

COMMITTEE ON LEGISLATIVE RESEARCH
OVERSIGHT DIVISION

FISCAL NOTE

L.R. No.: 4514-01
Bill No.: HB 1389
Subject: Motor Vehicles; Roads and Highways
Type: Original
Date: January 8, 2018

Bill Summary: This proposal excludes autocycle operators from protective headgear requirements.

FISCAL SUMMARY

ESTIMATED NET EFFECT ON GENERAL REVENUE FUND			
FUND AFFECTED	FY 2019	FY 2020	FY 2021
Total Estimated Net Effect on General Revenue	\$0	\$0	\$0

ESTIMATED NET EFFECT ON OTHER STATE FUNDS			
FUND AFFECTED	FY 2019	FY 2020	FY 2021
Total Estimated Net Effect on <u>Other</u> State Funds	\$0	\$0	\$0

Numbers within parentheses: () indicate costs or losses.

This fiscal note contains 8 pages.

ESTIMATED NET EFFECT ON FEDERAL FUNDS			
FUND AFFECTED	FY 2019	FY 2020	FY 2021
Total Estimated Net Effect on <u>All</u> Federal Funds	\$0	\$0	\$0

ESTIMATED NET EFFECT ON FULL TIME EQUIVALENT (FTE)			
FUND AFFECTED	FY 2019	FY 2020	FY 2021
Total Estimated Net Effect on FTE	0	0	0

☐ Estimated Net Effect (expenditures or reduced revenues) expected to exceed \$100,000 in any of the three fiscal years after implementation of the act.

ESTIMATED NET EFFECT ON LOCAL FUNDS			
FUND AFFECTED	FY 2019	FY 2020	FY 2021
Local Government	\$0	\$0	\$0

FISCAL ANALYSIS

ASSUMPTION

Officials from the **Department of Transportation, Department of Revenue and Department of Public Safety - Missouri Highway Patrol** each assume the proposal will have no fiscal impact on their respective organizations.

Officials from the **Department of Health and Senior Services** assume changing the current legislation to no longer require individuals operating or riding in autocycles to wear protective headgear will increase the number of individuals incurring a traumatic brain injury, resulting in an increase in participants requesting services through the following programs: Adult Brain Injury (ABI), Children and Youth with Special Health Care Needs (CYSHCN), Healthy Children and Youth (HCY), and Medically Fragile Adult Waiver (MFAW).

The ABI program serves participants age 21 through 64 and the average annual cost per participant is \$3,737. Both the CYSHCN and HCY programs serve participants under the age of 21, with the average annual cost of \$730.05 per CYSHCN participant and \$24,970.82 per HCY participant. The MFAW program serves individuals 21 and older with an annual cost per participant of \$99,448.46. Also both HCY and MFAW are partially federally funded at 65.203 percent federal and 34.797 percent state Medicaid match (FY 2019 FMAP rate).

While the cost per participant is known, the lack of data specific to autocycle crash injuries and the use of protective headgear while operating or riding in an autocycle is unknown, resulting in an unknown negative fiscal impact to these Division of Community and Public Health programs.

Officials from the **Department of Social Services** assume there are two categories of individuals who could sustain severe traumatic brain injuries (TBI) which could result in increased MO HealthNet expenditures.

- 1) Individuals who are privately insured at the time of the accident, but sustain severe TBI and are unable to meet the higher premiums charged by private health insurance plans or are forced to spend down resources and become eligible for Medicaid because of their disability.
- 2) Individuals who are Medicaid recipients at the time of the accident and sustain severe TBI.

There is currently little information on the utilization of autocycles. In order to estimate the number of individuals who are Medicaid recipients at the time of an autocycle accident that also sustain TBI, Missouri Healthnet Division (MHD) used information provided by the Missouri State Highway Patrol on non-fatal motorcycle accidents. The Missouri State Highway Patrol reported 1,979 non-fatal injured persons resulting from motorcycle crashes in 2014.

