MILLIMAN REPORT

The Impact of Michigan Auto Insurance Reform

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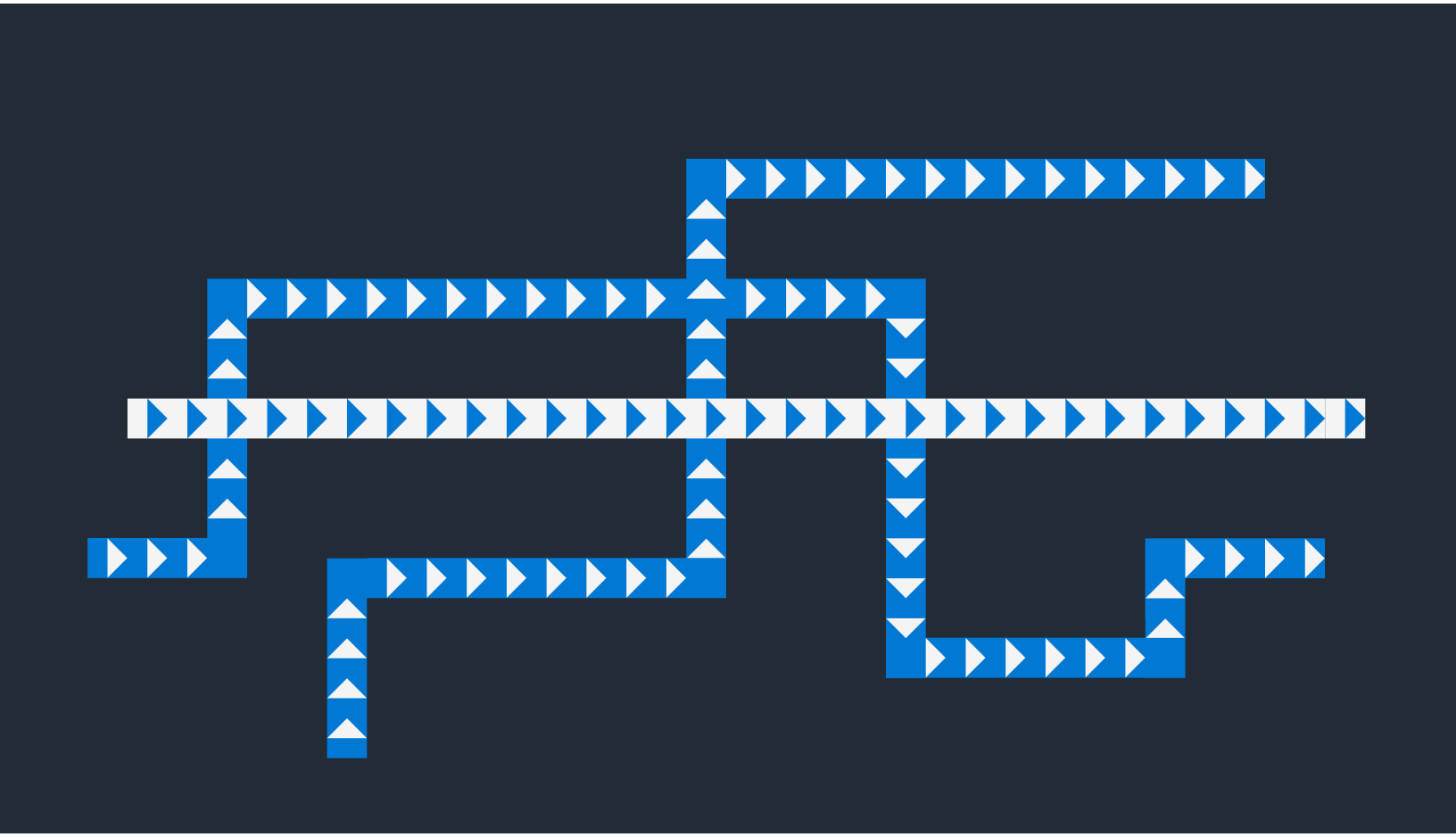

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SCOPE OF ANALYSIS

Michigan Public Acts 21 and 22 of 2019 ("PA 21 & 22" or "the reform") became effective June 11, 2019 and had broad reaching impacts on Michigan automobile ("auto") insurance no-fault law. Section 401 of Michigan Act No. 121 of Public Acts of 2024 ("PA 121") required the Michigan Department of Insurance and Financial Services ("DIFS") to study and report on the effects of the 2019 auto insurance reform. Specifically, PA 121 mandated the study of the impact on:

- Costs;
- Participants;
- Demographics of those impacted;
- Access to care;
- Access to providers; and
- Total impact on insured accident victims and access to long-term care providers.

