

Meeting of the  
**Unintentional Death  
Prevention Committee**  
of the  
North Carolina Child  
Fatality Task Force

January 10, 2022

# Child Fatality Task Force



***Our Children, Our Future,  
Our RESPONSIBILITY***



## Roll Call Attendance & Approval of Minutes

Minutes from last meeting on 11-8-21 have been posted on the CFTF website, the minutes have been sent out and the link to the minutes is also on your agenda.

# Goals and format for today's meeting

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Brief summary of information already presented on topics being considered by this committee plus any additional information

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Goal for each item is to discuss whether the committee wants to make any recommendation to submit to the full CFTF and if so, whether it is legislative or administrative. All recommendations to be made must be finalized today; this is the last meeting of this committee until next fall.

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Recommendations made by this committee go to the full CFTF for consideration at their February 7 meeting. If approved by the full CFTF, recommendations go on the CFTF 2022 Action Agenda.

# Issues this committee is currently working on

- Firearm safety (repeated recommendation from State CFPT; carry-over; legislative)
- Tobacco & nicotine use prevention funding (carry-over & issue application seeking state funding)
- Child passenger safety issues studied by OP Task Force (carry-over; in 2021 was administrative)
- Rear seat restraints & strengthened education in drivers ed (carry-over; in 2021 was administrative)
- Ignition interlocks for all alcohol impaired offenders (carry-over; in 2021 was legislative)
- Change in law to allow pedestrian & bicycle infrastructure funding (new issue application seeking legislative recommendation)
- Requiring lifeguards at day camps that offer time in the water (new issue application seeking legislative recommendation)
- Teen driving/GDL (informational)

# Suggested criteria to consider when evaluating a strategy/topic area\*

## 1) IMPACT & EVIDENCE:

- What is the **magnitude of the problem** the *specific strategy* seeks to address?
- What is the **scope of impact** of this strategy on child death prevention, child well-being, and/or addressing deficiencies in systems that have a role in child safety and well-being?
- How strong is the **evidence** that this strategy will prevent child deaths, promote child well-being, and/or effectively address deficiencies in systems that have a role in child safety and well-being?
- Is the strategy likely to have a positive impact on **health disparities**?
- Are there any **potential negative consequences** from implementation of this strategy and if so what is the cost/benefit related to impact on child well-being?

## 2) FEASIBILITY & COSTS:

- What is the **degree of complexity** involved in implementing the strategy and how manageable is the complexity (e.g., resources, people, time, operational or technical changes necessary to implement)?
- If this strategy involves legislation, is this a time that it will likely have **receptivity at the General Assembly**?
- How likely are **relevant stakeholders** to be receptive to (or opposed to) this strategy?
- **How much cost** is involved in implementing the strategy and is such cost likely to present a significant challenge to implementation?
- **How do costs of this strategy compare to benefits**? Will upfront costs likely result in ultimate costs saved/averted?

## 3) FIT WITH CFTF STRUCTURE, MANDATE, AND RESOURCES

Can this strategy be appropriately evaluated and advanced by the CFTF given the current structure, mandate, and resources of the CFTF (e.g., what is the degree of meeting time, staff and volunteer time, type of expertise, and type of study needed for this issue and does it fit within CFTF mandate and capabilities)?

\*Criteria inspired by the CDC's Policy Analytical Framework

# Types of CFTF recommendations & considerations

Legislative	Administrative	No action
<b>What is it?</b> Recommending a new law, a change in a law, or state funding	<b>What is it?</b> An effort by the CFTF to continue working on an issue in a way that does not involve legislation.	<b>What is it?</b> A determination for the CFTF to take no action; issue would not be on 2022 Action Agenda
<b>Reasons to consider:</b> <ul style="list-style-type: none"><li>Legislative action is necessary to address the issue.</li></ul> <p style="text-align: center;">AND</p> <ul style="list-style-type: none"><li>The issue warrants CFTF recommendation for legislative action based on sufficient information known about: 1) impact and evidence; 2) feasibility and costs; and 3) fit with CFTF structure, mandate, and resources.</li></ul>	<b>Reasons to consider:</b> <ul style="list-style-type: none"><li>Not enough information on an issue to make a recommendation but it is important to continue to study it.</li></ul> <p style="text-align: center;">OR</p> <ul style="list-style-type: none"><li>The CFTF needs to involve experts or stakeholders to bring more information back to the committee to determine its importance or next steps.</li></ul> <p style="text-align: center;">OR</p> <ul style="list-style-type: none"><li>The CFTF can make progress on this issue through non-legislative efforts.</li></ul>	<b>Reasons to consider:</b> <ul style="list-style-type: none"><li>The issue does not warrant CFTF action <i><b>at this time</b></i> based on shortcomings with: 1) impact and evidence; 2) feasibility and costs; and/or 3) fit with CFTF structure, mandate, and resources.</li></ul> <p style="text-align: center;">OR</p> <ul style="list-style-type: none"><li>Sufficient progress has already been made</li></ul>

# Rear Seat Restraints

*(2021 administrative  
carry-over item)*

- **2016, 2017, 2018, 2019:** A recommendation to have primary enforcement of rear seat restraints for all ages was on the CFTF Action Agenda as a legislative recommendation; legislation was introduced in 2017 only and did not fully advance.
- In **2020 and 2021**, this issue was on the CFTF Action Agenda as an administrative item. The 2021 item is as follows:  
*Administrative support to continue efforts to gather information on the potential for future legislation that allows for primary enforcement of all unrestrained back seat passengers with the intent to bring this item back for consideration by the Unintentional Death Prevention Committee prior to the 2022 legislative session, and Governor's Highway Safety Program to work with the Driver Education Advisory Committee to educate about the importance of back seat restraints*
- **2021:** UNC Highway Safety Research Center did a data analysis on this issue, reporting this analysis to this committee at the last meeting; the committee also heard a presentation at the last meeting from DPI related to the driver education program and opportunities to strengthen driver education as it relates to rear seat restraints.

# Highlights of previously presented information

- While passengers in all positions must be restrained, primary/standard enforcement seat belt laws in NC are only for those under age 16.
- **In prior study cycles this committee has reviewed evidence that shows:**
  - Primary/standard enforcement of seat belt laws lead to higher usage rates.
  - Seat belt use is the most effective way to prevent fatalities and injuries in a motor vehicle crash.
  - Unrestrained passengers in the back seat are a danger to themselves and to others they may be projected into during a crash.
  - In North Carolina, a greater percentage of fatal and serious injuries occur to unrestrained rear seat occupants than to unrestrained front seat occupants.
  - Odds of driver death are higher with an unrestrained rear seat occupant who could become a projectile during a crash.
  - An estimated 10 to 30 lives per year would be saved in North Carolina with standard/primary enforcement of rear seat restraints.



# Highlights of recent HSRC presentation

- Survey conducted in summer of **2021**: **about 58%** of respondents indicated **strong support** or **some support** for primary enforcement of rear seat restraints with **38% somewhat** or **strongly opposed** to it. **Support was a much lower level of support than other potential highway safety legislation posed in the survey.**
- The **vast majority of motor vehicle fatalities** (95%) and serious injuries (94%) **are of occupants in the front seat** (all vehicles have front seat occupants but many don't have rear seat occupants). [Data for ages 16 and up from 2010 to 2019]
- **Among rear seat fatalities, 74%** were unrestrained compared to **44%** in the front seat; among rear seat serious injuries, **53%** were unrestrained compared to **24%** in the front seat. [Data for ages 16 and up from 2010 to 2019]

# NC Passenger Vehicle Occupant Fatalities age 14/15 and 16/17, 2010-2019

	14-15 Year Olds		16-17 Year Olds	
	Front Seat	Rear Seat	Front Seat	Rear Seat
<b>Restrained</b>	27	7	112	14
<b>Unrestrained</b>	15	20	94	35
<b>Total</b>	42	27	206	49
<b>Enforcement</b>	Primary	Primary	Primary	Secondary

- Proportion of unrestrained fatalities in back seat is similar between 14/15 and 16/17 despite difference in primary/secondary enforcement
  - 74% of 14/15 year olds
  - 71% of 16/17 year olds
- Total # of fatalities is small but many more among 16/17 year olds.
- What could explain the larger # of fatalities among 16/17 year olds?
  - Young, inexperienced drivers and passengers of other young, inexperienced drivers
- Strong Graduated Driver Licensing System works to reduce crashes related to inexperience.

[Information presented by Highway Safety  
Research Center 11-8-21]

# Highlights of information presented by DPI on driver education

- **NC statutes require DPI to administer a driver education program** offered at all high schools; there are five specific requirements for the curriculum addressed in this statute.
- **DPI is getting ready to use a digitized version of a student curriculum** and teacher credentialing system; these are based on national tools and national standards.
- **A Driver Education Advisory Committee (DEAC)** makes recommendations to the State Board of Education on the implementation of the Driver Education Strategic Plan. DPI works with the DEAC to develop updates to the curriculum; DEAC members can make recommendations for the curriculum.
- **DPI is working with DEAC to develop a process for making changes to the curriculum** when changes are requested; the fact that the curriculum is digitized makes changes easier; requesting changes to curriculum related to rear seat restraints is feasible.
- Although the **digitized curriculum** has been developed, there is a **road block** with distribution of the curriculum due to a complication with the **user agreement** (they are working to address this) and the fact that driver education has a cap of **2% of the funds allotted** for the program to be spent on administrative costs.

# Child passenger safety laws

- 2019: Issue application by NC Child
- **NC's child passenger safety statutes differ** from the recommendations of the American Academy of Pediatrics and the National Highway Traffic Safety Administration (NHTSA)
- Application asked the CFTF to **administratively support a study** (by various highway safety experts and stakeholders) of this **lack of alignment**, its impact, and **whether NC law should be changed as a result**.
- **2020 and 2021**: CFTF had an administrative item on its agenda for **outside highway safety experts to study this issue** with the 2021 item specifying study by the **NC Occupant Protection Task Force**, bringing information back to the UD committee.