ASSUMPTION (continued)

For the purposes of this fiscal note MHD assumes 14% of the 1,979 are related to persons on autocycles or 277 injured persons. MHD assumes 95% of the injured persons were age 18 or older ($99 \times 95\% = 94$) and all individuals were meeting the current state law requiring helmet use. Based on crash statistics from the National Highway Transportation and Safety Administration, 4.7% of helmeted motorcyclists involved in a crash suffered from severe TBI whereas 7.3% of unhelmeted motorcyclists suffered from severe TBI. Therefore, MHD assumes 6.8 persons sustained severe TBI injuries in 2014 (most current data available) as a result of crashes while wearing helmets and riding autocycles. The number of autocyclists is assumed to be a much lower percentage of the driving population than motorcyclists. Without specific information on autocyclists, MHD assumes the number of autocyclists is 14% of the number of motorcyclists. Therefore, it is estimated that 6.8 individuals will sustain severe TBI as a result of autocycle accidents with no helmets.

1) MHD assumes that of these 6.8 individuals, 30% will ultimately spend down their resources and qualify for Medicaid, and will be classified as totally and permanently disabled (PTD). MHD assumes that some individuals would qualify more quickly than others. MHD assumes that of those individuals with new TBIs, 15% would qualify within the first year, 22.5% would qualify within the second year, and 30% would ultimately qualify within three years. Based on these assumptions, MHD assumes 1 new PTD in FY 2019, 2.6 in FY 2020, and 4.6 in FY 2021. In addition, MHD assumes that TBIs will be life-long injuries; therefore, the number of individuals being served under Medicaid will continue to compound.

2) MHD further assumes that of the 6.8 individuals annually sustaining severe TBI as a result of autocycle TBI, 8.54% (based on current Medicaid recipients ages 18-64 divided by the general Missouri population ages 18-64) will be Medicaid recipients at the time of the accident, or .6 individuals.

Based on a 2013 report issued by the Arkansas Spinal Cord Commission, the average acute care Medicaid costs for TBI was \$15,783 (average from 2007-2012). This initial cost was inflated by a three year average Hospital Market Basket Trend from SFY 2010 through SFY 2017. Therefore, the initial hospitalization cost is estimated to be \$20,182 per person in FY 2019.

The one-time acute care costs are in addition to the annual cost to care for a person with TBI. The average cost for a custodial parent (based on FY 2017 expenditures) is \$5,732. MHD assumes annual expenditures will increase to the PTD level for an annual increase of \$10,047 per person sustaining a TBI. This amount is trended annually by 3.8%. MHD estimates the annual costs for caring for an individual with TBI will be \$2,009 ($\$10,047 \times .2$ individuals each year).

ASSUMPTION (continued)

The total annual cost for individuals who are Medicaid recipients at the time of the accident is \$6,045 (\$4,036 + \$2,009). MHD assumes that TBIs will be life-long injuries; therefore, the number of individuals being served under Medicaid will continue to compound.

Officials from the **Department of Mental Health (DMH)** assume this proposal would allow that a person operating or riding in an autocycle shall not be required to wear protective headgear. The term "autocycle" is defined in the proposed legislation as a three-wheeled motor vehicle which the drivers and passengers ride in a partially or completely enclosed nonstraddle seating area, that is designed to be controlled with a steering wheels and pedals.

Currently, the Division of Developmental Disability (DD) waiver programs eligibility requirements mandate that a diagnosis of developmental disability be assigned prior to the age of 22 for inclusion into a waiver program, except for an intellectual disability, which must be assigned prior to the age of 18. This proposal would allow for expansion of the number of eligible DD Medicaid Waiver participants, in that riders 16 to 21 years of age could sustain a traumatic brain injury (TBI) while operating or riding in an autocycle without protective headgear, thereby potentially qualifying them for DD waiver services.

DD estimates an average cost per day of \$380 (\$138,700 / yr.) for residential services. Utilizing the methodology below, it is estimated that an increased cost of \$1,254,838 per year could occur. This estimate could also rise and fall based on the federal FMAP for DMH Medicaid waiver services.

