Where was our baby boy?
October 17, 2000

U.S. Transportation Secretary Slater announces standard that requires all cars with trunks to have an internal trunk release.

Requirement effective September 1, 2001
Past
You could only enter a car trunk with a key

Present
Currently there are many ways to get into a car trunk:
* trunk key
* lever inside passenger compartment
* fold down back seats
* remote key FOBS

SUCCESS
We do not know of ONE fatality in a vehicle that has a trunk release installed inside the trunk compartment.

Teach children not to play in vehicles. Keep keys out of a child’s reach and keep doors and trunks locked—they could lock themselves in. Interior and trunk temperatures rise very quickly on hot days—even a short exposure to high temperatures can cause heat-related injuries, including brain damage and death. Familiarize yourself with the interior trunk release.*
TIME LINE
1966 NHTSA collected only ‘traffic’ data

1966 NHTSA

1995 Fennell family trunk entrapment

1996 TRUNC founded & began collecting nontraffic data

Before Google

1999 Federal Regulation trunk releases Nontraffic Incidents shown to be a significant issue

1999

1998 KidsAndCars.org began collecting nontraffic data

2005 SAFETEA-LU NHSTA req’d to collect nontraffic data

2008 Passed Cameron Gulbransen Kids Transportation Safety Act

2009 1st NiTS study issued
KidsAndCars.org is a national nonprofit child safety organization dedicated to preventing injuries and death to children in or around motor vehicles.
What we do......

• Data Collection
• Education
• Policy (laws & regulation)
• Product redesign (engineering)
• Survivor Advocacy
DATA COLLECTION

No data...........no problem
Methodology for gathering data

1. Registration of key word preferences on Google and News Media sites
2. Online searches of newspapers, broadcast news, legal documents, the Internet, etc.
3. *Media contacts us with information about an incident*
4. Informal nationwide network of professional & personal contacts who look for incident information for us
5. Parents and relatives of victims contact us
6. Child Death Review Teams (CDRTs)
7. Public Information Officers (PIO’s)
8. Clipping Service (Burrell’s, etc.) (previously)
9. Lexis-Nexis™
Collaboration

- US Postal Service
- Consumer Reports-articles and testing
- Suffolk and Nassau counties ordinances
- Safeway milk cartons and grocery bags
- State Farm
- Liberty Mutual
- Farmers Insurance
- Centers for Disease Control and Prevention (CDC)
- California Pediatric Trauma Centers backover study
- Safe Ride News
- Pop A Lock
- Britax-poster based on new CA law
- Child Death Review Teams
- American Academy of Pediatrics
- Emergency Nurses Association
- Advocates for Highway and Auto Safety
- Public Citizen
- Center for Auto Safety
- Safely on the Move-CA Child Care curriculum
- Media-many times calls me first
Data collection for the past 4 decades

According to the Fatal Analysis Reporting System (FARS) ~30-40,000 people die every year on our roads and highways

1. Involves a crash
2. Takes place on a public road or highway
3. Die within 30-days of the incident
Pushing to Close Gaps in Compiling Vehicular Deaths
Injuries and Deaths Among Children Left Unattended In or Around Motor Vehicles

United States, July 2000 – June 2001
MMWR July 5, 2002

9162 every year......176 children every week
Just for kids.....

262 fatalities

115,000 injuries

Data continues to be under reported

e.g., NiTS reports an average of 27 heat-stroke deaths per year; KidsAndCars.org data confirms an average of 40 heat-stroke deaths per year during the same time period
Nontraffic Incidents would fall within the top 5 causes of injury death for young children.
Heat Related Incidents (1995-2010)

WHO
Heat-related incidents most frequently occur with children less than three years old and in a parent’s vehicle.

