

COMMITTEE ON LEGISLATIVE RESEARCH  
OVERSIGHT DIVISION

**FISCAL NOTE**

L.R. No.: 3742-01  
Bill No.: SB 590  
Subject: Insurance - General; Insurance - Automobile; Insurance - Health; Motor Vehicles;  
Roads and Highways; Transportation  
Type: Original  
Date: January 15, 2020

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Bill Summary: This proposal specifies when persons operating or riding a motorcycle or motor tricycle must wear protective headgear.

**FISCAL SUMMARY**

<b>ESTIMATED NET EFFECT ON GENERAL REVENUE FUND</b>			
FUND AFFECTED	FY 2021	FY 2022	FY 2023
<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 2021	FY 2022	FY 2023
Brain Injury Fund (0742)	(\$833)	(\$1,000)	(\$1,000)
<b>Total Estimated Net Effect on <u>Other</u> State Funds</b>	<b>(\$833)</b>	<b>(\$1,000)</b>	<b>(\$1,000)</b>

Numbers within parentheses: ( ) indicate costs or losses.  
This fiscal note contains 13 pages.

ESTIMATED NET EFFECT ON FEDERAL FUNDS			
FUND AFFECTED	FY 2021	FY 2022	FY 2023
<b>Total Estimated Net Effect on <u>All</u> Federal Funds</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

ESTIMATED NET EFFECT ON FULL TIME EQUIVALENT (FTE)			
FUND AFFECTED	FY 2021	FY 2022	FY 2023
<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.

ESTIMATED NET EFFECT ON LOCAL FUNDS			
FUND AFFECTED	FY 2021	FY 2022	FY 2023
<b>Local Government</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

## **FISCAL ANALYSIS**

### **ASSUMPTION**

Officials from the **Department of Transportation, Department of Public Safety - Missouri Highway Patrol, Department of Corrections, Department of Commerce and Insurance, Office of the State Public Defender and Office of Prosecution Services** each assume the proposal will have no fiscal impact on their respective organizations.

**Oversight** notes that the agencies mentioned above have stated the proposal would not have a direct fiscal impact on their organization. Oversight does not have any information to the contrary. Therefore, Oversight will reflect a zero impact on the fiscal note for these agencies.

Officials at the **Department of Revenue (DOR)** assume the following regarding this proposal:

#### **§302.020.2**

Adds proposed language to change the requirement to use protective headgear while operating a motorcycle or motortricycle from mandating persons of all ages to mandating only persons under eighteen years of age operating or riding as a passenger on a motorcycle or motortricycle or any person eighteen years of age and older that is operating a motorcycle or motor tricycle who has been issued an instructional permit shall wear protective head gear at all times.

#### **§302.026**

The proposed section adds new language that any motorcycle operator eighteen years of age or older may operate a motorcycle or motortricycle without protective headgear if he or she maintains proof of financial responsibility in accordance with Chapter 303, and is covered by a health insurance policy or other form of insurance which will provide the person with medical benefits for injuries incurred as a result of an accident while operating or riding on a motorcycle or motortricycle.

Requires proof of coverage to be presented, upon request by authorized law enforcement, in the form of an insurance card. The proposed provisions of this section are a law enforcement determination of compliance and will not require the Department of Revenue to verify insurance coverage for a new or renewal driver license Class M (motorcycle only driver license) or a driver license with a motor cycle endorsement at the time of application.

#### **Administrative Impact**

The proposed changes would require the Department to:

ASSUMPTION (continued)

- Update Web pages and procedures outlining the new helmet provisions;
- Modify the Missouri Driver Guide;
- Modify the Missouri Motorcycle Manual.

FY 2021 Driver License Bureau

Management Analysis Spec II	20 hrs. x \$20.90 = \$418.00
Revenue Manager Band I	15 hrs. x \$24.33 = <u>\$364.95</u>
Total	= \$782.95

FY 2020 Personal Services Bureau

Administrative Analyst II	4 hrs. x \$18.75 = \$ 75.00
Management Analysis Spec I	20 hrs. x \$18.75 = <u>\$375.00</u>
Total	= \$ 450.00

The Department anticipates being able to absorb these costs. If multiple bills are passed that require Department resources, FTE may be requested in the appropriations process.

**Oversight** assumes DOR will use existing staff and will not hire additional FTE to conduct these activities; therefore, Oversight will not reflect the administrative costs DOR has indicated on the fiscal note.

