



TAX INCENTIVES AS A PUBLIC HEALTH TOOL
Policy Brief

Tax Incentives and Public Health: Injury Prevention on the Road, on the Water, and at Home

Tax incentives, in the form of tax credits, deductions or exemptions, can be effective legal interventions for advancing the public's health. A tax credit is a direct reduction in tax liability. For example, a \$1,000 tax credit saves a taxpayer \$1,000 in taxes. By contrast, a tax deduction lowers taxable income and the exact tax savings depends on one's tax bracket. A tax exemption allows a consumer to avoid paying the sales tax on a product. The power to tax is a tool available to all levels of government—federal, state, and local—and therefore can be utilized in a variety of inventive ways. This brief is one in a series of policy briefs that examine interesting tax incentives that seek to address critical public health challenges. Each brief will provide an overview of the targeted public health issue and survey the varying tax incentives adopted by the federal, state, and/or local governments.

This policy brief will examine tax incentives that encourage prevention of child and adult injuries that occur while traveling, during recreation, and at home.

Transportation Safety and Public Health

Whether an individual is commuting to work or school or enjoying recreational transportation on a bicycle, motorcycle, or on a boat out on the water, transportation is an integral part of daily life. This section of the policy brief will examine critical areas of transportation injury prevention measures and will focus on tax incentives for child restraint systems in motor vehicles, helmets and reflective clothing for bicycle safety, helmets for motorcycle safety, and life preservers or personal flotation devices (PFDs) for water safety.

Child Restraint Systems and Motor Vehicles

Motor vehicle crashes are the leading cause of death among children in the United States.¹ In 2015, 663 children aged 12 years and younger died in motor vehicle crashes, and more than 121,350 suffered from motor vehicle-related injuries in 2014.² In 2015, 35 percent of children aged 12 years and younger who were killed in motor vehicle crashes were not secured in a child safety seat or a safety belt.³ The Centers for Disease Control and Prevention (CDC) found that, in one



year, more than 618,000 children were not properly secured in a child safety seat, booster seat, or seat belt at least some of the time while present in a motor vehicle.⁴

What Qualifies as a Child Restraint System?

Child restraint systems include belt-positioning booster seats, infant car safety seats, convertible and combination seats, and travel vests.⁵ Every state requires the use of child restraint systems in motor vehicles, varying with regard to the age or size of the child required to be restrained.⁶ One of the most important aspects of road safety and utilizing a child restraint is ensuring that the booster or car seat is the appropriate safety restraint for the child based upon the child's height, weight, and age. There is a variety of information available to parents and taxpayers comparing child restraint systems based upon the child's height and weight, as well as the child's needs.⁷

State Tax Incentives for Child Restraint Systems

Several states provide tax incentives to consumers purchasing child restraint systems. Hawaii requires children four years and younger to ride in a child safety seat and children aged four to seven to ride in a child safety seat or booster.⁸ To incentivize taxpayers, Hawaii provides a tax credit of \$25 per year that applies to the purchase of a booster seat or car seat.⁹ In Florida, the sale of a child safety restraint or booster seat is exempt from the state sales tax of 6 percent.¹⁰ Similarly, in Connecticut, booster seats and child car seats for motor vehicles are exempt from a sales tax of 6.35 percent.¹¹ Connecticut also provides a tax exemption for additional bases for car seats that are used in second vehicles.¹² The tax exemption of car seats in Connecticut does not include car seats that are combined with strollers as a single unit.¹³

Intervention Effectiveness

Child restraint systems, when properly used, can have positive outcomes for public health by decreasing the number of injuries and deaths associated with motor vehicle crashes. The use of child booster seats has been shown to reduce the risk for serious injury by 45 percent for children aged four to eight, and the use of car seats for infants and toddlers has been shown to decrease the risk of death by 54 percent.¹⁴

Bicycle Safety for Children

The benefits of bicycle riding for children are numerous, including balance and coordination, and the introduction of a healthy lifestyle involving physical fitness, but these benefits do not come without associated risks. Annually, 26,000 children are treated in emergency departments for traumatic brain injuries related to bicycle riding.¹⁵ Fewer than half of children 14 years and younger wear a bicycle helmet on a routine basis—47 percent of children in states with child bicycle helmet laws and 39 percent in states with no law.¹⁶ Only 21 states and the District of Columbia require children to wear a bicycle helmet.¹⁷ Age requirements for bicycle helmets vary among the states that do have a child bicycle helmet law. For example, California and New Mexico require children 17 and younger to wear a bicycle helmet, while Louisiana and Pennsylvania only require children 11 and younger to wear a bicycle helmet.¹⁸

