

COMMITTEE ON LEGISLATIVE RESEARCH  
OVERSIGHT DIVISION

**FISCAL NOTE**

L.R. No.: 1189-02  
Bill No.: HB 576  
Subject: Motor Vehicles; Insurance - Health  
Type: Original  
Date: February 6, 2017

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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 2018	FY 2019	FY 2020
<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 2018	FY 2019	FY 2020
<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 11 pages.

<b>ESTIMATED NET EFFECT ON FEDERAL FUNDS</b>			
<b>FUND AFFECTED</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</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 2018</b>	<b>FY 2019</b>	<b>FY 2020</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 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>
<b>Local Government</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

## FISCAL ANALYSIS

### ASSUMPTION

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 proposal clarifies that operators, riders, or passengers under the age of 21 are still required to wear protective headgear. It further requires any operator age 21 or older to wear protective headgear if they have been issued an instruction permit.

This proposal also prohibits law enforcement from stopping, inspecting, or detaining a person age 21 or older for failing to wear protective headgear while operating or riding as a passenger on a moving motorcycle or motortricycle.

Section 302.026 is added to authorize individuals age 21 or older to operate a motorcycle or motortricycle without wearing protective headgear if he/she can show proof of the following:

- 1) "first-party insurance";
- 2) maintained proof of financial responsibility;
- 3) coverage by a health insurance policy, person injury protections insurance policy, or rider, or other form of insurance providing first-party medical benefits of at least \$100,000.

Because MO HealthNet provides health plan services and there is no specific exemption for Medicaid as a form of insurance, MHD assumes MO HealthNet recipients meet the requirements as specified in the proposal to operate a motorcycle without a helmet; whereas, uninsured individuals would be prohibited from riding a motorcycle un-helmeted. There are two categories of individuals who would sustain severe traumatic brain injuries (TBI) and 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.

The Missouri State Highway Patrol reported 1,979 non-fatal injured persons resulting from motorcycle crashes in 2014. MHD assumes 90% of the injured persons were age 21 or older ( $1979 * 90\% = 1,781.1$ ) and all individuals were meeting the current state law requiring helmet use.

ASSUMPTION (continued)

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 un-helmeted motorcyclists suffered from severe TBI. Therefore, MHD assumes 83.7 persons sustained severe TBI injuries in 2014 as a result of motorcycle crashes while wearing helmets ( $1,781.1 * 4.7\%$ ). This number would increase to 130 individuals with severe TBI injuries if helmets were no longer required under state law ( $1,781.1 * 7.3\%$ ). Therefore, it is estimated that 46.3 individuals will sustain severe TBI as a result of this legislation ( $130 - 83.7$ ).

MHD assumes that of these 46.3 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; therefore, MHD assumes that of those individuals with TBIs occurring in the first year after implementation of this legislation, 15% would qualify for Medicaid; 22.5% would qualify within the second year, and 30% would ultimately qualify within three years. Based on these assumptions, MHD assumes 6.9 new P.D. in FY 2018, 17.4 in FY 2019, and 31.3 in FY 2020.

Based on FY 2016 annual Medicaid expenditures for a recipient with PTD trended annually by a 4.1% inflationary factor, MHD estimates an annual first year cost of \$16,885.48 per person for a total first year cost of \$116,510 in FY 2018.

MHD further assumes that of the 46.3 individuals annually sustaining severe TBI as a result of this legislation, 8.04% (based on current Medicaid recipients ages 21-64 divided by the general Missouri population ages 21-64) will be Medicaid recipients at the time of the accident, or 3.7 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 \$19,563 per person in FY 2018 or \$72,383.10 ( $\$19,563 * 3.7$  individuals).

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 2016 expenditures) is \$5,558.74. MHD assumes annual expenditures will increase to the PTD level for an annual increase of \$10,022.86 per person sustaining a TBI as a result of this proposal. This amount is trended annually by 4.1%. MHD estimates the annual costs for caring for an individual with TBI will be \$40,187.92 ( $\$10,861.60 * 3.7$  individuals each year). The total annual cost for individuals who are Medicaid recipients at the time of the accident is \$112,571.02 ( $\$72,383.10 + \$40,187.92$ ).

ASSUMPTION (continued)

MHD assumes that TBIs will be life-long injuries; therefore, the number of individuals being served under Medicaid will continue to compound.

This cost reflects expenditures incurred by the Division of MO HealthNet. Any Medicaid services incurred by the Department of Health and Senior Services (DHSS) and the Department of Mental Health (DMH) will be included in their responses.

MHD estimates the total impact as follows:

FY 2018: Total - \$229,081; GR - \$81,874; Federal - \$147,207  
FY 2019: Total - \$464,198; GR - \$165,905; Federal - \$298,293  
FY 2020: Total - \$780,432; GR - \$278,926; Federal - \$501,506

Each year, an additional 13.9 privately insured individuals would gradually become eligible for Medicaid as a result of a severe head injury sustained while riding a motorcycle without a helmet. 3.7 Medicaid recipients would sustain severe head injuries annually while riding a motorcycle without a helmet.

Officials from the **Department of Mental Health (DMH)** assumes riders twenty one 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 medical payment or other insurance coverage of \$100,000. 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 or cover an individual's medical bills, but would not serve as a mitigating eligibility factor for future placement in a DMH waiver program

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.

ASSUMPTION (continued)

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 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 21 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)

DD Community Placements & Cost Estimate

In 2015, the Division of DD admitted 24 individuals with head injuries.