NC Child identified several areas where NC law differs from AAP recommendations (and from BuckleUpNC recommendations) and recommended **two primary areas of focus** for further study

	AAP Recommendation	NC Law	BuckleUpNC recommendation
<b>How long to ride in rear seat</b>	Children under 13 should be restrained in the rear seat (also a NHTSA recommendation) (regardless of other child passenger seat requirements)	“In vehicles equipped with an active passenger-side front air bag, if the vehicle has a rear seat, a <b>child less than five years of age and less than 40 pounds in weight shall be properly secured in a rear seat</b> , unless the child restraint system is designed for use with air bags.”	Children should ride in the back seat until they are 12 or 13.
<b>How long to ride in rear-facing seat</b>	Infants and toddlers should ride in a rear-facing seat as long as possible until they reach the highest weight and height allowed by the seat manufacturer	<b>Rear-facing seat not specifically referenced:</b> “A child less than eight years of age and less than 80 pounds in weight shall be properly secured in a weight-appropriate child passenger restraint system”	Children should stay rear- facing until they outgrow the rear-seat and at a minimum until at least age 2.

# Highlights of information presented after further study

- For crashes involving a serious or fatal injury for children ages 0-12 between 2015 and 2019 nearly 30% **were unrestrained.**
- **Analysis of these laws is complex** - there is **limited relevant data** available – this is particularly true with the rear-facing issue.
- **82% of all crash-involved children between ages of 5 and 12** between 2015 and 2019 were sitting in the rear seat [data from HSRC]. NC Child presented data from OCME showing that between 2014 and 2018, 27 % of passenger deaths of children ages 5 – 14 were in the front seat.
- A factor in determining whether children ages 5 -12 would be safer in the rear seat is quickly advancing vehicle safety technology; **research on newer vehicles suggests that rear seat safety is not advancing as quickly as the front seat**; a recent study showed that 9 – 12 year-olds **may be safer in the front seat in more modern vehicles.** For the 5 – 12 year-olds in the front seat in serious crashes analyzed, 70% of them were in vehicles older than 2007.
- **There have been no formal evaluations about whether updating laws to include specific requirements lead to reduced fatalities or injuries**, whether parents understand how to interpret the specific requirements, or how enforceable the law is. However one very narrow study of Wisconsin's change to a more detailed law **found no improvement after the law was enacted**

# Relevant developments

- **AAP** new child passenger safety recommendations **delayed until late 2022**
- The HSRC is conducting an occupant protection survey and interviews with law enforcement agencies in 2022, that will provide insights enforcement of child passenger safety laws in NC.

# Ignition Interlock (carry-over)

- CFTF legislative recommendation made each year since **2017**. 2021 Recommendation:  
*Support legislation that would require ignition interlocks for all DWI offenders.*
- **SB 183 became law as 2021-182** and although the bill does not expand the use of ignition interlocks to all DWI offenders as recommended by the CFTF, the **law requires studying the issue of expanded use.** (The bill changes several other aspects of laws addressing use of ignition interlocks related to alcohol impaired driving offenses – these changes are unrelated to CFTF work.)
- This study is to be performed by the **Joint Legislative Oversight Committee on Justice and Public Safety, reported** prior to the convening of the 2022 legislative session.



# Ignition interlocks and current law

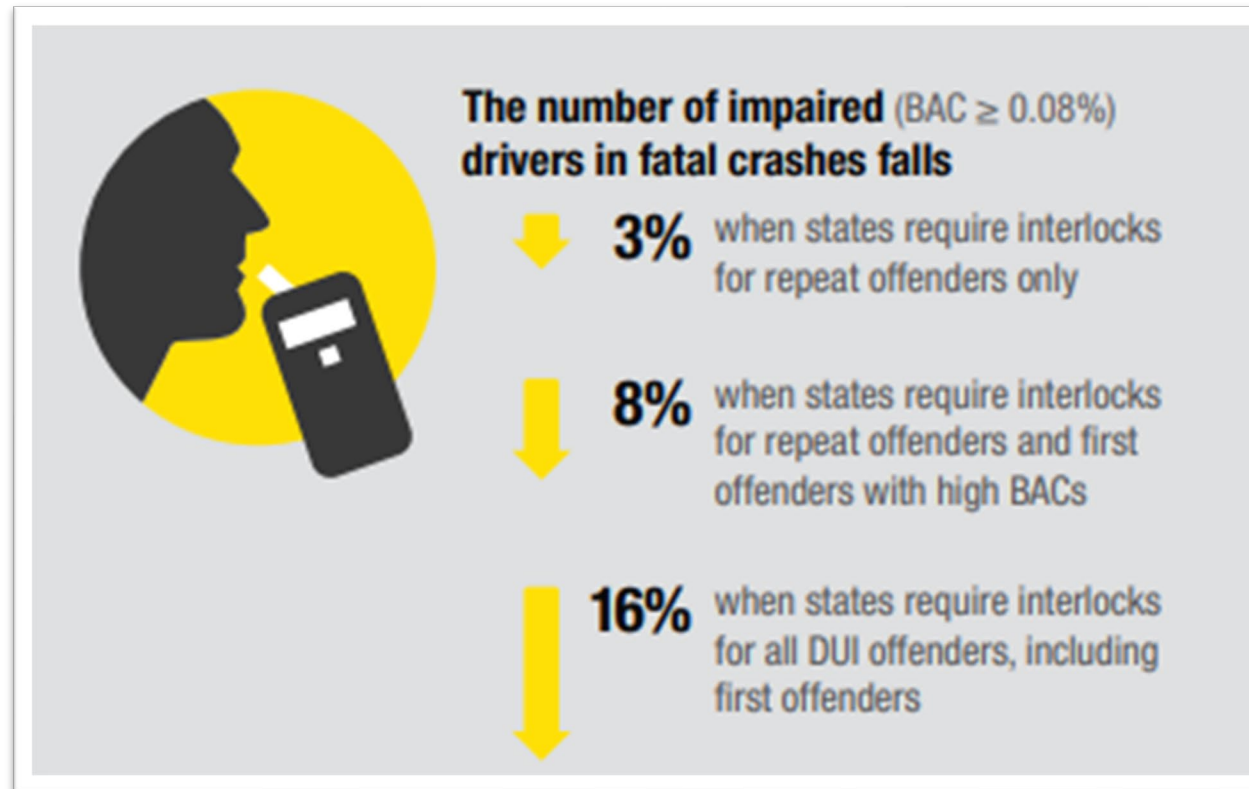
- **Alcohol ignition interlocks** are breath test devices installed in a motor vehicle to prevent operation of the vehicle by a driver who has a blood alcohol concentration (BAC) over a pre-set low limit (usually 0.02-0.04 BAC)
- Currently in NC, interlocks are **mandatory if BAC is >0.15 or if the person is a second or subsequent offender.**
- The majority of states (more than 30) have **statutes requiring ignition interlocks for all alcohol-DUI drivers**, including first-time offenders, but NC is not one of them.

# Highlights of information from prior presentations

- While installed, **ignition interlocks reduce re-arrest rates by 67%**
- Drivers with interlocks had **fewer alcohol-related crashes than those who only had licenses suspended for a DWI conviction**
- Overall crash rates for drivers with interlocks installed are **similar to the crash rates for the general driving population**
- The average alcohol-impaired driver has driven under the influence of alcohol **80+ times before their first arrest**

## CDC's Recommendation

Mandating interlocks for all offenders, **including first-time offenders**, will have the greatest impact.”



# Highlights of information presented at last meeting related to impact of alcohol-related crashes on kids

## **An impaired driver is a hazard to child passengers**

- On average, approximately **15 children** age 17 and younger are killed each year in NC in crashes involving an alcohol-impaired driver
- **43%** of those children killed in NC in crashes involving an alcohol-impaired driver were **16 and 17 year-olds**.
- There were about **11,000 crashes in NC between 2011 and 2020** where one of the drivers was suspected of using alcohol ***and a child was present***.
  - There were **18,000 kids involved in those 11,000 crashes**: **123** were killed, **344** had serious injuries, with **5600** more having some type of injury that was not classified as serious.
  - **7,244**: Children in the vehicle of the alcohol driver
  - **10,882**: Children in the other vehicle
  - **1,086**: Children who were the alcohol driver

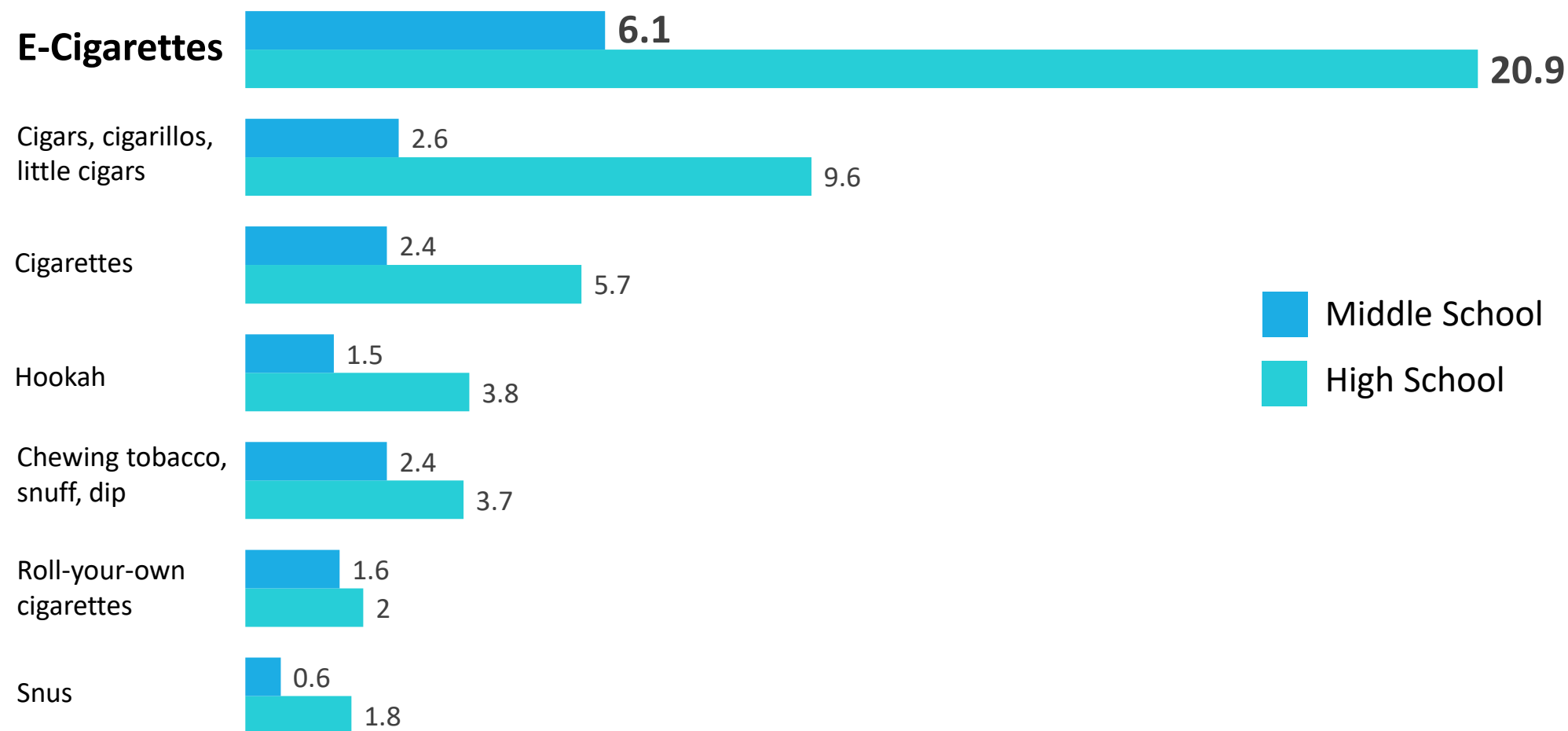
# Funding for Tobacco/ Nicotine Use Prevention (carry-over topic and issue application)