Milliman, Inc. ("Milliman") was engaged by DIFS to conduct this study and provide its results in the form of a report. Milliman was selected and awarded the contract for this study after participating in an open request for proposal ("RFP") competitive bidding process initiated by DIFS. To address any conflicts of interest that might be presented by Milliman's pre-existing client relationships with entities that are part of the auto and health insurance systems in Michigan, the project was led by a senior consultant who does not currently provide any services to Milliman's Michigan-based auto and health insurance clients. The results of this study have not been discussed or shared with any other Milliman clients. The intended users of the report are the Michigan Legislature and DIFS.

Our analysis was limited to a study of the impact of reform on private passenger auto insurance and did not consider the impact on commercial auto insurance. As such, any use of "auto insurance" in this report is intended to refer to private passenger auto insurance unless otherwise stated. Further, our analysis only considered the impact of PA 21 & 22 on private passenger auto-types (e.g., cars, SUVs, trucks, and vans) and excluded the impact on motorcycles; classic or antique vehicles; and miscellaneous vehicle types such as all-terrain vehicles ("ATVs") or recreational vehicles ("RVs").

IMPACT OF PA 21 & 22

We estimate that PA 21 & 22 impacted Michigan auto insurance in the following ways:

- From 2019 to 2024, the reform reduced the overall average auto insurance premium per vehicle (cost to consumers) in Michigan by $357 (18.8%), broken out by coverage below.
  - The average premium for PIP coverage decreased by $369 per insured vehicle. Individual savings can vary greatly based on consumer's specific PIP coverage selections, though even participants who select unlimited coverage have experienced reductions in premiums, as the MCCA assessment has decreased post-reform due to the medical fee schedule and order of priority changes of the reform.
    - After steadily increasing in the years preceding the reform, the MCCA assessment for anticipated new claims has decreased by $142 per insured vehicle since 2019. Including the MCCA deficit recoupment assessment, the total MCCA assessment has decreased by $120 per insured vehicle.
  - The average premium for Liability coverage increased by $21 per insured vehicle.
  - The average premium for Physical Damage was not materially impacted by the reform.
  - By demographic, the reform impacted consumers as follows:
    - Consumers in Wayne County experienced the largest overall premium decrease as a result of the reform, saving approximately $539 per insured vehicle on PIP coverage compared to the statewide average of $369.
    - Policies with named insureds over the age of 64 experienced slightly larger premium savings than other age groups, saving 21.5% on total policy premium compared to the 18.0% to 18.6% savings

experienced by other age groups. This is likely driven by the PIP opt-out coverage option, which consumers are eligible to choose if they have Medicare.

  - The reform impacted policies with single (i.e., unmarried) named insureds similarly regardless of gender. The reform impacted policies differently by gender for policies with married named insureds, although this is likely driven by other correlated policy attributes, such as the composition of drivers and vehicles on the policy as well as limit selections.

