

COMMITTEE ON LEGISLATIVE RESEARCH  
OVERSIGHT DIVISION

**FISCAL NOTE**

L.R. No.: 4039-01  
Bill No.: HB 1663  
Subject: Motor Vehicles; Transportation  
Type: Original  
Date: December 30, 2015

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Bill Summary: This proposal prohibits any person under the age of 18 from operating a motorcycle or motortricycle without protective headgear.

**FISCAL SUMMARY**

<b>ESTIMATED NET EFFECT ON GENERAL REVENUE FUND</b>			
<b>FUND AFFECTED</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>
<b>Total Estimated Net Effect on General Revenue</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

<b>ESTIMATED NET EFFECT ON OTHER STATE FUNDS</b>			
<b>FUND AFFECTED</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>
<b>Total Estimated Net Effect on <u>Other</u> State Funds</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

Numbers within parentheses: ( ) indicate costs or losses.

This fiscal note contains 8 pages.

<b>ESTIMATED NET EFFECT ON FEDERAL FUNDS</b>			
<b>FUND AFFECTED</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>
<b>Total Estimated Net Effect on <u>All</u> Federal Funds</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

<b>ESTIMATED NET EFFECT ON FULL TIME EQUIVALENT (FTE)</b>			
<b>FUND AFFECTED</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>
<b>Total Estimated Net Effect on FTE</b>	<b>0</b>	<b>0</b>	<b>0</b>

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

<b>ESTIMATED NET EFFECT ON LOCAL FUNDS</b>			
<b>FUND AFFECTED</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>
<b>Local Government</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

## FISCAL ANALYSIS

### ASSUMPTION

Officials from the **Department of Health and Senior Services (DHSS)** assume the proposed legislation specifies that only individuals under eighteen years of age must wear protective headgear at all times when operating or riding as a passenger on any motorcycle or motortricycle.

DHSS officials state changing the helmet law to only require any person under eighteen years of age to wear protective headgear at all times when operating or riding as a passenger on any motorcycle or motortricycle will increase the number of individuals incurring a traumatic brain injury, thus there will be an increase in participants requesting services through the following Special Health Service (SHS) programs: Adult Brain Injury (ABI), Children and Youth with Special Health Care Needs (CYSHCN), Healthy Children and Youth (HCY), and the Medically Fragile Adult Waiver (MFAW).

Based on the most recently published motorcycle crash statistics by the Missouri State Highway Patrol, there were 1,701 motorcycle crashes that resulted in personal injuries in 2014. Of these 1,701 motorcycle crashes, based on population estimates it is estimated that 10 percent of those crashes would involve persons age 18 to 20 and 80 percent would involve persons age 21 and older. According to a National Occupant Protection Use Survey, it is also estimated that half of those would not be wearing a helmet if this proposed legislation is passed resulting in 85 (age 18-20) and 680 (age 21 and over) individuals involved in a motorcycle crash while not wearing a helmet ( $1,701 \times .80 \times .50 = 680$ ). Based on assessment of other states, if 50 percent of those individuals experience a traumatic brain injury (TBI), and 50 percent of those with a TBI are eligible for SHS programs, there would be an additional 21 new participants dually enrolled in CYSHCN and HCY ( $85 \times .50 \times .50 = 21$ ), with 50 percent or (11 participants) of the additional HCY enrollments aging out into the MFAW program in subsequent years ( $21 \times .50 = 11$ ), and 170 new enrollments to the ABI Program per year ( $680 \times .50 \times .50 = 170$ ).

The average cost per participant for CYSHCN is \$864.79 per year. The total needed for CYSHCN services would be \$18,160.59 ( $\$864.79 \times 21$  participants).

Both HCY and MFAW are partially federally funded at 63.228 percent federal and 36.772 percent state Medicaid match. The average cost per participant to provide services through the HCY program is \$4,313 per year. The total needed for HCY services would be \$90,573 ( $\$4,313 \times 21$  participants), funded as \$57,468.57 by federal and \$33,104.43 by the state.

ASSUMPTION (continued)

The average cost per participant to provide services through the MFAW program is \$106,156 per year. The total needed for services through the MFAW program would be \$1,167,716 (11 MFAW participants x \$106,156), funded as \$740,915.80 by federal and \$426,800.20 by the state.

The current average cost per participant to provide rehabilitation services through the ABI Program is \$4,236 per year. The total needed for rehabilitation services would be \$720,120 (\$4,236 x 170 participants). The increase in participants would also require the ABI Program to add four additional service coordinators, based on the fact that currently there is an average of 40 participants per service coordinator caseload. Service coordinators provide case management for participants enrolled in the ABI program and are contracted through local public health agencies (LPHA) at a cost of \$61,800 per service coordinator. The total needed for all four additional service coordinators would be \$247,200 (\$61,800 x 4 service coordinators).

Participation in the ABI Program is subject to available funding and without additional funding any potential new participants will be added to a waiting list for rehabilitation services. In fiscal year 2015 there was an average of 73 Missourians on the ABI Program wait list, with a wait time of over 187 days before rehabilitation services are started through the program. So far in fiscal year 2016 there are currently 89 Missourians on the ABI Program wait list, with a wait time of over 253 days. It is clear that additional program participants would result in the ABI Program requesting additional funding for the program.

Officials from the **Department of Social Services** assume this proposal prohibits any person under the age of 18 from operating a motorcycle or motortricycle without protective headgear.