- CFTF Action Agenda has included a **recommendation to endorse efforts for new appropriations for tobacco/nicotine use prevention** each year since **2018**.
- **2021**: new issue application requested the CFTF to endorse for 2022 efforts for **recurring funding in the amount of \$17 million for tobacco use prevention programs**, including e-cigarette use prevention programs.
- The **2021** finalized budget includes funds from the Juul settlement (explained at the last meeting of this committee) to go to DPH for tobacco and nicotine dependence prevention and cessation activities targeted at youth and young adults
  - **\$13 million** nonrecurring year 1
  - **\$8 million** nonrecurring year 2
  - **\$2 million** of which is to go to reimburse litigations costs incurred by the AG in Juul litigation



# E-cigarettes #1 Product Used by Youth

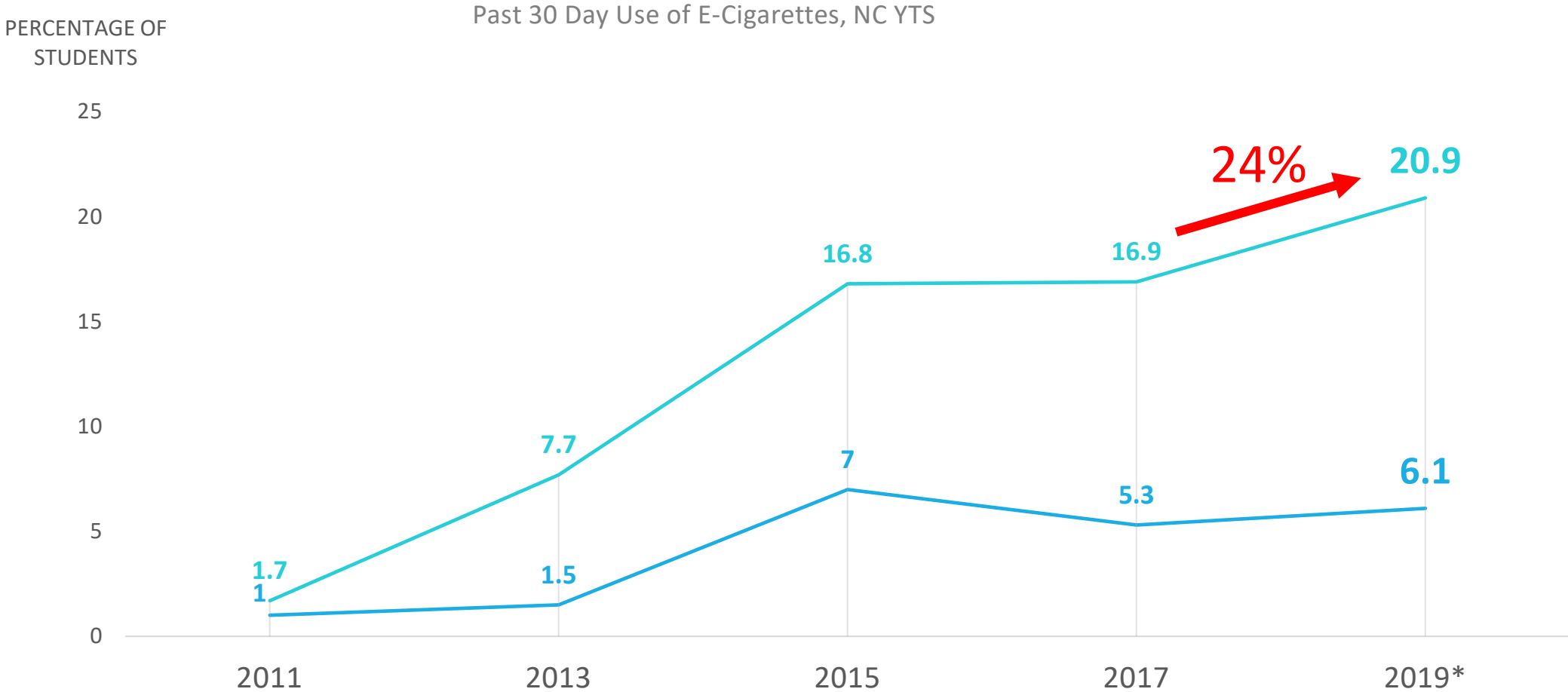
Past 30 Day Tobacco Product Use, NC YTS 2019



2019 estimates may not represent the full population due to low response rate



# E-Cigarette Use Continues to Increase



\*2019 estimates may not represent the full population due to low response rate

# Highlights of information from prior presentations

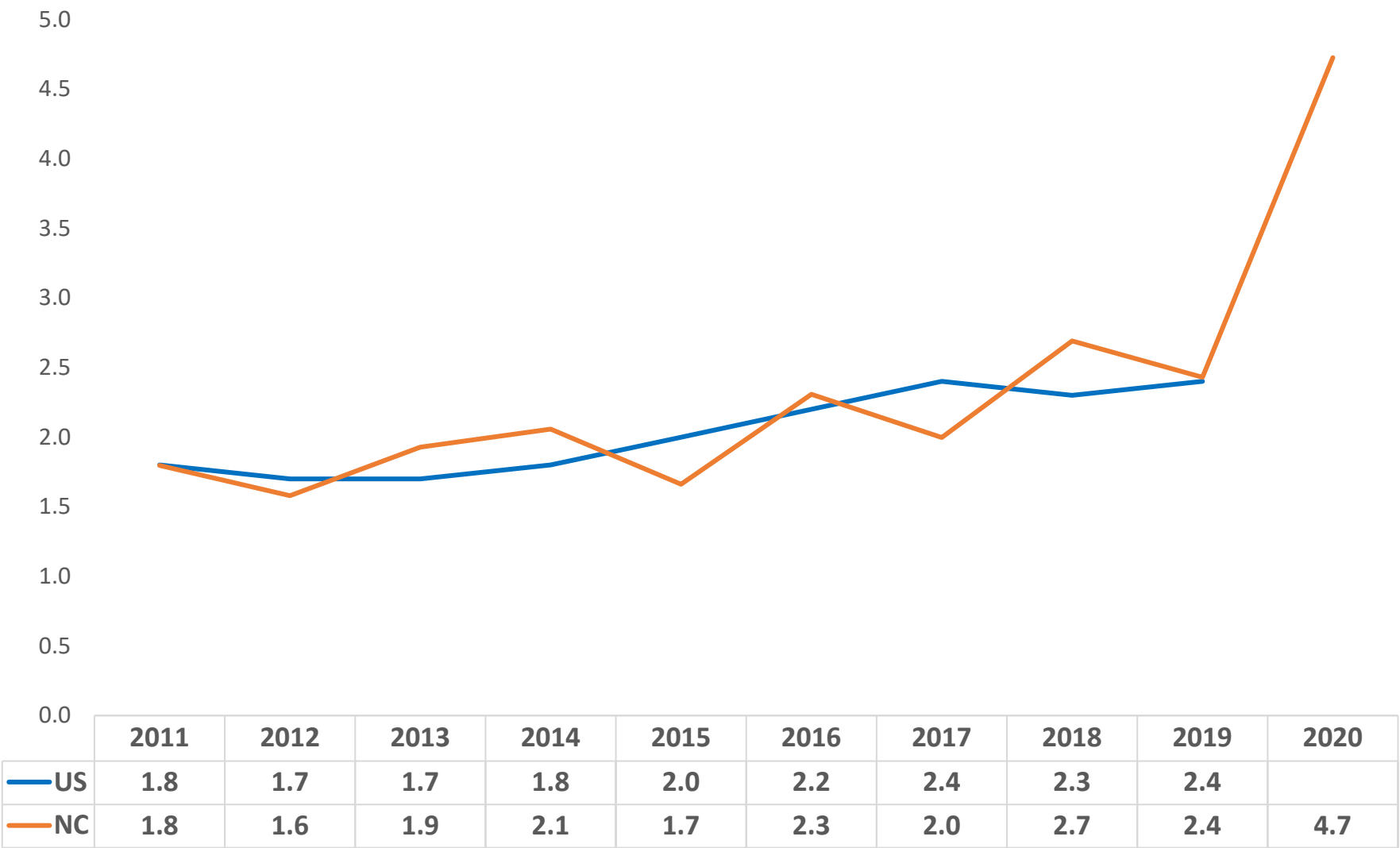
- **90%** of tobacco users **start before the age of 18**
- **State spending** on tobacco use prevention was **cut in 2013** despite the fact that since 2001, NC has received an average of **\$149.8 million per year from the Tobacco Master Settlement Agreement**
- **Nicotine is highly addictive** and **e-cigarettes can contain high doses of nicotine** coming in thousands of flavors attractive to youth.
- Nicotine use while the adolescent brain is developing **can disrupt brain circuit formation.**
- Nicotine is **toxic to developing fetuses** and impairs fetal brain and lung development and tobacco use during pregnancy is associated with leading causes of infant death.
- The statewide average of babies born to women who report using cigarettes during pregnancy has decreased to 7.6% but rural to urban/suburban disparities have increased
- Most school staff identify e-cigarette use among students as somewhat or very problematic