<table>
<thead>
<tr>
<th>Victim Age</th>
<th>Fatal</th>
<th>Non-Fatal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 1 Year old</td>
<td>169 victims</td>
<td>Less than 1 Year old: 430 victims</td>
</tr>
<tr>
<td>1-2 Years old</td>
<td>124 victims</td>
<td>1-2 Years old: 245 victims</td>
</tr>
<tr>
<td>2-3 Years old</td>
<td>119 victims</td>
<td>2-3 Years old: 175 victims</td>
</tr>
<tr>
<td>Owner of vehicle</td>
<td>Mother of victim: 181</td>
<td>Mother of victim: 602</td>
</tr>
<tr>
<td></td>
<td>Father of victim: 103</td>
<td>Father of victim: 186</td>
</tr>
<tr>
<td></td>
<td>Both parents of victim: 76</td>
<td>Both parents of victim: 85</td>
</tr>
</tbody>
</table>

Between 1995 and 2010, KidsAndCars.org recorded over 1700 heat related incidents involving vehicles and children of ages 15 or under. Information includes both fatal and non-fatal.
Heat Related Incidents (1995-2010)

WHAT
The majority of hot weather incidents occur when outside temperatures are between 85 and 105°.

<table>
<thead>
<tr>
<th>Outside temperature the day of the incident:</th>
<th>Fatal</th>
<th>Non-Fatal</th>
</tr>
</thead>
<tbody>
<tr>
<td>90-99°</td>
<td>~186 incidents</td>
<td>80-89°: ~132 incidents</td>
</tr>
<tr>
<td>80-89°</td>
<td>~115 incidents</td>
<td>90-99°: ~111 incidents</td>
</tr>
<tr>
<td>100-116°</td>
<td>~49 incidents</td>
<td>100-116°: ~53 incidents</td>
</tr>
</tbody>
</table>

Between 1995 and 2010, KidsAndCars.org recorded over 1700 heat related incidents involving vehicles and children of ages 15 or under. Information includes both fatal and non-fatal.
# Heat Related Incidents (1995-2010)

**WHERE**

Most incidents occur in a regular car in a parking lot (such as a workplace).

<table>
<thead>
<tr>
<th>Type of vehicle</th>
<th>Fatal</th>
<th>Non-Fatal</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 or 4 door Car</td>
<td>260 incidents</td>
<td>703 incidents</td>
</tr>
<tr>
<td>Minivan</td>
<td>79 incidents</td>
<td>156 incidents</td>
</tr>
<tr>
<td>Sport Utility Vehicle</td>
<td>72 incidents</td>
<td>99 incidents</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Where the vehicle typically is parked</th>
<th>Fatal</th>
<th>Non-Fatal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parking Lot (including apartment or business)</td>
<td>219 incidents</td>
<td>Parking Lot (including apartment or business): 993 incidents</td>
</tr>
<tr>
<td>Driveway of home</td>
<td>210 incidents</td>
<td>Driveway of home: 53 incidents</td>
</tr>
<tr>
<td>Other driveway</td>
<td>40 incidents</td>
<td>Street: 52 incidents</td>
</tr>
</tbody>
</table>

Between 1995 and 2010, KidsAndCars.org recorded over 1700 heat related incidents involving vehicles and children of ages 15 or under. Information includes both fatal and non-fatal.
# Heat Related Incidents (1995-2010)

## WHY/HOW

The majority of children are left in the vehicle by an adult, and suffer injury or death in minutes to hours.

<table>
<thead>
<tr>
<th></th>
<th>Fatal</th>
<th>Non-Fatal</th>
</tr>
</thead>
</table>
| How the child got in the vehicle | Left there by responsible party: 366  
Got in on their own: 130 | Left there by responsible party: 1159  
Got in on their own: 13 |
| If child was left by responsible party, was it intentional? | No: 225 incidents  
Unknown: 90 incidents  
Yes: 51 incidents | Yes: 824 incidents  
No: 203 incidents  
Unknown: 132 incidents |
| Amount of time before child was found | 1-2 Hours: 70 incidents  
3-4 Hours: 69 incidents  
2-3 Hours: 57 incidents | Less than 1 hour: 578 incidents  
1-2 Hours: 131 incidents  
2-3 Hours: 48 incidents |