State Tax Incentives for Bicycle Safety

Many states provide an incentive to purchase bicycle helmets as a public health safety measure. Connecticut exempts bicycle helmets from a sales tax of 6.35 percent¹⁹ and Florida specifically exempts youth bicycle helmets from a sales tax of 6 percent.²⁰ While other states may not specifically allow an exemption for bicycle helmets, many states, such as Alabama, Connecticut, and Maryland, provide a tax incentive for general clothing during a designated tax-free holiday that taxpayers can use to buy light-colored or reflective clothing.²¹ Light-colored and reflective clothing can alert other bicyclists, drivers of motor vehicles, and pedestrians to the bicyclist's activity.



Intervention for Effectiveness

Research demonstrates that wearing a properly fitting helmet can reduce the risk of head injuries in children by 45 percent and brain injury by 33 percent.²² Additional research has shown that bicycle helmets reduce serious upper and middle facial injuries by 65 percent in comparison to non-helmet use.²³ Information on the effectiveness of light-colored clothing and reflective clothing for bicyclists is limited. One study reported that wearing reflective clothing results in a 37 percent lower risk of crash related injuries, although it is important to note that this research focused on motorcycle drivers, rather than bicyclists.²⁴ While the study did not focus on bicyclists, it nonetheless demonstrates the significance that light-colored or reflective clothing can have for those using the road while not in a car.

Motorcycle Safety

Injury and death from motorcycle crashes are a major public health concern. In 2015, there were 4,976 motorcyclists killed across the United States, showing an increase in motorcycle-related deaths by 8 percent over the prior year.²⁵ Although helmets can reduce the number of motorcycle related injuries and deaths, use requirements vary by state, with some states requiring helmet use by all riders at all times and some not requiring the use of a motorcycle helmet at all or having limited requirements. Florida allows riders over the age of 21 to operate or ride without a helmet if the rider is covered by an insurance policy providing a minimum of \$10,000 in medical benefits that would be available for medical costs associated with a motorcycle crash.²⁶ Texas waives the requirement of a helmet for all motorcycle riders over the age of 21 if the rider is covered by an applicable insurance plan or has completed a motorcycle safety course.²⁷

Motorcycle crashes and non-helmet usage impact public health by increasing the number of debilitating injuries, including traumatic brain injuries, and deaths.²⁸ In 2015, 58 percent of motorcyclists killed in states without a universal helmet law were not wearing a helmet at the time of the fatal crash, while only 8 percent were without a helmet in states with a universal helmet law.²⁹ Motorcycle crashes and non-helmet usage also contribute to economic stress on the U.S. healthcare system by consuming public health funds for emergency response, increasing the amount of unpaid medical care, increasing insurance premiums and taxes, and increasing loss of productivity.³⁰ In Maryland, uninsured, non-helmeted motorcycle crash victims cost taxpayers almost \$1.35 million annually in uncompensated care, an estimated 17 times more than helmeted victims.³¹

Recommended Legal and Tax Approaches to Motorcycle Safety

The National Highway Transportation Safety Administration (NHTSA) estimated that 1,772 motorcyclists' lives were saved in 2015 and an additional 740 more lives could have been saved with helmets.³² In addition to increasing universal helmet laws, state legislatures can provide tax incentives for motorcyclists similar to those allowed for child safety seats and bicycle helmets. In 2017, the New York legislature considered Senate Bill 951 that would have exempted motorcycle helmets from the state sales tax.³³ The bill failed but stands as an example of a potential new policy approach to motorcycle safety for states to consider—using tax incentives regardless of whether helmets are required.