# Firearm Safe Storage & the CFTF

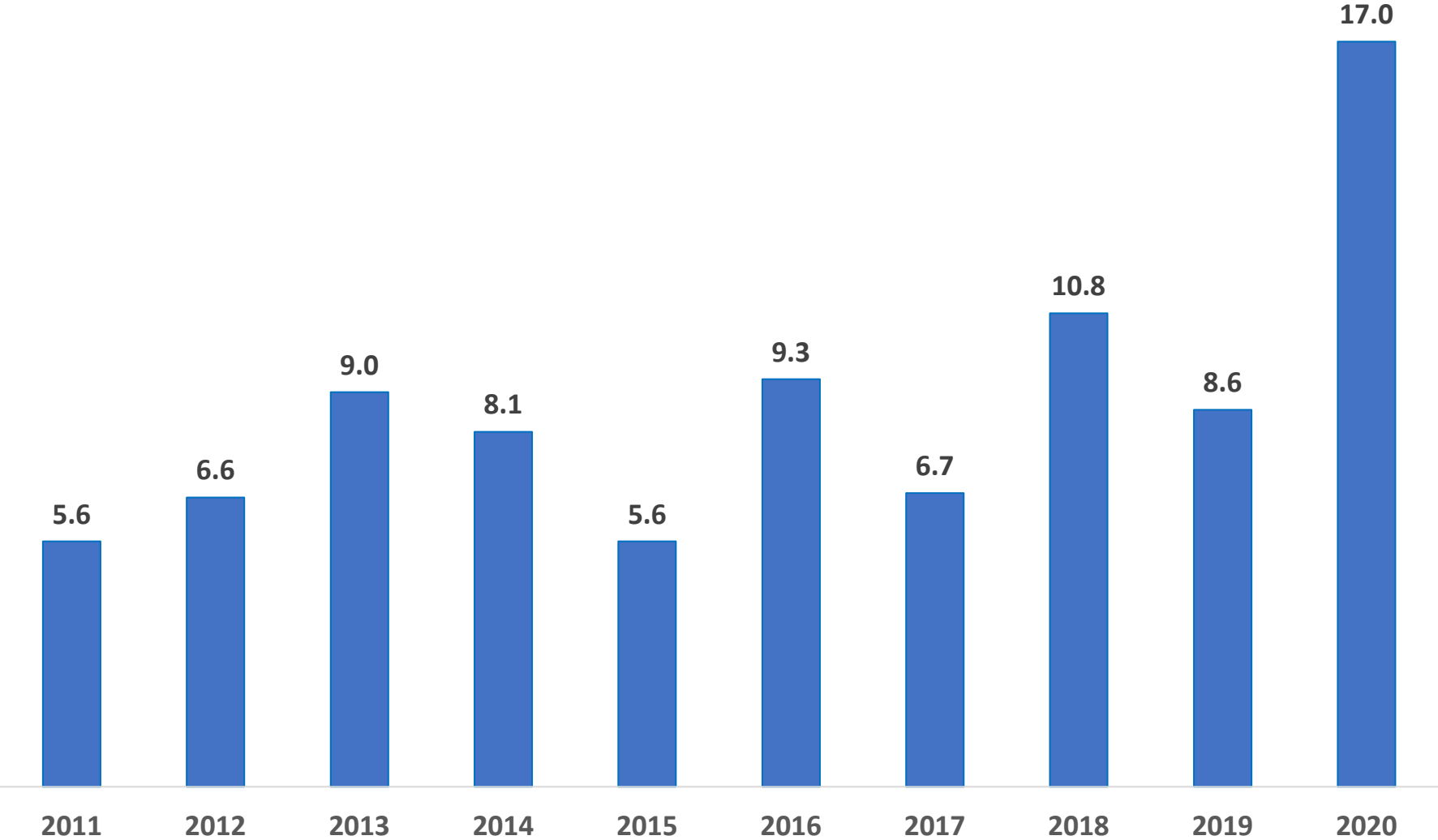
- CFTF has been recommending legislation to launch and fund a statewide firearm safe storage education and awareness initiative each year since 2018.
- This initiative grew from an initial recommendation of the **State Child Fatality Prevention Team** that reviews child deaths and expressed concerns about youth access to firearms in the context of suicide, which led to study and input from a **diverse group of stakeholders whose work in 2017 led to the CFTF recommendation for this initiative.**
- **In both 2019 and 2021, legislation was introduced to accomplish this recommendation** and has received strong bipartisan support, but has not become law.
- **In 2021, HB 427 passed the House on a vote of 116 to 1** and was also included in the House version of the budget, but was not included in the final budget.
- **This bill should be eligible for consideration in the 2022 short session.**
- Funding in the current proposed legislation is for \$86,500 year one and \$69,200 year two, all nonrecurring.

# Firearm-related Mortality Rates\*, Children Ages 0 to 17: NC & US, 2011-2020



\* Firearm deaths included the following ICD mortality codes : Unintentional W32-W34; Suicide X72-X74 , Homicide X93-X95, U014, Undetermined Y22-Y24

# Firearm-related Mortality Rates\*, Children Ages 15 to 17: NC, 2011-2020



*\* Firearm deaths included the following ICD mortality codes : Unintentional W32-W34; Suicide X72-X74 , Homicide X93-X95, U014, Undetermined Y22-Y24*

# Data Points

In 2020, the rate of firearm deaths of children increased 96% compared to 2019 for a rate that was the highest ever seen by the Task Force, with the State Center for Health Statistics reporting 105 deaths in 2020.

**From 2011 to 2020 (ten years), over 525 child deaths in NC due to firearm injury (age 17 and younger)**

From 2016 to 2019 (five years), 437 hospitalizations & 1,246 ED visits for children due to firearm injury.

In NC, firearms are the lethal means used in about **half of youth suicides**

**More than half of gun owners report not storing all of their guns safely.**

**There has been a dramatic rise in gun purchases**, logically resulting in more guns being accessible to youth at risk of harming themselves or others or curious children at risk of an accident.

# Highlights of information presented in prior meetings

- **Evidence is clear that a significant number of child/youth firearm deaths could be prevented through safe storage of firearms**
- More than **75% of guns used** in suicide attempts and unintentional injuries of kids **were stored in the home** of the victim, relative, or a friend (national study)
- **Safe storage is a school safety issue**: most school shootings involve guns owned by the shooter's family
- **Access to firearms is a known risk factor for suicide.**
- Many **suicide attempts are hastily decided** upon during a short-term crisis, with only minutes of deliberation prior to an attempt

# Launching and Funding the Firearm Safety Initiative

- A key strategy of this initiative is having individuals at the state level in public health who are dedicated to providing toolkits, **performing outreach, and providing technical assistance to local communities across the state to help them launch and tailor local firearm safety initiatives** to meet their needs. Locally tailored initiatives are believed to have the best chance at being effective in increasing safe storage practices.
- **Updated estimates** for the amount needed for the type of initiative outlined by the CFTF:
  - \$121,300** per year for an FTE and purchase of gun safety products
  - +
  - \$150,000** (over an 18 month period) to do an education and awareness campaign. = **\$271,300***Funding in current legislation: \$155,700 total for two years (nonrecurring)*

Issue  
Application:  
Require  
lifeguards at  
children's day  
camps offering  
time in the  
water

- Issue applicant is seeking for the CFTF to **endorse legislation that would require lifeguards at children's day camps** that offer time in the water.



# Highlights of data presented on child drownings

- NC - 2010 – 2019 (ten years): **277 accidental drownings** to children 17 and younger
- **Pools are the most common location for child drownings** in NC; most pool drownings of children in NC **occur in residential/private (nonpublic) pools (~ 75%)**
- **Summer months** are the most common time for child drownings
- The **age group of 1 to 4 has the highest** number of drownings in NC compared to other age groups
- CDC: **African American children ages 5 – 19** drown in swimming pools at rates **5.5 times higher than white children**
- CDC: For every **1 fatal** child drowning, another **8 receive medical care** for a non-fatal drowning



# Highlights of information from prior presentation or submitted by applicant

- Evidence presented – **lifeguard provide an important layer of protection to prevent drowning**; this was affirmed by stakeholders presented by the issue applicant and by some UD committee members during discussion.
- **A drowning death in NC of a child at a day camp** was discussed by issue applicant.
- The issue applicant shared a **letter they received from the American Red Cross strongly supporting legislation that requires lifeguards at public pools**, and shared a **letter they received from the CDC** that discusses the science and public health evidence concerning healthy and safe swimming and the **CDC's Model Aquatic Health Code** which addresses lifeguards among many topics aimed at drowning prevention and safety. (Letters posted on CFTF website)
- The issue applicant shared information that **some states have laws or administrative rules requiring lifeguards in camp settings when around water** (e.g., AL, DE, IN, KY, ME, MD, MA, MI, MO) (list posted on CFTF website)
- Many states including **NC require certified lifeguards in licensed childcare settings for water activities.**



# Highlights of information on relevant current laws and regulatory structures

## Presented by/sourced from DCDEE:

- **Most “day camps” in NC are not regulated in the context of child care** laws and rules because the definition of child care excludes many situations that may be considered a “day camp” (e.g.: recreational programs operated for less than four consecutive months per year, track-out programs, etc.)
- **For licensed child care programs, there are lifeguard requirements for aquatic activities.**
- The NC Division of Child Development and Early Education (**DCDEE**) **administers licensing for child care**, currently monitors **over 5600 child care programs** (at least 2 visits per year), and can take action against a license if program is not meeting licensing requirements.
- **DCDEE has no authority over a “day camp”** that is not “child care” and is not licensed as a summer day camp. There is no mechanism for DCDEE to track or know how many exempt programs (“day camps”) exist.
- **A summer day camp not required to be licensed as child care may voluntarily seek to be licensed as a child care program** as this enables them to be eligible to receive payment through the subsidized child care program. A small number of these types of day camp programs who are not required to be licensed have obtained a child care license in NC (e.g., during the summer of 2021 there were 2 summer camp programs and prior to COVID, during the summer of 2019, there were 11 summer camp programs licensed.)

**Other information:** Staff at **Children’s Foster Care Camps** are required to have training in a basic emergency water safety course; a minimum of two counselors for each ten children participating in activities involving water is required.

# Highlights of information presented on relevant current laws and regulatory structures (continued)

- In the **public health context**, “summer camps,” including **day camps**, are **regulated for sanitation; public pools are regulated for construction and operation**.
- **Summer camps, including day camps, are required to operate with a permit.**
- **Requirements for summer camps are *focused on sanitation* (food and water, lodging, vermin control, employee health) and *do not address safety for aquatic activities such as lifeguards*.**
- Public pools are required to have a permit; **pool requirements do not require public pools to have lifeguards.**
- There are different structures within the NC Division of Public Health for permitting, monitoring, and enforcement of laws and regulations addressing summer camps and pools.
- **Local health departments** carry out the State rules for enforcement by inspecting and visiting the camps as required.
- The **Public Health Commission has the statutory authority** to adopt rules governing the sanitation of establishments that provide food, drink, or lodging for pay and the authority to adopt rules concerning the construction and operation of public swimming pools. **The Commission cannot adopt rules outside of its statutory authority.**
- DPH speaker also noted that there has been a **lifeguard shortage** that has led to pool closures.