- Prior to the reform Michigan's uninsured motorist rate was on average approximately 5.4% higher than the uninsured motorist rate of the entire U.S. This difference was reduced by the reform. Post reform, Michigan's uninsured motorist rate was on average approximately 3.9% higher than the uninsured motorist rate of the entire U.S.
- From 2019 to 2024, the reform reduced the overall average cost of providing auto insurance in Michigan, including claims and other associated costs, by $347, or 19.3%, per insured vehicle as measured in terms of 2024 costs levels, broken out below. Note that insurers rely on historical costs to set future prices. As a result, changes in premiums may lag behind shifts in the actual costs of providing insurance, which can cause the effects on average premiums (discussed above) and the cost of providing insurance to differ.
  - The cost of providing Personal Injury Protection ("PIP") coverage decreased by $474 per insured vehicle. Of those cost reductions, the reform's medical fee schedule reduced the cost of providing PIP coverage by approximately 19.7%.
  - The cost of providing Liability coverage increased by $109 per insured vehicle, driven by the increase in the default Bodily Injury limits required to be offered to consumers as a result of the reform.
  - The cost of providing Physical Damage coverage was not materially impacted by the reform.
- As required by PA 121, we reviewed the impact of the reform on access to care and to healthcare providers, though it is difficult or impossible to comprehensively measure and understand due to data limitations. The reform impacted auto accident victims' access to care and to healthcare providers in the following ways:
  - The reform established a medical fee schedule for providers who care for auto accident victims. Based on the 136 formal complaints submitted to DIFS, this may have (initially in particular) impacted the ability of some auto accident victims to obtain care from certain healthcare providers---particularly for attendant care services, which are typically needed for more severely injured auto accident victims. All DIFS access to care complaints have been closed as of November 21, 2025. Closed complaints include cases where the insurer presents a plan for appropriate care that complies with state law and the terms of the consumer's auto insurance policy. Some families may still be disappointed in the care plan if it is different from their preference or their previous care plan, but these cases are closed when medically appropriate care is in place.
  - Comparing average payments for some medical services is complicated due to differences in payer billing practices and procedure code definitions. However, our sample review found that average auto insurance payments for some attendant care services were equal to or below average payment rates from other payers (Medicaid, Medicare, and commercial health insurers). These lower payment rates for attendant care services may have contributed to reported difficulties in accessing attendant care services, as reflected in the complaints submitted to DIFS, though the drop-off in complaints after 2022 and the resolution rate may suggest accident victims were able to find and are now receiving alternative care.
  - Data suggests some of these access to care issues may have been alleviated because of judicial decisions (see the Summary of Notable Post-Reform Litigation and Court Cases discussion within the Background section of this report for a discussion of what we believe are the most relevant court cases in this regard).
  - Michigan previously required all drivers to purchase unlimited PIP medical coverage, and the reform allowed consumers to select lower PIP coverage levels for the first time in decades. Additionally, the reform introduced maximum benefits on claims covered by the Michigan Assigned Claims Plan. While no formal complaints have been submitted to DIFS about access to care due to health insurance coverage gap disputes, we estimate that approximately 1.7% of auto accident victims per year (fewer than 1,200) could be exposed to gaps in coverage after exhausting the auto insurance coverage available to them following an accident. Medicaid or Medicare coverage may be available to these accident victims to the extent the accident victims are eligible under state or federal law.

In total, PA 21 & 22 reduced the cost of auto insurance for many consumers in Michigan. The reform reduced the amount paid to providers who care for auto accident victims, which may have initially impacted access to care experienced by some auto accident victims—particularly more severely injured auto accident victims requiring attendant care services. Judicial decisions may have mitigated access to care issues, though the extent of this mitigation cannot yet be fully quantified due to the recency of some decisions and the data available. The reductions in costs are also partially offset by a small number of auto accident victims who may ultimately experience gaps in coverage as they seek care if they choose a lower level of PIP medical coverage or have a claim covered by the Michigan Assigned Claims Plan. Note that additional costs as a result of the reform, such as increases in out-of-pocket expenses due to health insurance co-pays and deductibles, were not included in our analysis due to the data limitations, contingencies and uncertainties involved.

A deeper discussion of these impacts, as well as the methodology used to measure them, is provided throughout this report.

Background

AUTO INSURANCE COVERAGE IN MICHIGAN

Michigan law requires drivers to purchase a variety of coverages for private passenger automobile insurance, some of which are unique to the State of Michigan and not found in other states. In particular, Michigan is unique in that it requires insurance companies to offer unlimited PIP coverage to consumers, which provides unlimited medical benefits to insured auto accident victims. Prior to the reform, every auto insurance consumer was required to purchase unlimited PIP coverage. Unlimited PIP coverage is not offered by auto insurance companies in other no-fault states, and while auto insurers in some states allow consumers to purchase PIP limits as high as $250,000, the PIP limits offered in most no-fault states are much lower (e.g., at or below $50,000). Beyond PIP and other coverages that are required by state law for consumers to purchase, Michigan consumers have the option of purchasing additional coverages not mandated by state statutes to meet their needs.

The following is a brief summary of the main coverages offered for auto insurance in Michigan.[1,2]

Personal Injury Protection Coverages

- Personal Injury Protection ("PIP") – Mandatory coverage that pays for insured consumers' reasonable medical expenses up to the policy limit, if a limit is applicable, following an auto accident. Also pays for non-medical benefits following an auto accident, including lost wages, replacement services, and funeral and burial expenses.
- Excess Attendant Care ("XSAC") – Optional coverage for consumers who purchase limited PIP coverage, which pays for attendant care services beyond the underlying PIP limits on the policy.

