

CLIV Van & Bus Incidents

UN IWG CLIV-08 Workshop

Seoul, 1st – 3rd April, 2025

FATAL INCIDENTS - DAYCARE VANS OR BUSES



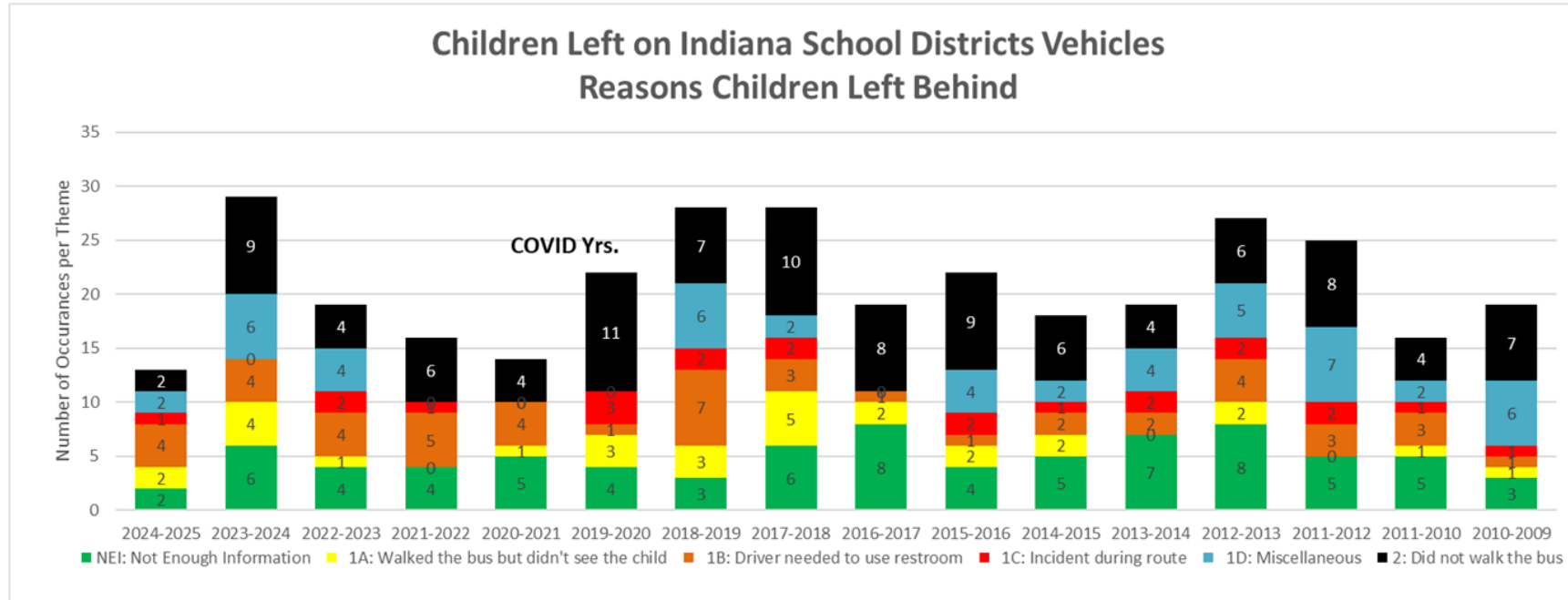
- USA: from 2010 to 2024 about 20 CLIV fatalities can be linked to daycare vans or buses. A few examples:
 - Sacramento CA: Sept. 2015 (Resulting in bus driver's loss of job and imprisonment, and lawsuit settlements \$23.5M) [Family whose autistic teen died in sweltering bus reaches \\$23.5-million settlement - Los Angeles Times](#)
 - Houston TX: July 2018 (bus with "push button") [Driver indicted exactly 1 year after 3-year-old boy died from being left on scorching hot bus: DA - ABC News](#)
 - Broward, FL, July 2019 (van with "push button"): [Day care worker shut off child safety alarm in hot van where boy, 2, was found dead: Report - ABC News; Florida ties Texas for most heatstroke deaths by kids in cars](#)
- Two documented US incidents involved a bus respectively van equipped with a "push button"
 - Houston 2018: driver walked around bus, opened rear door, and pushed button
 - Broward 2019: driver pushed the button before he asked children to leave the van
- Fatal incidents related to daycare or school transportation are also known from Australia, China, Japan, Korea, Thailand, United Arabian Emirates, etc.

STATE OF INDIANA – SCHOOL BUS CLIV REPORTING



- The US State of Indiana requires all 294 school districts report when a child is left on a school vehicle
- Indiana has therefore an extensive collection of data on CLIV incidents related to school buses, and on the root causes
- 334 incidents of children left on school buses from 2009 to December 2024
 - Average of 21 incidents/year (7% of districts have an incident per year)
- "Push button" in the back of the vehicle recommend since 2006 and required since 2015 on newly manufactured buses (Indiana Statute 575 IAC 1-9-15 [Section 575 IAC 1-9-15 - Child alert notification systems](#))
- Other US States with "push button" requirements:
 - California (Feb 2019): [Left In A School Bus To Die: How Tragedy Sparked A New Law - CBS Sacramento](#)
 - Florida (Jan 2022): [2021 Bill Summaries - The Florida Senate](#)
- There may be more States with reporting requirements and with "push button" requirements
 - Does NHTSA have more data available?

DATA FROM STATE OF INDIANA



- 2: Did not walk the bus
- 1D: Miscellaneous
- 1C: Incident during route
- 1B: Driver needed to use restroom
- 1A: Walked the bus but didn't see the child
- NEI: Not Enough Information

- Breakdown of the context when a driver has left a child on a school vehicle
 - ~1/3 occurrences when driver does not perform a vehicle walk through ⇒ "push-button" to address this situation
- But:
 - About 9%: Driver walked the bus but didn't see the child!

HOW CAN A DRIVER OVERLOOK A CHILD?



- A key factor that contributes to such situations is the “competition between the brain’s habit memory and its prospective memory system” with the habit memory prevailing.
 - Bus driver searches his/her bus after each run, day after day, in search of children left behind, they form habitual memory that no children are found on the bus (the "usual" situation)
 - Add a change of some sort or a distraction and the prospective memory (i.e., search the bus for children left behind) can fail
- The mind can even create a false memory that the task (e. g. searching the vehicle for children) is properly performed when in reality it was not.

(Analysis by Dr. David Diamond, Professor of Neuroscience, 15+ years research)

CONCLUSION



- The Indiana data shows that in a significant number of CLIV incidents, the bus driver simply didn't check the bus for children that may be still on board
- The "push button" could be a way to ensure that this check is done
- But there is evidence that CLIV still occurs, despite the driver having walked the bus (child not seen by driver)
- There are "human factors" that the "push button" cannot address (habit memory effect, circumvention)
- The "push button" as standalone solution appears to be an inadequate approach
- CLEPA proposal (doc ref CLIV-08_XYZ): Preferable approach – Category C "direct detection" systems
 - To avoid overreliance on the Cat C system: combine with A-3 (reminder to driver to check bus/van if he was on journey with children, can ignore message if bus was empty on journey) or A-1 (push-button) for large buses
 - A-1 not for vans, because of no direct access, respectively burdensome access towards the rear of the vehicle

Thank you!

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