Officials from the Department of Health and Senior Services (DHSS) and the Department of Mental Health (DMH) stated that their response includes costs that are covered under their respective budgets. Therefore, only those medical costs that are in the Department of Social Services (DSS) budget are reported here.

MHD estimates there will be 20 additional head-injury cases each year if the helmet law is repealed for people age 18 and over. It is estimated that 2 of these cases will be uninsured and require initial hospital care and on-going medical expenses.

The annual cost estimate is based on initial inpatient hospital charges and on-going medical costs. It is assumed the hospital will be reimbursed for the uninsured care by the MO HealthNet program.

ASSUMPTION (continued)

The DHSS provided data regarding the initial hospital charges for un-helmeted and helmeted riders. In 2003, the average initial cost for an un-helmeted rider was \$66,850 and \$55,234 for a helmeted rider. The cost was \$11,616 per person higher for an injured un-helmeted rider than for a helmeted rider in 2003. This initial cost was inflated by 5.03% annually from 2003 to arrive at an estimate for 2017 through 2019. This inflationary factor is an average based on Healthcare Cost Review for Hospitals data from SFY03 through SFY15. Therefore, the initial cost is estimated to be \$23,091 in FY17.

The average annual cost for on-going medical costs is based on the first three months of SFY16 (July 2015 through September 2015). Nursing facility, hospital, physician, dental, pharmacy, Medicare Part D co-pays, home health and rehab/specialty services are in the on-going cost calculation. The average annual on-going cost was inflated by 3%. The on-going cost per person for one full year is \$16,092 (\$1,341 x 12 months).

SFY17

Assumes two un-helmeted individuals will be injured due to a motorcycle accident and be eligible or become eligible for MO HealthNet services. The initial hospitalization will be \$23,091 per person ( $\$23,091 \times 2 = \$46,182$ ). The on-going medical costs will be \$16,092 per person for the year. Total annual cost to MHD is \$78,366. For fiscal note purposes, this assumes a 10-month cost of \$73,002 (\$26,844 GR).

SFY18

Assuming both FY17 injured people survive, the estimated cost for FY18 for these people will be a full year (12 month) on-going medical costs but will not include the initial hospitalization costs. In addition, there will be the initial hospitalization cost and on-going medical costs for the two new individuals estimated to be injured in FY17. Costs are inflated by 5.03% annually. Total cost is \$116,108 (\$42,695 GR).

SFY19

Assuming all FY17 and all FY18 injured people survive, the estimated cost for FY19 for these people will be a full year (12 month) on-going medical cost but will not include the initial hospitalization costs. In addition, there will be the initial hospitalization cost and on-going medical costs for the two new people estimated to be injured in FY 19. Costs are inflated by 5.03% annually. Total cost is \$157,450 (\$57,898 GR).

### ASSUMPTION (continued)

Officials from the **Department of Mental Health** assume this proposal removes the requirement to use protective headgear when operating a motorcycle or motor-tricycle for any individual 18 years of age or older. Currently 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.

This proposal could allow for expansion of the number of eligible DD Medicaid Waiver participants, in that riders 18 to 21 years of age could sustain a traumatic brain injury (TBI) while riding without protective headgear, thereby potentially qualifying them for DD waiver services, as well as Division of Behavioral Health services due to the clinical nature and symptoms of TBI.

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.

#### Crash Rates

The MO 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 (MO State Highway Patrol, 2014). 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 2013 the percentage of persons aged 18 to 21 years old residing in Missouri comprised 4% of the total state population, or 336,435 persons out of 6,044,171 (US Census Bureau, 2014).

#### Head Injury Rate of Occurrence

The federal Centers for Disease Control reports an annual 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 273 persons aged 16 to 22 per year in Missouri who will experience a head injury requiring hospitalization (persons aged 18 to 21 in MO / CDC unit of measurement x CDC incidence rate)

ASSUMPTION (continued)

DD Community Placements & Cost Estimate

In 2014, the Division of DD admitted 64 individuals with head injuries.

DD estimates an average cost per day of \$315 (\$114,975/yr.) for community placement services. The state share of this cost in FY 2016 is \$42,169 (\$114,975 x 36.677% state share = \$42,169).

Estimated Annual Fiscal Impact

Assuming this bill becomes law in August 2016, and a 15% rate of TBI incidence for motorcycle crashes each year between 2016 and 2020 for individuals aged 18 to 21 in Missouri, a total of 205 additional individuals or 41 people per year could become eligible for DD waiver services and DBH services.

Utilizing the Division of DD's cost estimates for FY 2016, this represents an increased annual cost to the DMH of \$1,728,929 of general revenue (\$ 42,169 x 41 = \$1,728,929).

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

**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 motorcyclists 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.

<u>FISCAL IMPACT - State Government</u>	FY 2017 (10 Mo.)	FY 2018	FY 2019
	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
<u>FISCAL IMPACT - Local Government</u>	FY 2017 (10 Mo.)	FY 2018	FY 2019
	<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.

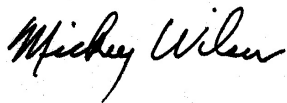
FISCAL DESCRIPTION

Currently, an individual operating or riding as a passenger on any motorcycle or motortricycle upon any state highway must wear protective headgear when the vehicle is in motion. This proposal modifies the requirement to individuals under 18 years of age.

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 Revenue  
Department of Public Safety  
    Missouri Highway Patrol  
Department of Health and Senior Services  
Department of Mental Health  
Department of Social Services  
Office of State Courts Administrator



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