

COMMITTEE ON LEGISLATIVE RESEARCH  
OVERSIGHT DIVISION

**FISCAL NOTE**

L.R. No.: 1257-02  
Bill No.: Perfected HB 523  
Subject: Transportation; Motor Vehicles; Insurance - Automobile  
Type: Original  
Date: April 8, 2015

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Bill Summary: This proposal exempts motorcyclists 21 years of age or older from wearing a helmet when operating a motorcycle or motortricycle if they have the appropriate health insurance coverage.

**FISCAL SUMMARY**

<b>ESTIMATED NET EFFECT ON GENERAL REVENUE FUND</b>			
FUND AFFECTED	FY 2016	FY 2017	FY 2018
<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>			
FUND AFFECTED	FY 2016	FY 2017	FY 2018
<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 2016</b>	<b>FY 2017</b>	<b>FY 2018</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 2016</b>	<b>FY 2017</b>	<b>FY 2018</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 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>
<b>Local Government</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

## FISCAL ANALYSIS

### ASSUMPTION

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

Officials from the **Department of Health and Senior Services (DHSS)** assume the proposed bill exempts motorcyclists age 21 and older from wearing protective headgear when operating a motorcycle or a motortricycle if they have met the requirement of having proof of financial responsibility by means of insurance that includes personal injury protection of at least \$50,000.

DHSS officials state changing the helmet law to allow persons 21 years of age or older to operate or ride as a passenger on any motorcycle or motortricycle without a helmet will increase the number of adults incurring a traumatic brain injury, thus there will be an increase in participants requesting services through the Adult Brain Injury (ABI) Program.

Based on the most recently published motorcycle crash statistics by the Missouri State Highway Patrol, there were 2,065 motorcycle crashes that resulted in personal injuries in 2012. Of these 2,065 motorcycle crashes, based on population estimates it is estimated that 80 percent of those crashes 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 826 individuals involved in a motorcycle crash while not wearing a helmet ( $2,065 \times .80 \times .50 = 826$ ). 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 the ABI program, there would be an additional 207 new enrollments to the ABI Program per year ( $826 \times .50 \times .50$ ).

The current average cost per participant to provide rehabilitation services through the ABI Program is \$5,200 per year. The total needed for rehabilitation services would be \$1,076,400 ( $\$5,200 \times 207$  participants). The increase in participants would also require the ABI Program to add five 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.

ASSUMPTION (continued)

The total needed for all five additional service coordinators would be \$309,000 (\$61,800 x 5 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. Currently, there are 56 Missourians on the ABI Program wait list, with a wait time of over 259 days before rehabilitation services are started through the program. It is clear that additional program participants would result in the ABI Program requesting additional funding for the program. The total needed to cover the costs for the additional participants would be at least \$1,385,400 per year.

Officials from the **Department of Social Services - MO HealthNet Division (MHD)** state currently, all users of motorcycles and motortricycles are required to wear protective headgear when the vehicle is in motion. This bill specifies that this provision will not apply to an individual 21 years of age or older, unless he or she has only been issued an instruction permit, provided that they maintain proof of financial responsibility and at least \$50,000 of personal medical insurance.

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 21 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.

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 5.09% annually from 2003 to arrive at an estimate for 2016 through 2018. This inflationary factor is an average based on Healthcare Cost Review for Hospitals data from FY '03 through FY '15. Therefore, the initial cost is estimated to be \$22,149 in FY '16.

ASSUMPTION (continued)

The average annual cost for on-going medical costs is based on the first three months of FY `15 (July 2014 through September 2014). 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 1.9%. The on-going cost per person for one full year is \$14,364 (\$1,197 x 12 months).

FY `16

MHD 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 \$22,149 per person ( $\$22,149 \times 2 = \$44,298$ ). The on-going medical costs will be \$14,364 per person for the year. Total annual cost to MHD is \$73,026. For fiscal note purposes, assume a 10-month cost of \$68,238 (\$25,028 GR).

FY `17

MHD assumes both FY `16 injured people survive, the estimated cost for FY `17 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 FY `17. Costs are inflated by 5.09% annually. Total cost is \$106,932 (\$39,219 GR).

FY `18

MHD assumes all FY `16 and all FY `17 injured people survive, the estimated cost for FY `18 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 `18. Costs are inflated by 5.09% annually. Total cost \$144,100 (\$52,852 GR).

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.

Officials from the **Department of Mental Health (DMH)** assumes riders 21 years of age would be in compliance with section 302.026.1 at the time of a motorcycle crash resulting in TBI, and would carry the proposed minimum \$50,000 of first-party insurance coverage. Given the nature of treating TBI in a hospital setting and current inpatient healthcare costs, we assume this amount of coverage would serve to defray an individual's initial medical bills, and would therefore not serve as a mitigating factor for placement in a DMH waiver program.

## ASSUMPTION (continued)

### 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.

DMH officials state based on available data, projections indicate Missouri will have experienced an average of 2,120 motorcycle crash injuries per year between 2015 and 2019.

### State Demographics

The United States Census Bureau estimates that in 2013 the percentage of persons aged 21 years old residing in Missouri comprised 1% of the total state population, or 89,781 persons out of 6,044,171 (US Census Bureau, 2014).

### Head Injury Rate of Occurrence

The federal Centers for Disease Control (CDC) 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 73 persons aged 16 to 22 per year in Missouri who will experience a head injury requiring hospitalization (persons aged 21 in MO / CDC unit of measurement x CDC incidence rate)

### Developmental Disabilities (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 \$300 (\$109,500/yr.) for community placement services. The state share of that cost in FY 2015 is \$40,411 ( $\$109,500 \times 36.905\%$  state share = \$40,411).

### Estimated Annual Fiscal Impact

Assuming this bill becomes law in August 2015, and a 15% rate of TBI incidence for motorcycle crashes each year between 2015 and 2019 for individuals aged 21 in Missouri, a total of 15 additional individuals or 3 people per year could become eligible for DD waiver services and Department of Behavior Health services.

Utilizing the Division of DD's cost estimates for FY 2015, this represents an increased cost to the DMH of \$121,233 of general revenue per year ( $\$40,411 \times 3 = \$121,233$ ).

ASSUMPTION (continued)

**Oversight** assumes some people 21 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 2016 (10 Mo.)	FY 2017	FY 2018
	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>

<u>FISCAL IMPACT - Local Government</u>	FY 2016 (10 Mo.)	FY 2017	FY 2018
	<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 Revenue  
Department of Insurance, Financial Institutions and Professional Registration  
Department of Public Safety  
    Missouri Highway Patrol  
Department of Corrections  
Department of Transportation  
Office of the State Courts Administrator  
Department of Social Services  
Department of Health and Senior Services  
Department of Mental Health



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