**Oversight** notes there were 211 convictions in FY 2019 and 99 convictions in FY 2018 for failure to wear protective/approved headgear when on a motorcycle in motion. Oversight notes these convictions result in a fine of \$25, with the entire \$25 going to fine revenue. Oversight is unable to determine how many of these convictions were by persons 18 years of age or younger. Oversight assumes the loss of revenue will be minimal; therefore, Oversight will not reflect this loss on the fiscal note.

Officials from the **Department of Social Services (DSS)** assume the following regarding this proposal:

Missouri Healthnet Division (MHD) assumes the medical benefits provided under MO HealthNet meet the requirements as specified in the bill 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.

ASSUMPTION (continued)

- 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 95% of the injured persons were age 18 or older ( $1979 \times 95\% = 1,880.1$ ) 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 un-helmeted motorcyclists suffered from severe TBI. Therefore, MHD assumes 88.4 persons sustained severe TBI injuries in 2014 (most current data available) as a result of motorcycle crashes while wearing helmets ( $1,880.1 \times 4.7\%$ ). This number would increase to 137.2 individuals with severe TBI injuries if helmets were no longer required under state law ( $1,880.1 \times 7.3\%$ ). Therefore, it is estimated that 48.8 individuals will sustain severe TBI as a result of this legislation ( $137.2 - 88.4$ ).

- 1) MHD assumes that of these 48.8 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 7.3 new PTD in FY 2021, 18.3 in FY 2022, and 32.9 in FY 2023. In addition, MHD assumes that TBIs will be life-long injuries; therefore, the number of individuals being served under Medicaid will continue to compound.

Based on FY 2019 annual Medicaid expenditures for a recipient with PTD trended annually by a 5.1% inflationary factor, MHD estimates an annual first year cost of \$22,076.67 per person for a total first year cost of \$161,160 in FY 2021.

- 2) MHD further assumes that of the 48.8 individuals annually sustaining severe TBI as a result of this legislation, 7.05% (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 3.4 individuals.

ASSUMPTION (continued)

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 2018. Therefore, the initial hospitalization cost is estimated to be \$21,240 per person in FY 2021 or \$72,216.00 (\$21,240\* 3.4 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 2018 expenditures) is \$5,962.83. MHD assumes annual expenditures will increase to the PTD level for an annual increase of \$14,023.27 per person sustaining a TBI as a result of this legislation.

This amount is trended annually by 5.1%. MHD estimates the annual costs for caring for an individual with TBI will be \$47,679.12 (\$14,023.27\* 3.4 individuals each year). The total annual cost for individuals who are Medicaid recipients at the time of the accident is \$124,882.40 (\$72,216.00+ \$52,666.40). 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 2021: Total - \$286,042; GR - \$99,734; Federal - \$186,308  
FY 2022: Total - \$609,622; GR - \$212,557; Federal - \$397,065  
FY 2023: Total - \$1,053,288; GR - \$367,250; Federal - \$686,038

Each year, an additional 14.6 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. 3.4 Medicaid recipients would sustain severe head injuries annually while riding a motorcycle without a helmet.

ASSUMPTION (continued)

In response to a similar bill from 2019 (SB 120), officials from the **Department of Mental Health (DMH)** assumed the following regarding this proposal:

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 (see Section 630.005, RSMo). This proposal would 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 operating a motorcycle or motortricycle without protective headgear, thereby potentially qualifying them for DD waiver services.

DD estimates an average cost per day of \$393 (\$143,445 / yr.) for residential services. Utilizing the methodology below, the following increased costs could occur: \$246,810 state share increased cost per year, plus \$470,415 federal share increased cost per year. The total increased cost per year could equal \$717,225. 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 18-21 years of age would be in compliance with Section 302.026.1, RSMo. at the time of a motorcycle crash resulting in TBI, and would carry the proposed minimum medical payment or other insurance coverage of \$1 million. 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 1,847 personal injury motorcycle crashes in 2016, injuring 2,183 people (see Missouri State Highway Patrol, Statistical Analysis Center, Missouri Traffic Safety Compendium, Report Year 2016, Report 7.1 - Crashes Involving Motorcycles by Crash Severity and Personal Injury Severity). Link:

<http://www.mshp.dps.missouri.gov/MSHPWeb/SAC/Compendium/TrafficCompendium.html#>

The State's ten year average for motorcycle crashes between 2007 and 2016 is 1,840 and 2,146 for persons injured (see Report 7.1 for the years 2007 through 2016 - same link as above).