Liability Coverages

- Bodily Injury ("BI") – Mandatory coverage that pays for legal defense costs and damages the insured consumer causes due to an auto accident in which:
  - Someone was killed or seriously injured (if the accident occurred in Michigan).
  - The accident occurred in Michigan and a non-resident of Michigan was the occupant of a vehicle not registered in Michigan.
  - The accident occurred outside of Michigan.
- Property Damage ("PD") – Mandatory coverage that pays for damage the insured consumer causes to another person's property, including vehicles, outside of Michigan.
- Property Protection Insurance ("PPI") – Mandatory coverage that pays up to $1 million for damage the insured consumer causes to another person's property (such as buildings, fences, or parked vehicles) within Michigan.
- Limited Property Damage ("Mini-Tort") – Optional coverage that pays up to $3,000 for damage to another person's vehicle when the insured consumer is at fault and the other driver does not have collision coverage or has a collision deductible.
- Uninsured Motorist Bodily Injury ("UM") – Optional coverage that pays for injuries to the insured consumer and their passengers if they exhaust their PIP limits and/or are awarded a settlement when injured in an accident caused by a driver who does not have insurance.
- Underinsured Motorist Bodily Injury ("UIM") – Optional coverage that pays for injuries to the insured consumer and their passengers if they exhaust their PIP limits and/or are awarded a settlement when injured in an accident caused by a driver who does not have sufficient liability insurance coverage.

[1] Michigan Department of Insurance and Financial Services. (n.d.). *Your Guide to Automobile Insurance*. https://www.michigan.gov/difs/-/media/Project/Websites/difs/Publication/Auto/Auto_Insurance_Guide.pdf

[2] Michigan Department of Insurance and Financial Services. (n.d.). *Purchasing Auto Insurance FAQ*. https://www.michigan.gov/difs/news-and-outreach/faq/insurance/info-purchasing-auto-insurance

Physical Damage Coverages

- Collision ("COLL") – Optional coverage that pays for damage to the insured consumer's own vehicle when it is involved in a collision with another vehicle or stationary object. In Michigan, consumers may choose one of the following Collision coverage options:
  - Broad Form – Pays for damage to the insured consumer's vehicle regardless of fault. The insured consumer pays their deductible only if they are more than 50% at fault.
  - Standard – Pays for damage to the insured consumer's vehicle regardless of fault. The insured consumer always pays their deductible, regardless of fault.
  - Limited – Pays for damage to the insured consumer's vehicle only if they are not more than 50% at fault. The insured consumer always pays their deductible (if a deductible exists).
- Comprehensive ("COMP") – Optional coverage that pays if the insured consumer's vehicle is stolen or damaged due to falling objects, fire, flood, vandalism, or collision with an animal.

Additional miscellaneous coverages such as reimbursement for rental vehicles and towing may also be offered by insurers. These miscellaneous coverages were not included in the scope of this report.

Figure 1 below summarizes the main coverages written by most private passenger automobile insurers in Michigan as well as how these coverages were grouped for analyses discussed in this report.

FIGURE 1: SUMMARY OF AUTO INSURANCE COVERAGES IN MICHIGAN

COVERAGE[3]	COVERAGE GROUP (USED FOR ANALYSIS)	COVERAGE TYPE	MANDATORY?
Personal Injury Protection (PIP)	Personal Injury Protection	1st Party Medical & Non-Medical	Yes
Bodily Injury (BI)	Liability	3rd Party Liability	Yes
Property Damage (PD)	Liability	3rd Party Liability	Yes
Property Protection Insurance (PPI)	Liability	3rd Party Liability	Yes
Limited Property Damage (Mini-Tort)	Liability	3rd Party Liability	Optional
Excess Attendant Care (XSAC)	Personal Injury Protection	1st Party Medical	Optional
Collision (COLL)	Physical damage	1st Party Physical Damage	Optional
Comprehensive (COMP)	Physical damage	1st Party Physical Damage	Optional
Uninsured / Underinsured Motorists Bodily Injury (UM / UIM)	Liability	1st Party Medical	Optional

SUMMARY OF MICHIGAN PUBLIC ACTS 21 & 22 OF 2019

PA 21 & 22 became effective June 11, 2019 and had a broad reaching impact on Michigan automobile insurance no-fault law. We believe the following components of PA 21 & 22 are most relevant and material to our study.[4]

- **Choice of PIP Coverage** – Whereas prior to PA 21 & 22 drivers had to maintain unlimited PIP coverage, MCL 500.3107c(1) of PA 21 & 22 introduced options to purchase limited PIP coverage or to opt-out entirely from PIP medical coverage.[5] The coverage options include the following:
  - Unlimited coverage
  - Coverage up to $500,000
  - Coverage up to $250,000

[3] Note that the names of the above coverages may vary by insurer (e.g., some insurers may use "Other Than Collision" instead of "Comprehensive"). Also note that PA 21 & 22 refers to PIP coverage as "personal protection insurance," however, "PIP" is the naming convention universally used throughout the industry.

