provisions of paragraph (1) without causing any physical harm to a child is guilty of a crime as follows:

- (a) A second violation of the provisions of paragraph (1) constitutes a misdemeanor punishable by a term of probation of up to one (1) year and/or a fine of not more than \$500.00, or both. Additionally,

the court may, at its discretion, suspended the driver's license of any defendant convicted under this section for up to ninety (90) days.

(b) A third violation of the provisions of paragraph (1) constitutes a misdemeanor punishable by a term of incarceration of up to ninety (90) days in jail, a fine of not more than \$1,000.00, or both. In addition, the court shall order the suspension of the driver's license of any defendant convicted under this section for a period of one hundred eighty (180) days.

(4) Except as provided in paragraphs (2) or (3), any person who, acting with knowledge or recklessness, violates the provisions of paragraph (1) is guilty of a crime as follows:

(a) Except as otherwise provided in subdivisions (b) to (d), the person is guilty of a misdemeanor punishable by incarceration of up to one hundred eighty (180) days in jail, a fine of not more than \$2,500.00, or both. In addition, the court shall order the suspension of the driver's license of any defendant convicted under this section for a period of one (1) year.

(b) If the violation results in physical harm other than serious physical harm to the child, the person is guilty of a misdemeanor punishable by incarceration of up to one (1) year in jail, a fine of not more than \$3,500.00, or both. In addition, the court shall order the suspension of the driver's license of any defendant charged under this section for a period of one (1) year.

(c) If the violation results in serious, albeit unintentional, physical harm to the child that causes permanent disability or permanent disfigurement, the person is guilty of a felony punishable by imprisonment for not more than two (2) years, a fine of not more than \$5,000.00, or both.

(d) If the violation results in the unintentional death of the child, the person is guilty of a felony punishable by imprisonment for not more than five (5) years, a fine of not more than \$10,000.00, or both.

(5) Although unintentional harms to a child caused by violation of the provisions of paragraph (1) are to be prosecuted under this subdivision of the criminal code, nothing in this subdivision precludes prosecution for any applicable criminal charges stemming from acts or omissions specifically intended to cause physical injury to or the death of a child left in a vehicle in violation of the provisions of paragraph (1).

CONCLUSION

Responding to incidents in which a child is left unattended in a vehicle poses difficult challenges for the criminal legal system, especially given the prevalence of children accidentally being forgotten in vehicles. However, even when caregivers knowingly make the decision to leave children in vehicles, they typically underestimate the effects that solar radiation can have on the climate inside a vehicle, as well as the length of time

needed for children to become distressed. To effectively reduce CLUV-related injuries and deaths, we should employ a range of strategies, including: (1) CLUV-specific civil violations for first-time offenders whose actions cause no harm; (2) CLUV-specific criminal penalties for repeat offenders and those whose actions unintentionally harm children; (3) educational and public service campaigns to raise awareness of the risks associated with CLUV, even for a short period of time on temperate days; and (4) technological mitigations to prevent drivers from accidentally leaving children in vehicles.