# Main components of the law the issue applicant is seeking:

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- The legislation would apply to all day camps that have children in or around water.
- Lifeguards would be required for **any pool or alternative bodies of water** that are utilized in the camp curriculum (to the extent that other laws addressing water activities don't apply).
- Lifeguards would be required to be **nationally certified in CPR and AED**, ages 16 or older.
- There would be requirements based on research and best practice related to **ratios of lifeguards to number of children** such as two lifeguards for the first 25 campers and an additional lifeguard for every additional 20 campers or portion thereof. There would also be requirements for the **height of the lifeguard's chair** based on research and best practice.
- The **day camp operator would be responsible** for ensuring compliance with the requirements.
- The day camp would be required to have a lifeguard perform a **swim test** at the beginning of camp to determine a child's swimming skill level.

Issue  
application:  
change in law  
to permit  
pedestrian  
and bicycle  
infrastructure  
funding

- **2021** issue application asking the CFTF to **endorse elimination of a law passed in 2013 which prohibited the use of state transportation funding related to independent pedestrian and bicycle infrastructure projects**
- This committee heard an initial presentation on this topic from the issue applicant in October
- Postponed another presentation on the topic to answer committee questions until today pending the outcome of proposed legislation.

In the 2021 session there was proposed legislation in the House version of the budget bill (SB 105) that addressed the change to allow for this funding – it was not in the final budget.

....  
**SECTION 41.46.(b)** G.S. 136-189.11 reads as rewritten:  
**"§ 136-189.11. Transportation Investment Strategy Formula.**

...  
(d) Transportation Investment Strategy Formula. – Funds subject to the Formula shall be distributed as follows:

...  
(3) Division Need Projects. – Thirty percent (30%) of the funds subject to this section shall be allocated in equal share to each of the Department divisions, as defined in G.S. 136-14.1, and used for Division Need Projects.

...  
c. Bicycle and pedestrian limitation. – The Department ~~shall not~~ may provide financial support for federal or local government funded independent bicycle and pedestrian improvement ~~projects, except for federal funds administered by the Department for that purpose. This sub-subdivision shall not apply to funds allocated to a municipality pursuant to G.S. 136-41.1 that are committed by the municipality as matching funds for federal funds administered by the Department and used for bicycle and pedestrian improvement projects. This limitation shall not apply to funds authorized for projects in the State Transportation Improvement Program that are scheduled for construction as of October 1, 2013, in State fiscal year 2012-2013, 2013-2014, or 2014-2015.~~ projects.

# Highlights of information from prior presentation

- NC, 2010 to 2019 - **147 child pedestrian deaths** and the rate of these deaths in NC has for most of that time been **above national rates**.
- When involved in a pedestrian-vehicle crash, children in North Carolina are more likely to suffer severe or fatal injury than older pedestrians; children also have a higher likelihood of enduring a traumatic brain injury.
- Access to safe infrastructure for walking and bicycling has a positive impact on children's health, including reducing the likelihood of fatality risk.
- Replacing some car trips with walking and biking can decrease air pollution and numerous associated health effects for children and families.

# Highlights from prior presentation

- The **Safe Routes to School program**, which provided funding to improve the built environment by constructing sidewalks, bicycle lanes, and safe crossings near schools between 2005- 2009, was shown to **reduce the fatality risk of school-age children by 20%** compared to adults 30-64 nationally
- **Without access to state funds**, communities are **often barred from receiving state matching dollars** for any projects that do not also include road or transit work. They are therefore often unable to carry out planned infrastructure projects to support people walking and riding bicycles.
- **Stakeholder support:** Partners in road safety coalitions and in agencies across the state have **cited the law as a core barrier** to creating safer communities for children and their families; **700 members of the public as well as 11 metropolitan and rural planning organizations signed a letter requesting this change in the law.**



# Injury Reduction Potential of Reinstating State-funded Walking and Bicycling Infrastructure



# Children are especially vulnerable to road injury

- Among children ages 1-17 years, motor vehicle injuries are the leading cause of death in North Carolina, accounting for almost 1 in 5 childhood deaths (NC Division of Public Health, 2020)
- When involved in a pedestrian-vehicle crash, children in North Carolina are more likely to suffer severe or fatal injury than older pedestrians (Harmon, Hancock, Waller, & Sandt, 2020)
- Children also have a higher likelihood of enduring a traumatic brain injury, which often impairs their neurologic development and capacity to meet developmental milestones (Taylor, Bell, Breiding, & Xu, 2017)
- Children are more likely to be struck by drivers in parking lots and driveways, two places safe pedestrian infrastructure could help to reduce the likelihood and severity of crashes (Sandt, Proescholdbell, & Evenson, 2020).
- Crashes involving children walking or biking are more likely to be fatal, illustrating the importance of safe infrastructure for these modes of travel for youth (McDonald et al., 2015).



# Racial inequities in child road trauma

- Black/African American children **make up 23% of NC's youth population** and yet **represent 37% of all child pedestrian fatalities**.
- Similarly, American Indian children **make up 1% of NC's youth population** but **represent 2% of all child pedestrian fatalities in the state**.
- Low-income and minority neighborhoods are 3x less likely to have access to personal vehicles (Fliss, 2019) AND active transportation options (Braun, Rodriguez, & Gordon-Larsen, 2019).
- With the long-overdue focus on racial equity, reinstating the ability for local communities to use state funding to install stand-alone bike and pedestrian safety projects would enable communities to rectify past inequities and create safer communities for everyone in NC.





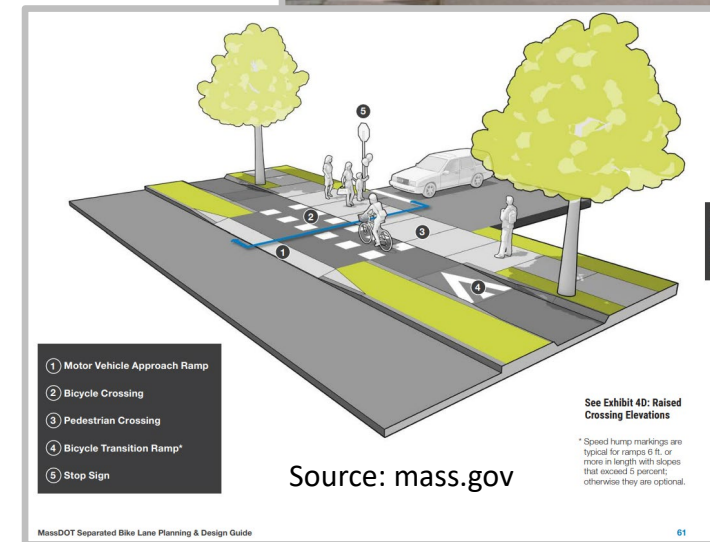
# State of the art: Crash reduction studies

- Crash Reduction Factor (CRF) studies observe crash patterns at hundreds of intervention and control sites and employ Bayesian analysis to calculate expected change in crashes at both types of sites over time.
- Examples:
  - Installing Rectangle Rapid Flash Beacons (RRFBs) – (is associated with a) **47% crash reduction** (Zegeer, et al., 2017)
  - Installing Pedestrian Hybrid Beacons (PHBs) – **43% crash reduction** (Fitzpatrick et al., 2019).



# Raised crossings

- Installing raised pedestrian crossings – **32% crash reduction** (Zeeger, et al., 2017)
- Installing raised bicycle crossings – **51% crash reduction** (Schepers et al., 2011)
- Installing separated bike lanes – **45% crash reduction** (Schepers et al., 2011)





# Child pedestrian-focused studies

- Sadly, few robust studies focus on child pedestrian safety effects of infrastructure changes.
- One exception:
  - In NYC, comparing census tracts with completed Safe Routes to School (SRTS) improvements (e.g., new traffic and pedestrian signals, adding timed crossings that allow pedestrians to cross before cars, high visibility crosswalks) to non-SRTS census tracts, there was a **44% overall pedestrian injury risk reduction during school travel times**; and comparing census tracts with completed SRTS interventions to census tracts with incomplete SRTS interventions, **there was an overall injury risk reduction of 32%** (DiMaggio, et al., 2014).



**GENERAL ASSEMBLY OF NORTH CAROLINA  
SESSION 2013**

**SESSION LAW 2013-183  
HOUSE BILL 817**

AN ACT TO STRENGTHEN THE ECONOMY THROUGH STRATEGIC  
TRANSPORTATION INVESTMENTS.












Bicycle and pedestrian limitation. – The Department shall not provide financial support for independent bicycle and pedestrian improvement projects, except for federal funds administered by the Department for that purpose. This sub-subdivision shall not apply to funds allocated to a municipality pursuant to G.S. 136-41.1 that are committed by the municipality as matching funds for federal funds administered by the Department and used for bicycle and pedestrian improvement projects. This limitation shall not apply to funds authorized for projects in the State Transportation Improvement Program that are scheduled for construction as of October 1, 2013, in State fiscal year 2012-2013, 2013-2014, or 2014-2015.

# Strategic Transportation Investments (STI) Law and Policy Caps


The 2013 Strategic Transportation Investments (STI) law prescribes how all modes of transportation (highway, aviation, bicycle-pedestrian, ferry, public transportation, and rail) compete for eligible state and federal capital funds.

The STI law is implemented through North Carolina Department of Transportation's (NCDOT) Strategic Prioritization Process and the development of the State Transportation Improvement Program (STIP). Project eligibility, caps, and highway scoring criteria are defined within three funding categories (*Statewide Mobility*, *Regional Impact*, and *Division Needs*) split 40%/30%/30% across NCDOT's programming budget. NCDOT works closely with Metropolitan and Rural Planning partners (MPOs/RPOs) to evaluate and score projects under this process to meet future needs. Eligible projects not funded through *Statewide Mobility* cascade and compete in *Regional Impact* and ultimately *Division Needs* categories. Bridge replacement, Interstate maintenance, and safety programs secure funding through STI categories without being subject to standard STI criteria. Surface Transportation Block Grant—Direct Attributable (STBG-DA) Transportation Alternatives and Rail-Highway Crossing eligible projects are funded from *Division Needs* but are evaluated through a separate prioritization process.