### ASSUMPTION (continued)

In 2016, the number of crashes increased 6.33% from the preceding year (see Missouri State Highway Patrol, Statistical Analysis Center, Missouri Traffic Safety Compendium, Report Year 2016, Report 7.2 - Motorcycle Involved Crashes by Annual Percent Change - same link as above).

Based on available data for 2012 through 2016, projections indicate Missouri will have experienced an average of 2,128 motorcycle crash injuries per year between 2017 and 2021 (see Missouri State Highway Patrol, Statistical Analysis Center, Missouri Traffic Safety Compendium, Report 7.1 - Crashes Involving Motorcycles by Crash Severity and Personal Injury Severity for the years 2012 through 2016 - same link as above).

### State Demographics

The United States Census Bureau estimates that in 2017 the percentage of persons aged 18 to 21 years old residing in Missouri comprised 5.218% of the total state population, or 319,000 persons out of 6,113,532 (Citation: Annual Estimates of the Resident Population by Single Year of Age and Sex for the United States, States, and Puerto Rico Commonwealth: April 1, 2010 to July 1, 2017 Source: U.S. Census Bureau, Population Division Release Date: June 2018).

### 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 15-24. The Centers for Disease Control released this report in 2010, which is the most recent in-depth national-level study on the frequency of TBI-related medical encounters, including hospitalization and emergency department visit data for the years 2002-2006. Comparing this data to the census data previously discussed yields an estimate of 259 persons aged 18 to 21 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).

### DD Community Placements & Cost Estimate

In 2018, the Division of DD admitted 46 individuals with head injuries (data is based on the diagnosis entered in DMH's client services system when the consumer is admitted).

DD estimates an average cost per day of \$393 (\$143,445/yr.) for residential services.

- The state share of this cost in FY 2020 is \$49,362 (\$143,445 x 34.412% state share = \$49,362).
- The federal share of this cost in FY 2020 is \$94,083 (\$143,445 x 65.588% federal share = \$94,083).
- The total cost in FY 2020 is \$717,225.



ASSUMPTION (continued)

Estimated Annual Fiscal Impact

Assuming a 5% rate of TBI incidence due to motorcycle crashes for each year between 2019 and 2023 for individuals aged 18 to 21 in Missouri, a total of 25 additional individuals or 5 people per year could become eligible for DD waiver services.

Utilizing the Division of DD's cost estimates for FY 2020, this represents an annual increased cost to the DMH of \$246,810 of general revenue per year ( $\$49,362 \times 5 = \$246,810$ ). In addition, there would be an annual increased cost to the DMH of \$470,415 of federal funds per year ( $\$94,083 \times 5 = \$470,415$ ). The Department assumes we would receive the federal Medicaid match dollars. Thereby making the net cost to DMH the \$246,810 per year in general revenue funds.

In response to a similar bill from 2019 (SB 120), officials from the **Department of Health and Senior Services (DHSS)** assumed the following regarding this proposal:

Changing the helmet law will increase the number of individuals incurring a traumatic brain injury, thus there will be 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).

Based on motorcycle crash statistics provided by the Missouri State Highway Patrol, there were 2,044 personal injuries that resulted from motorcycle crashes in 2017.

Of these 2,044 injuries, 125 involved persons age 18 to 20 and 1,698 involved persons age 21 through 64. According to a National Occupant Protection Use Survey, it is estimated that half of those persons would not be wearing a helmet if this proposed legislation is passed; resulting in 62.5 (age 18-20) and 849 (age 21-64) individuals involved in a motorcycle crash while not wearing a helmet ( $125 \times .50 = 62.5$  and  $1,698 \times .50 = 849$ ).

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 program enrollments, there would be 16 additional participants dually enrolled in CYSHCN and HCY ( $62.5 \times .50 \times .50 = 16$ ), with 50 percent (or 8 participants) of the HCY enrollments aging out into the MFAW Program in subsequent years ( $16 \times .50 = 8$ ), and 212 additional enrollments to the ABI Program per year ( $849 \times .50 \times .50 = 212$ ).

The average cost per participant for CYSHCN is \$821.37 per year. The total needed for CYSHCN services would be \$13,142 ( $\$821.37 \times 16$  participants) per year.

ASSUMPTION (continued)

Both HCY and MFAW are partially federally funded at 65.588 percent federal and 34.412 percent state Medicaid match (FY 2020 FMAP rate). The average cost per participant to provide services through the HCY Program is \$21,042 per year. The total needed for HCY services would be \$336,676 ( $\$21,042.27 \times 16$  participants), funded as \$220,819 by federal and \$115,857 by the state.