Data from the Missouri State Highway Patrol, United States Census Bureau, Centers for Disease Control, and fiscal data from the Division of Developmental Disabilities were utilized to arrive at an estimated fiscal impact.

For this analysis, the DMH assumes riders sixteen to twenty one years of age may elect to not wear protective headgear given Section 304.005.2's language.

Data from the Missouri State Highway Patrol includes three wheel vehicles but not mopeds or all-terrain vehicles (ATVs). It appears the statistics used do include three wheel vehicles and therefore, it is assumed autocycle is included in this data.

Crash Rates

The Missouri State Highway Patrol reports 1,683 personal injury motorcycle crashes in 2005, injuring 1,978 people. By 2012, those figures had risen to 2,065 and 2,404 respectively (Missouri State Highway Patrol, 2014).

ASSUMPTION (continued)

The State's eight-year average for motorcycle crashes between 2005 and 2012 is 1,854 and 2,165 for persons injured (Missouri State Highway Patrol, 2014). In 2011 and 2012, the number of crashes increased 9% over each preceding year.

Based on available data, projections indicate Missouri will have experienced an average of 2,148 motorcycle crash injuries per year between 2016 and 2020.

State Demographics

The United States Census Bureau estimates that in 2016 the percentage of persons aged 16 to 21 years old residing in Missouri comprised 7.9% of the total state population, or 481,254 persons out of 6,093,000 (US Census Bureau, release date June 2017).

Head Injury Rate of Occurrence

The Centers for Disease Control reports an incidence rate for head injury requiring hospitalization of 81.2 per 100,000 people aged 16 to 22 (Centers for Disease Control, 2014). Comparing this data to the census data previously discussed yields an estimate of 391 persons aged 16 to 21 per year in Missouri who will experience a head injury requiring hospitalization (persons aged 16 to 21 in MO / CDC unit of measurement x CDC incidence rate).

DD Community Placements & Cost Estimate

In 2017, the Division of DD admitted 66 individuals with head injuries.

DD estimates an average cost per day of \$380 (\$138,700/yr.) for residential services. The state share of this cost in FY 2019 is \$48,263 (\$138,700 x 34.797% state share = \$48,263).

Estimated Annual Fiscal Impact-

Assuming a 15% rate of TBI incidence due to autocycle crashes for each year between 2018 and 2022 for individuals aged 16 to 21 in Missouri, a total of 130 additional individuals or 26 people per year could become eligible for DD waiver services.

Utilizing the Division of DD's cost estimates for FY 2019, this represents an annual increased cost to the DMH of \$1,254,838 of general revenue per year (\$48,263 x 26 = \$1,254,838).

Oversight assumes some people 18 and over could choose not to wear protective headgear as a result of this proposal. Accordingly, there may be an increase in injuries or the severity of injuries to autocyclists not wearing protective headgear which may **indirectly** result in increased costs to the state. Oversight assumes no **direct** fiscal impact to state and local governments from the protective headgear exemption.

ASSUMPTION (continued)

Oversight also assumes the Department of Health and Senior Services and the Department of Mental Health will request increased appropriations depending on the actual increases in TBI paid for by the state.

<u>FISCAL IMPACT - State Government</u>	FY 2019 (10 Mo.)	FY 2020	FY 2021
	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>

<u>FISCAL IMPACT - Local Government</u>	FY 2019 (10 Mo.)	FY 2020	FY 2021
	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>

FISCAL IMPACT - Small Business

No direct fiscal impact to small businesses would be expected as a result of this proposal.

FISCAL DESCRIPTION

The proposed legislation appears to have no direct fiscal impact.

This legislation is not federally mandated, would not duplicate any other program and would not require additional capital improvements or rental space.

SOURCES OF INFORMATION

Department of Transportation
Department of Revenue
Department of Public Safety - Missouri Highway Patrol
Department of Health and Senior Services
Department of Social Services
Department of Mental Health

Ross Strope

A handwritten signature in black ink, appearing to read "Ross Strope", with a stylized, cursive script.

Acting Director
January 8, 2018