## STI LAW (GS 136.189.10 AND .11)—ELIGIBILITY BY FUNDING CATEGORY

TOTAL SCORE:  Data  Local input points			
Modes	Statewide Mobility (40%) 	Regional Impact (30%) 	Division Needs (30%) 
 AVIATION	Commercial service airports with international passenger service or with 375,000 or more annual enplanements	Commercial service airports not eligible in Statewide Mobility	All General Aviation airports
 HIGHWAY	Interstates (existing and future), National Highway System routes, U.S. Department of Defense Strategic Highway System, Appalachian Development Highway System routes, uncompleted Intrastate projects, designated toll facilities	Other U.S. and North Carolina routes	All Secondary roads and federal aid eligible local roads
 RAIL	Freight capacity and safety improvement projects to Class I rail corridors	Projects on rail lines that span two or more counties, including passenger service	All other projects on rail lines and stations, not including short lines
 FERRY	Not eligible	State maintained system and infrastructure expansion projects	Replacement vessels
 PUBLIC TRANSPORTATION	Not eligible	Bus, commuter, intercity, and light rail service projects that span more than one municipality	Other service and all facilities, including shelters, multimodal terminals, and stations serving passenger transit systems
 BICYCLE-PEDESTRIAN	Not eligible	Not eligible	Federally funded projects which do not require state funds

## FUNDING CAPS


 **AVIATION** Annual financial participation in any single airport project may not exceed \$500,000 in the Statewide category and cannot exceed \$300,000 in the Regional category. Annual financial participation cannot exceed \$18.5 million in the Division category. \$75 million is available annually for commercial service improvements outside of STI.

### HIGHWAY (STATEWIDE MOBILITY CORRIDOR CAP)

- **Statewide Mobility Corridor Cap**—No more than 10% of Statewide category funds over any five-year period may be programmed to any contiguous highway project or group of projects in the same corridor within an NCDOT Division or adjoining divisions.
- **Bonus Allocation**—50% of direct local participation or 50% of the amount of toll revenue bonds (no more than 10% of the Regional or Division category allocation) can go back to local jurisdictions to apply to other highway projects at their discretion.

 **RAIL** No caps on freight rail eligible projects in the Statewide category. Other passenger service (light rail or commuter rail) is defined as Public Transportation under STI.







 **FERRY** No caps, however \$4 million of legislatively directed vessel replacement funds are available annually outside STI.

 **PUBLIC TRANSPORTATION** Amount of funds programmed cannot exceed 10% of any region's allocation. Total state funding for light rail and commuter rail projects cannot exceed 10% of estimated project cost.

 **BICYCLE-PEDESTRIAN** No state funds can be used for Bicycle-Pedestrian Projects.



STI LAW (GS 136.189.10 AND .11)—ELIGIBILITY BY FUNDING CATEGORY

Modes		Statewide Mobility (40%) <div><div>100%</div></div>	Regional Impact (30%) <div><div>70%</div><div>30%</div></div>
 AVIATION	Commercial service airports with international passenger service or with 375,000 or more annual enplanements	Commercial service airports not eligible in Statewide Mobility	
 HIGHWAY	Interstates (existing and future), National Highway System routes, U.S. Department of Defense Strategic Highway System, Appalachian Development Highway System routes, uncompleted Intrastate projects, designated toll facilities	Other U.S. and North Carolina routes	
 RAIL	Freight capacity and safety improvement projects to Class I rail corridors	Projects on rail lines that span two or more counties, including passenger service	
 FERRY	Not eligible	State maintained system and infrastructure expansion projects	
 PUBLIC TRANSPORTATION	Not eligible	Bus, commuter, intercity, and light rail service spanning two or more counties and serving more than one municipality	
 BICYCLE-PEDESTRIAN	Not eligible	Not eligible	

# At the Division Level and at NCDOT

 <b>BICYCLE-PEDESTRIAN</b>	Not eligible	Not eligible	Federally funded projects which do not require state funds
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**BICYCLE-PEDESTRIAN** No state funds can be used for Bicycle-Pedestrian Projects.

# Potential Ways to Support Reinstating Funding for Active Transportation Projects

- Continue to support the repeal of the bicycle and pedestrian funding limitation in the next session.
- Support the inclusion of the vetted budget language as part of the next technical corrections bill.

“Bicycle and pedestrian limitation. – The Department ~~shall not~~ may provide financial support for federal or local government funded independent bicycle and pedestrian improvement projects.”

# Issues for potential recommendations

- Rear seat restraints
- Child passenger safety laws
- Ignition interlocks
- Funding for tobacco use prevention
- Firearm safe storage
- Lifeguards at day camps
- Law impacting pedestrian infrastructure funding

## For each item under consideration:

- Is there an administrative or legislative recommendation to be made or is no recommendation appropriate at this time?
- If administrative, what does the committee want to accomplish and how to word the administrative recommendation accordingly.
- If legislative, is the recommendation to **endorse** (someone else leads) or **support** (CFTF leads)?
- Is there a need to prioritize legislative recommendations?

The following slides provide *examples* of recommendations as a starting point for discussion.

The **committee** is free to raise different recommendations OR **make no recommendation** on any item being considered.

Legislative items are either *support* (CFTF leads) or *endorse* (another organization has indicated they are leading)

**Administrative** items do not involve legislation

Motor Vehicle Carry-Over Topics	Examples of Administrative Recommendations	Examples of Legislative Recommendations
1. Rear Seat Issue	<ul style="list-style-type: none"> <li>A. CFTF to write a letter to the Driver Education Advisory Committee to request that the curriculum include robust education around the importance of using rear seat restraints.</li> <li>B. Administratively support efforts (by whom?) to strengthen public education and awareness about the importance of rear seat restraints.</li> <li>C. Continue to gather information (what information is needed, to what end, by whom?)</li> </ul>	Repeat recommendation from other years to change the law to allow for primary enforcement of rear seat restraints for all ages.
2. Child Passenger Safety	Continue study of current NC child passenger safety laws and revisit the potential need for changes in NC child passenger safety laws after the AAP releases revised recommendations related to child passenger safety.	Support legislative changes to strengthen North Carolina’s child passenger safety laws to align with AAP child passenger safety recommendations related to age requirements for children to ride in the front seat and requirements related to utilizing a rear-facing seat for infants and toddlers.
3. Ignition Interlock	Revisit the issue of requiring ignition interlocks for all alcohol-impaired DWI offenders after reviewing the report on expanded use of ignition interlocks that is required to be submitted to the Joint Legislative Oversight Committee on Justice and Public Safety.	Support legislation to require ignition interlocks for all alcohol-impaired DWI offenders, including first-time offenders.

Carry-over legislative items	Examples of Administrative Recommendations	Examples of Legislative Recommendations
<b>5. Firearm safe storage initiative</b>	Further study/gathering of information (to what end and by whom?)	<p>A. Support state funding for a new statewide firearm safety initiative, as recommended by the 2017 Firearm Safety Stakeholder group, that is focused on education and awareness surrounding firearm safe storage and distribution of free gun locks with minimum two-year funding of \$155,700 (contained in current legislation)</p> <p>B. Same as above but revise funding amount (consider updated estimates of \$121,300 per year (for duration of initiative) and \$150K nonrecurring</p>
<b>6. Tobacco and nicotine use prevention funding</b> (also issue application)	Further study/gathering of information (to what end and by whom?)	<p>A. Endorse appropriation of \$17 million in recurring funds for programs to prevent tobacco use and cessation by youth and to prevent harms to infants and children caused by tobacco use.</p> <p>B. Same as above but revise funding amount (consider \$13 million in nonrecurring appropriated in 2021 budget)</p>

New Issue Application Topics	Examples of <b>Administrative</b> Recommendations	Examples of <b>Legislative</b> Recommendations
<b>7. Law to require lifeguards at day camps</b>	<p>A. Engage in further study about legislation requiring lifeguards at day camps offering time in the water to bring information back to CFTF (to what end, by whom?).</p> <p>B. Acknowledge the public health efficacy of utilizing lifeguards as a strategy to prevent child drownings in settings where children are in or around water, including day camp settings.</p>	Endorse legislation requiring lifeguards at children’s day camps that offer time in the water.
<b>8. Law impacting pedestrian infrastructure funding</b>	Engage in further study about eliminating the 2013 law that prohibits the use of state transportation funding related to independent pedestrian and bicycle infrastructure projects (to what end, by whom?)	Endorse legislation that eliminates the 2013 law prohibiting the use of state transportation funding related to independent pedestrian and bicycle infrastructure projects.



# The Young Driver Licensing System in North Carolina:

## Rationale & Effects

Robert Foss, Ph.D.

University of North Carolina – Chapel Hill

NC Child Fatality Task Force  
Unintentional Death Committee  
Raleigh, NC  
January 10, 2022  
[Rob.Foss@unc.edu](mailto:Rob.Foss@unc.edu)