Between 1995 and 2010, KidsAndCars.org recorded over 1700 heat related incidents involving vehicles and children of ages 15 or under. Information includes both fatal and non-fatal.
Heat Related Incidents (1995-2010) - Fatal
Data Source: KidsAndCars.org

<table>
<thead>
<tr>
<th>Month</th>
<th>Day of Week</th>
<th>Veh. Owner</th>
<th>Veh Type</th>
<th>General Location</th>
<th>How alone</th>
<th>Timeframe</th>
<th>How Long</th>
<th>Out Temp</th>
<th>Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>July</td>
<td>129 Thursday</td>
<td>97 Mother</td>
<td>181 Car</td>
<td>260 Parking Lot</td>
<td>219 Left there</td>
<td>366 Afternoon</td>
<td>171 1-2 Hrs</td>
<td>70 90-99</td>
<td>186 &lt;1 Yr</td>
</tr>
<tr>
<td>August</td>
<td>118 Wednesday</td>
<td>77 Father</td>
<td>103 Minivan</td>
<td>79 Driveway - Home</td>
<td>210 Got in on own</td>
<td>108 Morning</td>
<td>114 3-4 Hrs</td>
<td>69 80-89</td>
<td>115 1-2 Yrs</td>
</tr>
</tbody>
</table>
Fatal Distraction

Forgetting a child in the back seat of a hot, parked car is a horrifying, inexcusable mistake. But is it a crime?
“One of the Saddest Databases in America”
U.S. CHILD FATALITIES BY TYPE (2006 - 2010)

Nontraffic Fatalities Involving Children < 15 Years Old

- Backovers: 34%
- Frontovers: 30%
- Heat stroke: 16%
- Vehicle Set In Motion: 5%
- Underage Driver: 7%
- Fall from Vehicle: 4%
- Drowning: 2%
- Other: 4%

Data Source: KidsAndCars.org
During the 1990’s, there were many reports of child deaths caused by the front seat passenger airbag. At least 180 children have been killed by a deploying front seat passenger airbag from 1990-2010; while during those same years at least 584 children died in vehicles due to heat stroke. In the three-year period from 1990-1992, before airbags were required, there were only 14 known child vehicular heat stroke deaths. Now, most young children travel in the back seat because of front seat passenger air bags and because the back seat is much safer. In the past three years, (2008-2010) there have been at least 125 known child vehicular heat stroke fatalities…. a 892% increase from the early 1990’s.
To err is human; but to forgive is design.
Is it our society, our government or the auto industry saying...

it’s not okay to have a dead car battery; but it is okay to have a dead baby......
Technology could help to prevent heat-related tragedies
Require automakers to install seat belt sensors for all seating positions

- Driver knows everyone is buckled up
- Alerts driver when someone unbuckles
- 40-50% of children who die in crashes are not buckled

Once sensors are required in all seating positions,...

driver could possibly be alerted if someone was left inside the vehicle
Power Window Switches

RISKY DESIGN
- Horizontal rocker switches
- Toggle switches

SAFER
- Lever

SUCCESS!!!!!!
2009 Model Year
Other risks to children:

- Seat belt entanglement
- Carbon Monoxide poisoning
- Trunk entrapment
- Car theft when child left in vehicle
- Car towed when left in vehicle
- Fires in vehicles
- Abduction/Kidnapped
- Left vehicle
- Fall from vehicle
- Found guns in vehicles
- *Set vehicle into motion* (?)
## Top numbers per incident type