Water Safety

Drowning is ranked fifth among the leading causes of unintentional death in the United States.³⁴ According to the CDC, 332 people died annually from 2005 to 2014 from boating-related incidents.³⁵ Failure to wear a proper personal flotation device (PFD) is a significant contributing factor to these deaths.³⁶ According to the U.S. Coast Guard, an estimated three-fourths of all fatal boating accident victims drowned and 88 percent of those victims were reported as not wearing a PFD.³⁷

Recommended Legal and Tax Approaches to Safety on the Water

Potentially half of all boating deaths could be prevented with the proper use of a PFD.³⁸ Some states provide tax exemption for clothing worn for general use, and others provide such tax incentives during a specified period of time (e.g.,



back-to-school), but these tax exemptions generally do not apply to sport or recreational wear. PFDs are categorized as sport or recreational clothing and are therefore not exempt from state sales tax. For example, the states of Alabama, Florida, and New Jersey specifically list PFDs as a consumer good that is not exempted from state taxes during the tax-free clothing and school supplies period.³⁹ Connecticut allows for the exemption of PFDs designated as safety apparel used by an employee for protection during the course of his or her employment.⁴⁰ States have the opportunity to provide a safety or recreational tax incentive for PFDs similar to Connecticut's occupational tax incentives.

Fire Safety in the Home

Fire safety in the home is important to public health and safety. Unintentional fires are a leading cause of home injury and death, with 74.5 percent of all fire deaths occurring in the home.⁴¹ In 2016, nationally, 2,735 people were killed and 10,750 people were injured during home fires that caused an estimated \$10.6 billion in home property loss.⁴² Fire safety equipment can be effective in decreasing fatalities and injuries in home fires.

What Qualifies as Fire Safety Equipment?

Any equipment used to detect, warn, abate, or extinguish fire is considered fire safety equipment. Examples include smoke alarms, smoke detectors, fire alarms, fire extinguishers, and heat-activated sprinkler systems.

Smoke Detectors

A working smoke detector will more than double one's chances of surviving a fire.⁴³ Working smoke detectors greatly decrease the likelihood of fatal injury in home fire incidents by providing people with early warning and giving them additional time to escape. Almost three of every five (57 percent) home fire deaths resulted from fires in homes with no working smoke alarms; two in five (39 percent) deaths resulted from fires in homes with no smoke alarms at all, and one in five (18 percent) from fires in homes in which smoke alarms were present but failed to operate.⁴⁴

Fire Extinguishers

Fire extinguishers are effective at stopping a fire from becoming injurious or deadly. According to the National Association of Fire Equipment Distributors, portable fire extinguishers were effective in extinguishing fires 95 percent of the time.⁴⁵ In many instances, the extinguisher was successful in controlling the fire until the arrival of trained firefighting personnel, even if the fire extinguisher could not extinguish the fire completely.⁴⁶

State Tax Incentives for Fire Safety Equipment

Despite the effectiveness of fire safety equipment in preventing injury and death in home fires, few states exempt this equipment from state sales tax. Those states that do exempt fire safety equipment do so as part of a tax incentive for emergency preparedness purposes, typically in hurricane-prone states. For example, Texas provides a limited period of time during which emergency preparedness supplies, including smoke detectors and fire extinguishers, costing less than \$75, can be purchased tax free.⁴⁷ Likewise, Virginia exempts from sales tax hurricane preparedness items, including smoke detectors and fire extinguishers.⁴⁸

Several states have considered legislation to provide tax incentives for the purchase of fire safety equipment for the home; none have passed. The 2016 New Jersey legislature considered a bill to exempt fire safety equipment, including smoke detectors and fire extinguishers, from sales tax.⁴⁹ The bill failed. The New York State Assembly is currently considering Averyana's law, which would provide a tax credit for the purchase and installation of smoke detectors for home safety. The bill failed in 2013⁵⁰ and remains in the Senate Investigations and Government Operations Committee in the 2017-18 session.⁵¹

At the federal level, Congress recently passed the Tax Cuts and Jobs Act, P.L. 115-97, which allows businesses to deduct the full purchase price of fire protection and alarm systems during the tax year.⁵² This law expanded existing deductions, incentivizing businesses to purchase and install such equipment; but no similar deduction is available to individual taxpayers who purchase fire safety equipment for their homes.

Conclusion

Transportation safety and home fire safety have a considerable impact on public health. Tax incentives for child restraint systems, bicycle helmets, and reflective clothing promote the use of these safety products that benefit individuals and the public. Regardless of whether a state mandates motorcycle helmet use by some, all, or no riders, a tax exemption for motorcycle helmets could encourage helmet use, reducing injury and death. To enhance safety on the water, states can exempt water safety equipment from sales taxes, encouraging the purchase and use of products that will decrease the number of boat- and watercraft-related drownings. To improve fire safety, states can provide tax incentives for the purchase of fire safety equipment, including smoke detectors and fire extinguishers, to be used in the home.

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