# Overview

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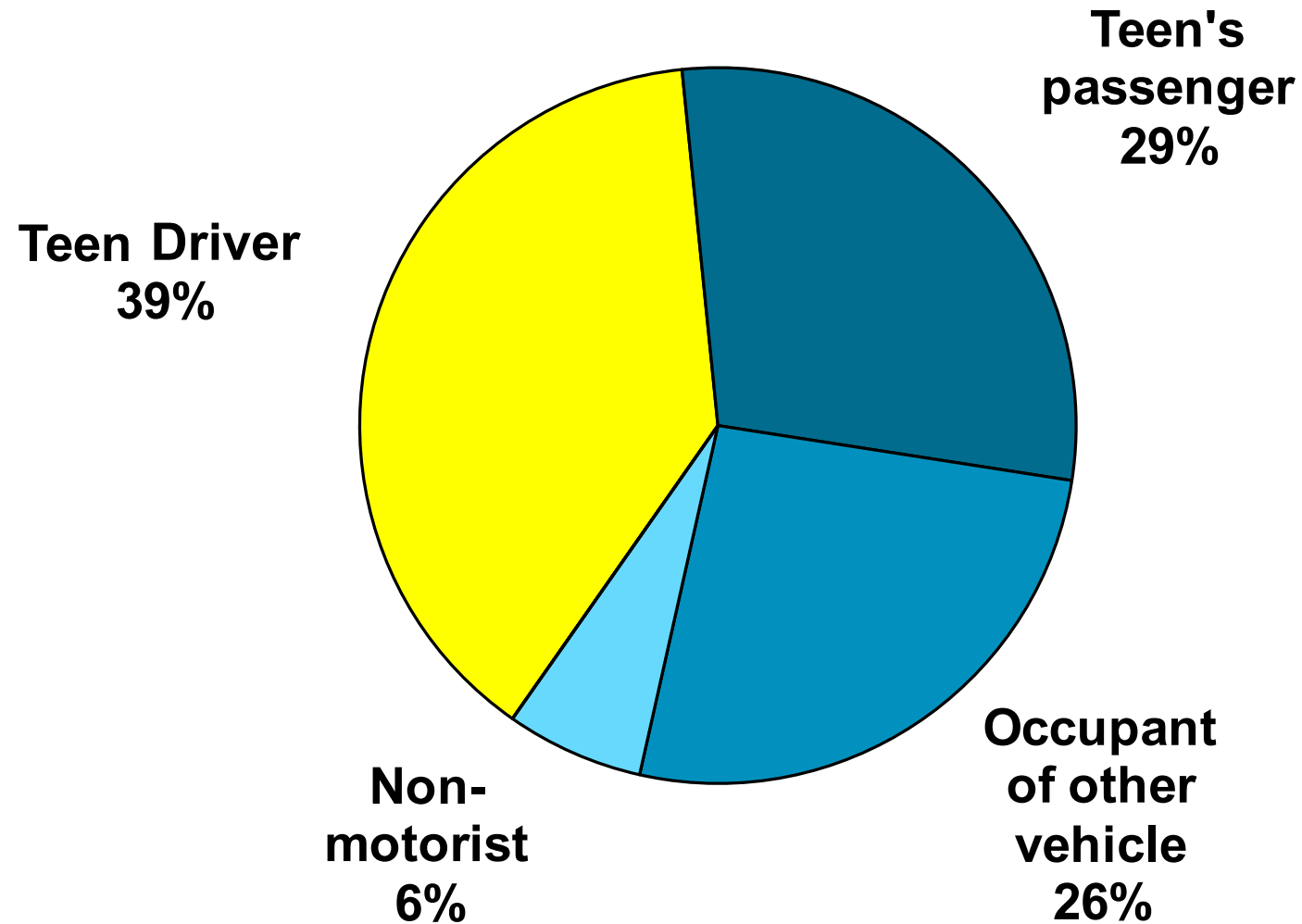
- ❑ 3-minute History
- ❑ Why a 12-month learner period?
- ❑ Effect of on-road driving test



The young driver licensing system  
is an adolescent health program!

But it also protects every road user,  
regardless of age.

# Victims in teen driver fatal crashes, NC



# Young Driver Crashes by Months Licensed





# Graduated Driver Licensing

## The Principle:

Maximize Experience

Minimize Risks

For all young novice drivers

# North Carolina Led the Nation in 1997

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- ❑ Adopted 3-stage licensing (GDL)
- ❑ Overwhelming, bipartisan support
- ❑ 34 Senators, 101 Representatives co-sponsored the bill!
- ❑ Parents, teens, general driving public, all strongly approved this approach (and still do)
- ❑ NC got it right in the beginning!  
(CFTF played a huge role in this.)



# NC Original 3-stage Licensing System

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Learner license – 12 months

Adult Supervised driving only

Intermediate license – 6 months

Adult Supervision required *only* when:

Driving from 9 p.m. – 5 a.m.

\* Carrying > 1 teen passenger

Full license

\* added in 2002





Why 12-months?

# Reasons for 12-month learner period

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6 mo. not long enough get adequate experience

Mandating hours alone can't address this

Busy schedules limit opportunities

Wide variety, not just time, is important

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---

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Wide variety, not just time, is important

**All season driving experience essential**

Bad weather greatly concerns parents

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**Effect on crashes is greater**

**More effective in achieving ultimate goal**

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Effect on crashes is greater

More effective in achieving ultimate goal

**Parent experience confirms appropriateness**

**Parents strongly endorse 12 mo.**



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---

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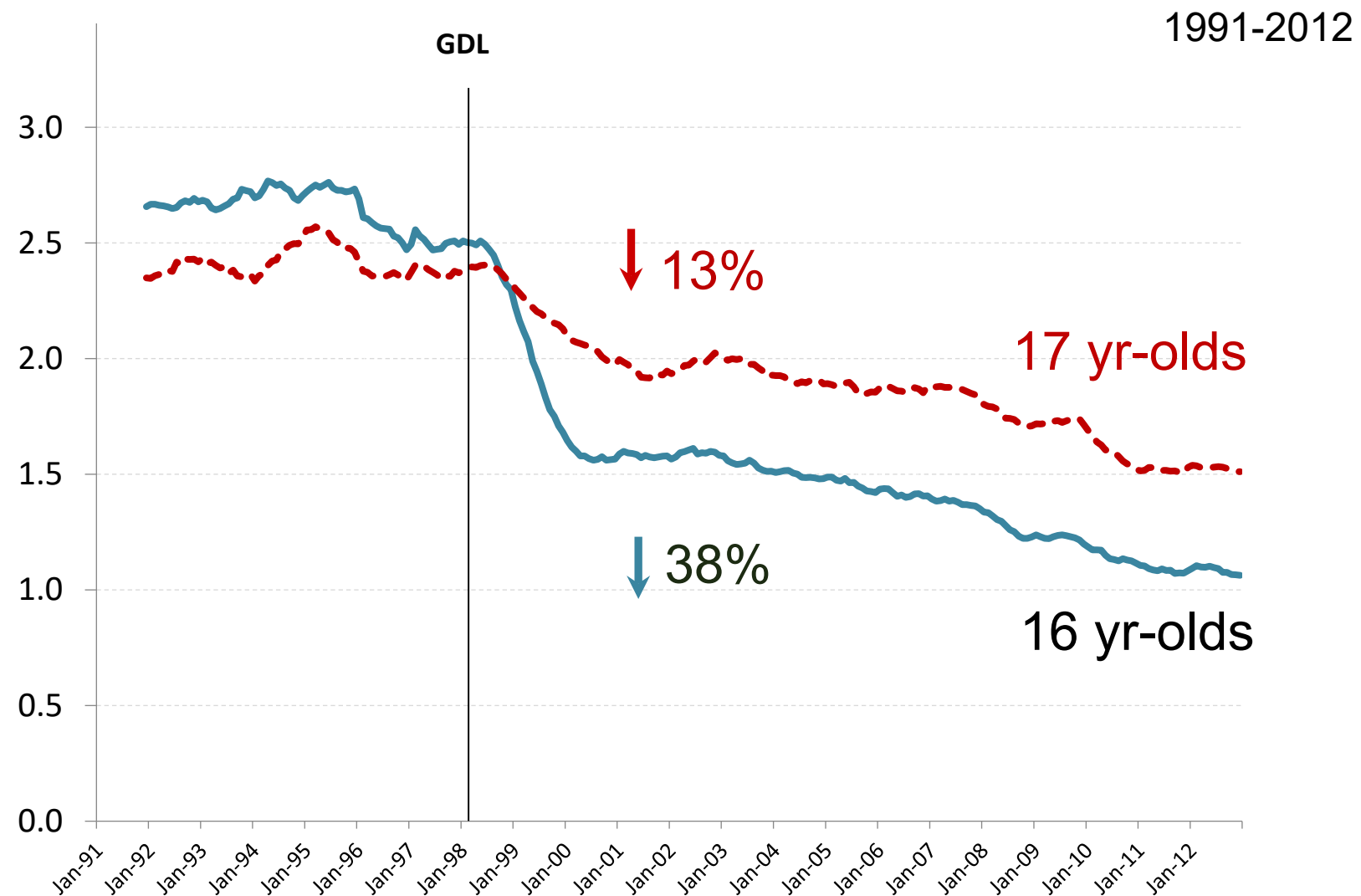
Effect on crashes is better

More effective in achieving ultimate goal

Parent experience confirms appropriateness

Parents strongly endorse 12 mo.

# Teen vs. adult crash rate declines due to GDL





# How does NC compare to other states?

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Simple question, with a complex answer!

Requires:

- Appropriate study design

- Complex statistical analyses (ARIMA modeling, Poisson Regression, etc.)

- Equivalent high quality data from every state

States differ in many ways besides their licensing requirements

- Must be accounted for in the analysis

- Difficult to measure well

- Driver license count data highly problematic (incl. NC)





# Longer learner periods mean safer roads

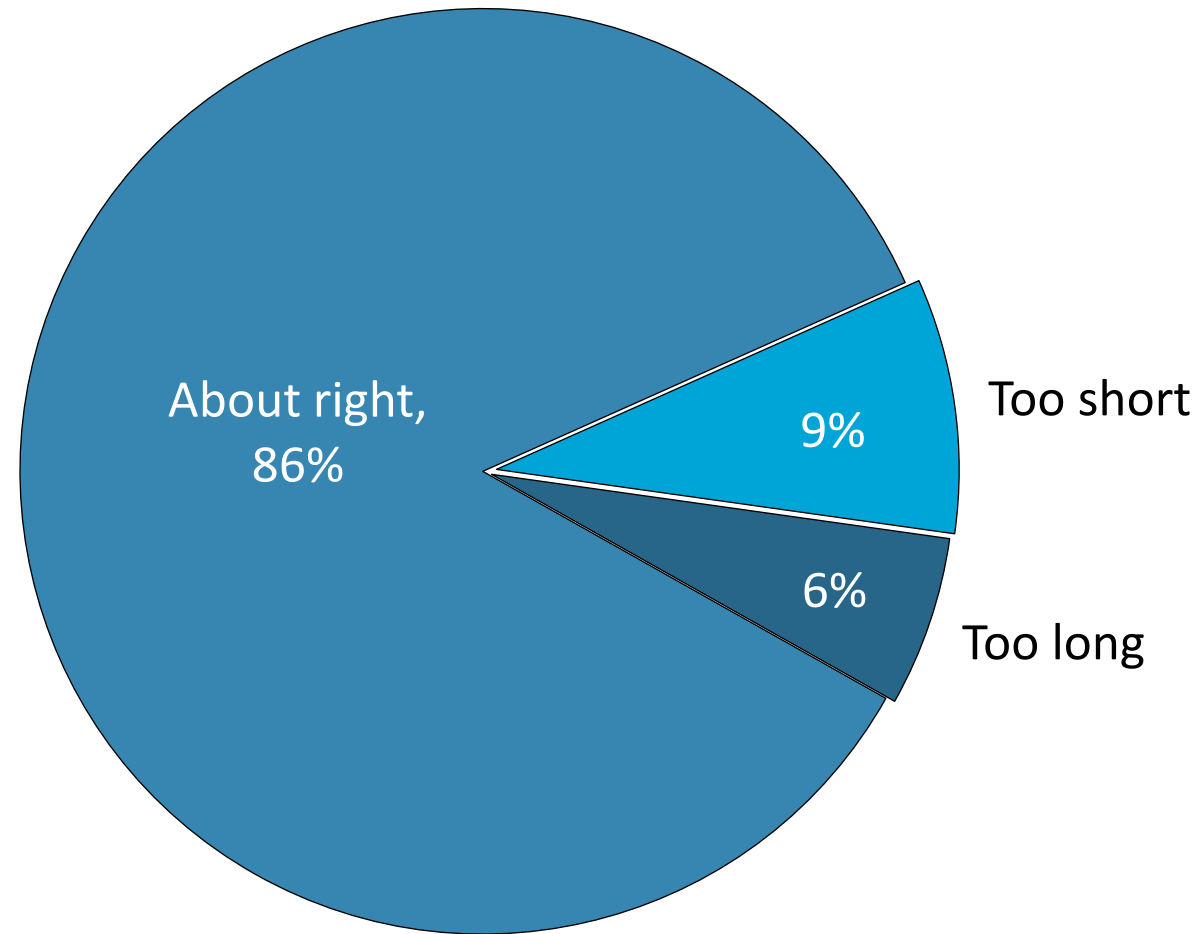
## Change in 16-17-yr-old driver fatal crashes