The average cost per participant to provide services through the MFAW Program is \$99,451 per year. The total needed for services through the MFAW Program would be \$795,606 ( $8 \text{ MFAW participants} \times \$99,450.78$ ), funded as \$518,759 by federal and \$276,847 by the state.

The current average cost per participant to provide rehabilitation services through the ABI Program is \$3,281 per year. The total needed for rehabilitation services would be \$695,572 ( $\$3,281 \times 212$  participants). The increase in participants would also require the ABI Program to add six additional Service Coordinators, based on the fact that currently there is an average of 40 participants per Service Coordinator caseload ( $212/40$  participants per Service Coordinator).

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 six additional Service Coordinators would be \$370,800 ( $\$61,800 \times 6$  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 2018, there were 135 Missourians on the ABI Program wait list, with a wait time of over 243 days before rehabilitation services were provided through the program. It is clear that additional program participants would result in the ABI Program requesting additional funding for the program.

Given that CYSHCN and HCY participants age out of the programs by age 21, it is estimated that the influx of these two programs' new participants will be offset each year by the outflux of the programs' participants. The impact to the ABI and MFAW Programs 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. Given that one of the eligibility requirements for the MFAW Program is that the program participant ages out from the HCY Program, the additional impact on MFAW will not be experienced until Fiscal Year 2021.

ASSUMPTION (continued)

Brain Injury Fund

Currently there is a two dollar surcharge collected for the Brain Injury Fund (Section 304.028, RSMo) from the fines assessed for each citation given for failure to wear protective headgear. If it is no longer illegal to not wear protective headgear for those age 18 and over, it would cause a decrease in the amount collected for the Brain Injury Fund.

According to the Missouri State Highway Patrol there were 542 citations made in 2016 and 447 citations in 2017 for failure to wear protective headgear while riding a motorcycle for those age 18 and older. This is an average of 495 citations each year. Therefore it is estimated that revenue to the Brain Injury Fund will decrease by approximately \$1,000 each year from the current level of collection.

**Oversight** does not have any information to the contrary in regards to DHSS's assumptions; therefore, Oversight will reflect DHSS's loss of revenue on the fiscal note.

**Oversight** notes the Brain Injury Fund (0742) had a fund balance of \$865,525 as of December 31, 2019.

**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.

**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 2021 (10 Mo.)	FY 2022	FY 2023
<b>BRAIN INJURY FUND</b>			
<u>Loss - DHSS - loss of fine revenue due to helmets no longer being required p. 11</u>	<u>(\$833)</u>	<u>(\$1,000)</u>	<u>(\$1,000)</u>
<b>ESTIMATED NET EFFECT ON THE BRAIN INJURY BUND</b>	<b><u>(\$833)</u></b>	<b><u>(\$1,000)</u></b>	<b><u>(\$1,000)</u></b>

FISCAL IMPACT - Local Government

FY 2021  
(10 Mo.)

FY 2022

FY 2023

\$0

\$0

\$0

FISCAL IMPACT - Small Business

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

FISCAL DESCRIPTION

Currently, every person operating or riding a motorcycle or motortricycle is required to wear protective headgear.

This act provides that persons under the age of 18 who are operating or riding as a passenger on a motorcycle or motortricycle shall wear a helmet when the vehicle is in motion. Similarly, a person who is 18 or older, is operating a motorcycle or motortricycle, and who has been issued an instruction permit shall wear a helmet when the vehicle is in motion. (Section 302.020.2)

This act also provides that qualified operators who are 18 or older may operate a motorcycle or motortricycle without a helmet if he or she is covered by a health insurance policy or other form of insurance which will provide the person with medical benefits for injuries incurred as a result of a motorcycle or motortricycle accident. Proof of such coverage shall be provided on request of law enforcement by showing a copy of the qualified operator's insurance card. (Section 302.026)

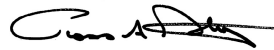
This legislation is not federally mandated, would not duplicate any other program and would not require additional capital improvements or rental space.

SOURCES OF INFORMATION

Department of Transportation  
Department of Revenue  
Department of Public Safety - Missouri Highway Patrol  
Department of Corrections  
Department of Commerce and Insurance  
Office of Prosecution Services  
Office of the State Public Defender  
Department of Mental Health  
Department of Social Services  
Department of Health and Senior Services



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