DD estimates an average cost per day of \$334 (\$121,910/yr.) for community placement services. The state share of this cost in FY 2017 is \$44,829 ( $\$121,910 \times 36.772\%$  state share = \$44,829).

Estimated Annual Fiscal Impact

Assuming a 15% rate of TBI incidence due to motorcycle crashes for each year between 2017 and 2021 for individuals aged 21 years old in Missouri, a total of 15 additional individuals or 3 people per year could become eligible for DD waiver services and DBH services.

Utilizing the Division of DD's cost estimates for FY 2017, this represents an expected increased cost to the DMH of \$134,487 of general revenue per year ( $\$44,829 \times 3 = \$134,487$ ).

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 Health and Senior Services (DHSS)** assume the proposed changes to Section 302.020 and 302.06 would exempt motorcyclists age 21 and older from wearing protective headgear when operating a motorcycle or a motortricycle if they have first-party insurance coverage and they have either completed an approved motorcycle safety education course or have possessed their motorcycle license or motorcycle endorsement for at least two years.

ASSUMPTION (continued)

The first-party insurance coverage must have medical benefits in the minimum of one hundred thousand dollars for injuries incurred as a result of an accident while operating a motorcycle or motortricycle. Section 302.020 also proposes that law enforcement will no longer be able to stop, inspect, or detain motorcycle or motortricycle operators or passengers based solely on failure to wear approved protective headgear.

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. There will also be an increase due to the fact that law enforcement can no longer stop operators and riders based solely on not wearing a helmet resulting in some taking the risk even though they do not have the required insurance and experience.

Based on the most recently published motorcycle crash statistics by the Missouri State Highway Patrol, there were 1,734 motorcycle crashes that resulted in personal injuries in 2014. Of these 1,734 motorcycle crashes, based on population estimates it is estimated that 80 percent of those crashes would involve persons age 21 and older. Based on a National Occupant Protection Use Survey, and the experience of other states who have weakened their helmet laws, it is estimated that half of those would not be wearing a helmet if this proposed legislation is passed resulting in 694 individuals involved in a motorcycle crash while not wearing a helmet ( $1,734 \times .80 \times .50 = 694$ ). 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 174 new enrollments to the ABI Program per year ( $694 \times .50 \times .50$ ).

The current average cost per participant to provide rehabilitation services through the ABI Program is \$3,653 per year. The total needed for rehabilitation services would be \$635,622 ( $\$3,653 \times 174$  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 ( $\$61,800 \times 4$  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 2016 there was an average of 116 Missourians on the ABI Program wait-list, with a wait time of over 305 days before rehabilitation services were provided through the program.

ASSUMPTION (continued)

It is clear that additional program participants would result in the ABI Program requesting additional funding for the program.

The impact to the ABI Program will be additional participants each year (additional annual impact plus the impact from the previous year) since the average length of enrollment in the program is greater than the three years estimated in this fiscal note.

Officials from the **Department of Revenue (DOR)** state the following regarding this proposal:

§302.020.02

The proposed legislation states that anyone under the age of twenty-one who is operating or is a passenger on a motorcycle or motortricycle shall wear protective headgear at all times. It also states any person twenty-one years of age and older who is operating a motorcycle or motortricycle who has not completed an approved motorcycle safety education course, has not possessed a motorcycle license or motorcycle endorsement for a minimum of two years, or has been issued an instructional permit, shall wear protective headgear at all times.

§302.026

This section adds language allowing any motorcycle operator twenty-one years of age or older to operate a motorcycle or motortricycle without wearing protective headgear if he or she has completed a motorcycle safety education course and has first-party insurance medical benefits with a minimum amount of one hundred thousand dollars that covers injuries that occurred from an accident while operating a motorcycle or motortricycle. This is in addition to the requirement of maintaining financial responsibility in accordance with Chapter 303. This coverage will be required to be presented upon request from any authorized law enforcement officer.

Administrative Impact

Driver License Bureau (DLB) FY 2018

The website will need to be updated with the new motorcycle guidelines. The Missouri Driver Guide and Missouri Motorcycle Manual will be updated before the next order is placed.

Revenue Band Manager will be required to:

- Draft and review website changes;
- Draft and review Missouri Driver Guide; and
- Draft and review Missouri Motorcycle Manual.

ASSUMPTION (continued)

Administrative Impact (continued)

Revenue Band Manager I - 40hrs @ \$25.93 per hour =\$ 1,037

Update web pages

Administrative Analyst III - 40hrs @ \$22.59 per hour =\$904

**Oversight** assumes DOR is provided with core funding to handle a certain amount of activity each year. Oversight assumes DOR could absorb the costs related to this proposal.

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

**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.

**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 2018 (10 Mo.)	FY 2019	FY 2020
	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>

<u>FISCAL IMPACT - Local Government</u>	FY 2018 (10 Mo.)	FY 2019	FY 2020
	<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 21 years of age.

Qualified motorcycle operators over 21 years of age, who have completed a motorcycle safety education course or who have possessed a motorcycle license for at least two years, may operate a motorcycle or motortricycle upon state highways without protective headgear if they possess insurance that provides first-party medical benefits in the amount of \$100,000 for injuries incurred in an accident while operating a motorcycle or motortricycle. Proof of insurance shall be provided upon request. The proposal specifies that a person 21 years of age or older may not be pulled over by a law enforcement officer solely to determine compliance with the helmet requirements of the proposal.

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 State Highway Patrol  
Department of Health and Senior Services  
Department of Mental Health  
Department of Social Services  
Department of Insurance, Financial Institutions and Professional Registration  
Department of Corrections  
Department of Transportation  
Office of the State Courts Administrator



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