<table>
<thead>
<tr>
<th>Type</th>
<th>Incidents</th>
<th>Victims</th>
<th>Fatalities</th>
<th>Top State</th>
<th>Top Month</th>
<th>Top Day</th>
<th>Top Make</th>
<th>Top Loc</th>
</tr>
</thead>
<tbody>
<tr>
<td>WH</td>
<td>1711</td>
<td>2226</td>
<td>552</td>
<td>FL (233)</td>
<td>7 (433)</td>
<td>TU (271)</td>
<td>Ford (95)</td>
<td>PL (1212)</td>
</tr>
<tr>
<td>JL</td>
<td>1145</td>
<td>1640</td>
<td>3</td>
<td>CA (101)</td>
<td>3 (125)</td>
<td>MO (176)</td>
<td>Ford (39)</td>
<td>PL (796)</td>
</tr>
<tr>
<td>WC</td>
<td>329</td>
<td>432</td>
<td>4</td>
<td>NY (25)</td>
<td>12 (102)</td>
<td>FR (53)</td>
<td>Chevrolet (7)</td>
<td>PL (246)</td>
</tr>
<tr>
<td>PA</td>
<td>123</td>
<td>142</td>
<td>50</td>
<td>CA (12)</td>
<td>5 (20)</td>
<td>TH (24)</td>
<td>Ford (34)</td>
<td>PL (24)</td>
</tr>
<tr>
<td>OT</td>
<td>88</td>
<td>132</td>
<td>45</td>
<td>FL (14)</td>
<td>11 (5)</td>
<td>TU (17)</td>
<td>Chevrolet, Dodge (4)</td>
<td>PL (33)</td>
</tr>
<tr>
<td>FA</td>
<td>79</td>
<td>87</td>
<td>33</td>
<td>TX (9)</td>
<td>10,11 (13)</td>
<td>WE (19)</td>
<td>Ford (7)</td>
<td>ST (27)</td>
</tr>
<tr>
<td>FI</td>
<td>63</td>
<td>126</td>
<td>35</td>
<td>CA,MI,UT (5)</td>
<td>11 (9)</td>
<td>WE,TH (10)</td>
<td>Ford (6)</td>
<td>PL (23)</td>
</tr>
<tr>
<td>LV</td>
<td>56</td>
<td>68</td>
<td>5</td>
<td>CA (6)</td>
<td>2 (8)</td>
<td>MO (10)</td>
<td>Ford, Chevrolet (4)</td>
<td>PL (31)</td>
</tr>
<tr>
<td>CM</td>
<td>27</td>
<td>57</td>
<td>22</td>
<td>MD (4)</td>
<td>2 (8)</td>
<td>MO (9)</td>
<td>Ford, Dodge (2)</td>
<td>GR (9)</td>
</tr>
<tr>
<td>KA</td>
<td>17</td>
<td>25</td>
<td>0</td>
<td>CA (4)</td>
<td>8 (4)</td>
<td>TH (4)</td>
<td>Toyota (2)</td>
<td>PL (9)</td>
</tr>
<tr>
<td>SB</td>
<td>14</td>
<td>19</td>
<td>11</td>
<td>MI (3)</td>
<td>6,12 (3)</td>
<td>TU (5)</td>
<td>Honda (2)</td>
<td>PL,DWHM(4)</td>
</tr>
<tr>
<td>GI</td>
<td>8</td>
<td>10</td>
<td>0</td>
<td>CA (2)</td>
<td>10 (3)</td>
<td>SU,WE (2)</td>
<td>-</td>
<td>DW (4)</td>
</tr>
</tbody>
</table>
A virtual system

☑ Uses multiple systems from NHTSA and others
☑ Provides different types of data for more complete picture

Four major components

- Nontraffic crash database
- Noncrash injury database
- Noncrash fatality database
- Special Crash Investigations (SCI)
…..”she’s not your ordinary baggage”
Thank you!

KidsAndCars.org Facebook page: http://www.facebook.com/#!/pages/KidsAndCarsorg/128148590541866?ref=ts

Follow KidsAndCars.org on Twitter: http://twitter.com/#!/KidsAndCars

Sign up for KidsAndCars.org’s email Newsletter: http://www.KidsAndCars.org
Transportation bill contained provisions to:

- Collect non traffic data!
- Test and evaluate backover technologies!
- Regulate that power windows switches will have to be pulled up or out to activate window glass!