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Learner period duration (months)	State fatal crash decline	Average decline by learner duration
<b>12 Months</b>		<b>- 30%</b>
North Carolina	- 30%	
<b>6 Months</b>		<b>- 12%</b>
Minnesota	- 19%	
Connecticut	- 17%	
Kentucky	- 9%	
Virginia	- 6%	
<b>3 Months</b>		<b>- 4%</b>
Hawaii	- 11%	
South Carolina	- 3%	
Tennessee	- 0.8%	

# NC Parents' Opinion of 12-month Learner Period

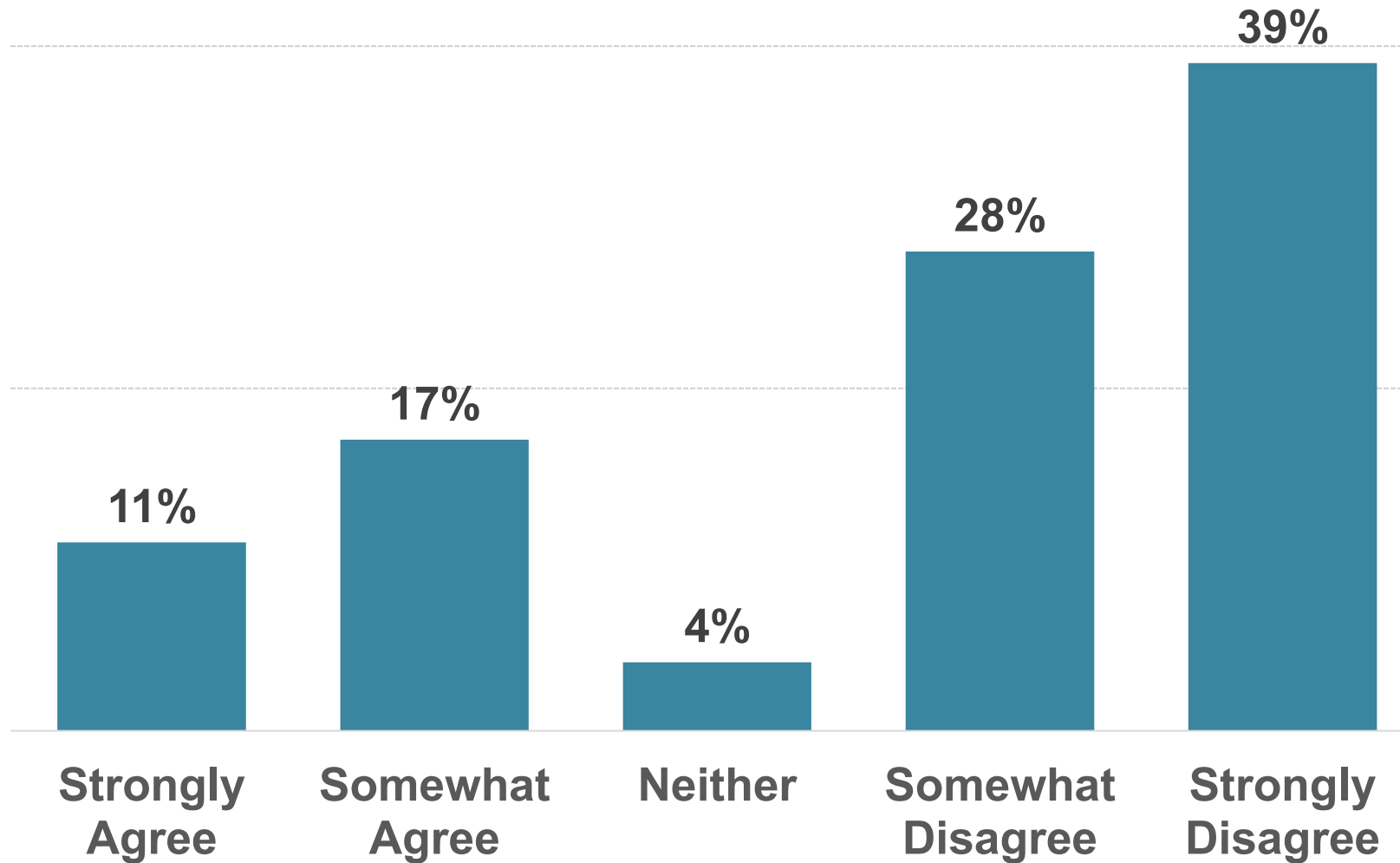
1999 & 2013





# NC Parents' Opinion of Reducing Learner Period from 12 to 6 months

2021

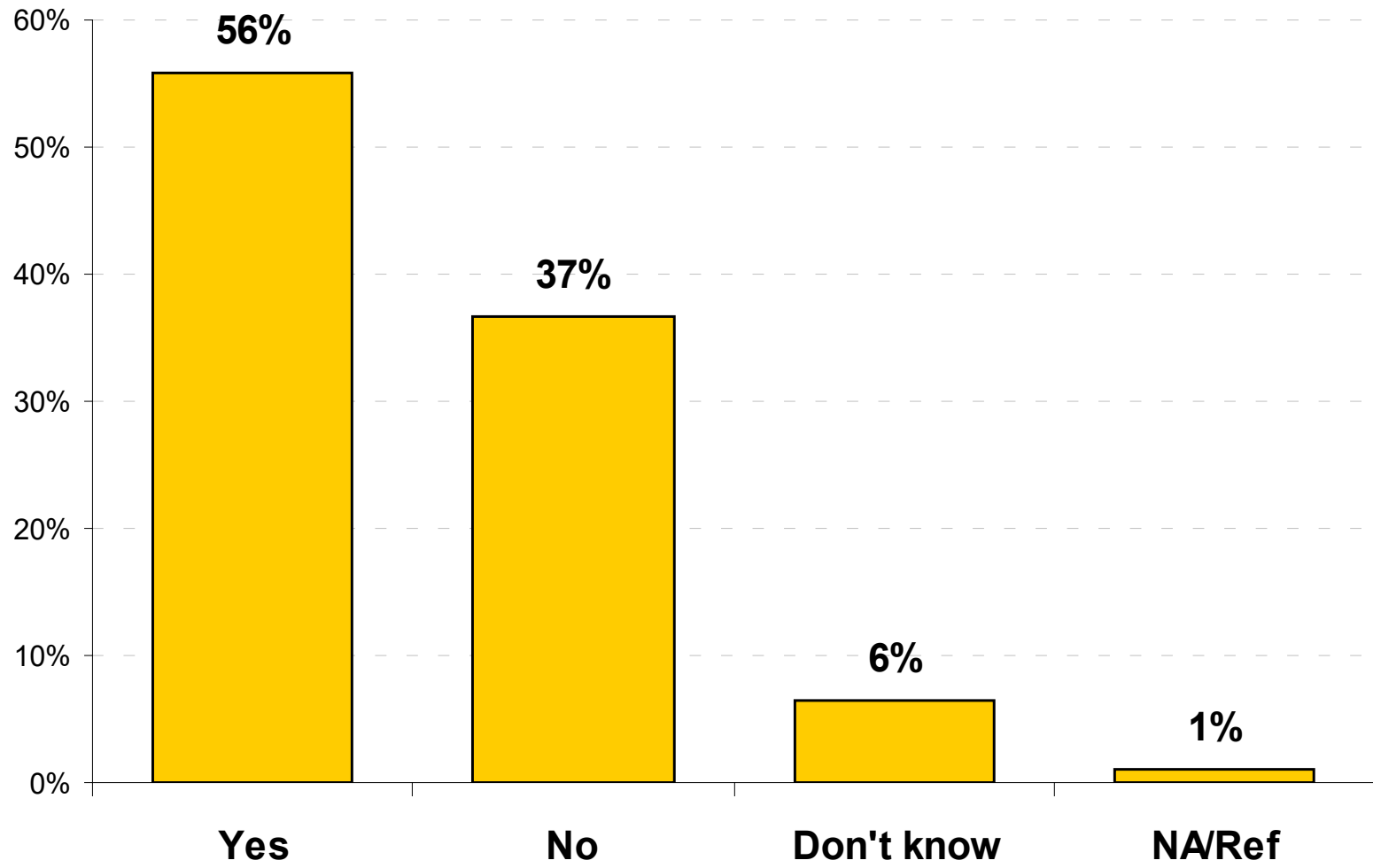




# Iowa parents strongly endorsed *increasing* the permit length from 6 to 12 months?

2009

Do you think Iowa should increase the permit length to 12 months?





# Eliminate DMV in-person driving test?

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Little risk as a temporary measure

Permanent change would likely **erode effectiveness** of the GDL system (unless replaced somehow)

The test motivates parents to ensure teens practice

They also see it as a “safety-check” on their mentoring

For more info, see [UNC-HSRC Technical Brief 4](#) (April 26, 2021)

# Questions?

## Contact:

**Robert Foss** ([rob.foss@unc.edu](mailto:rob.foss@unc.edu))

**Arthur Goodwin** ([goodwin@hsrsrc.unc.edu](mailto:goodwin@hsrsrc.unc.edu))



# NC Parents Overwhelmingly Approve Key Elements of the Original NC GDL Licensing System

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	1999	2013
12 mo. learner period	95%	97%
9 p.m. night driving limit	87%	90%