[4] The omission of other changes enacted by PA 21 & 22 does not imply that those changes have no impact on the costs and effects studied in our report. A complete and detailed summary of all components of PA 21 & 22 can be found in other publicly available reports.

[5] In the event a participant opts-out of PIP medical coverage, non-medical PIP coverage must still be maintained (e.g., work loss, replacement services, and funeral and burial expense).

  - Coverage up to $250,000 with PIP Medical Exclusions[6]
  - Coverage up to $50,000[7]
  - PIP Medical Opt-Out[8]
- **Medical Fee Schedule** – MCL 500.3157 of PA 21 & 22 introduced a medical fee schedule that defined reimbursement rates by year for certain medical care treatments, products, services, and accommodations paid under PIP medical coverage. The medical fee schedule became effective July 2, 2021, with subsequent changes effective in 2022 and 2023.
- **Required PIP Rate Reductions** – In conjunction with the above PIP coverage options and medical fee schedule, MCL 500.2111f(2) of PA 21 & 22 mandated that auto insurers reduce average PIP medical premium rates per vehicle by the following amounts relative to PIP premium rates that were in effect as of May 1, 2019 (pre-reform):
  - For unlimited coverage: 10% or greater reduction per vehicle
  - For coverage up to $500,000: 20% or greater reduction per vehicle
  - For coverage up to $250,000: 35% or greater reduction per vehicle
  - For coverage up to $50,000: 45% or greater reduction per vehicle

  Auto insurance companies must demonstrate to DIFS that these premium reductions have been met and must maintain these reductions for eight years following the implementation of PA 21 & 22.
- **Attendant Care Coverage** – For insureds who select a limited form of PIP coverage, PA 21 & 22 required auto insurers to offer the opportunity for those insureds to buy additional coverage for attendant care services. This coverage, which in this report is referred to as "Excess Attendant Care," applies in excess of the insured's PIP limits.
- **Order of Priority for PIP Benefits** – MCL 500.3114 of PA 21 & 22 redefined the rules for determining which insurance policies cover injured auto accident victims ("order of priority"). Prior to the reform, eligible uninsured injured auto accident victims [9] involved in an accident (e.g., passenger of vehicle, pedestrian, bicyclist, or operator of a miscellaneous vehicle) could claim PIP benefits from the insurer of the vehicle involved in the accident. After the reform, these individuals must seek PIP benefits through the Michigan Assigned Claims Plan ("MACP") instead of through another driver's insurance policy.
- **Michigan Assigned Claims Plan Maximum Benefits** – MCL 500.3172(7) of PA 21 & 22 limited the maximum amount payable for claims covered by the MACP; previously the MACP provided unlimited benefits. In most circumstances, auto accident victims covered by the MACP are entitled to a maximum benefit of $250,000. However, there are limited circumstances, pursuant to Sections 3107d(6)(c) and 3109a(2)(d)(ii), in which auto accident victims covered by the MACP are entitled to a maximum benefit of $2,000,000. Order 19-049-M[10] issued by DIFS clarified that these limits became effective for accidents occurring on or after July 2, 2020.
- **Required Minimum Offered Liability Limits** – MCL 500.3009 of PA 21 & 22 required auto insurance policies to offer Bodily Injury coverage with limits of at least $250,000 per person and up to $500,000 per accident ($250,000 / $500,000). However, insureds can purchase coverage with limits as low as $50,000 / $100,000 with the completion and signing of a form that acknowledges understanding of their choice. Prior to the reform, the minimum required limits for Bodily Injury coverage were $20,000 / $40,000. Additionally, MCL 500.3135(3)(e) revised the limit for Limited Property Damage (Mini-Tort) from $1,000 to $3,000.

[6] Coverage option allows the named insured and/or other members of the household with qualifying health insurance (that which covers injuries related to auto accidents) to opt-out of PIP medical coverage entirely. Those in the household who do not have qualifying health insurance have PIP medical coverage up to $250,000.

[7] Named insured must have Medicaid coverage to be eligible. Others within the household must either have qualifying health insurance (that which covers injuries related to auto accidents), Medicaid coverage, or a separate auto insurance policy.

[8] Named insured must have Medicare coverage Parts A and B to be eligible. Others within the household must either have qualifying health insurance (that which covers injuries related to auto accidents) or a separate auto insurance policy.

[9] Auto accident victims without an underlying auto insurance policy.

[10] *State Reaches Settlement to Protect Michigan Car Accident Victims.* (2021, August 16). Department of Insurance and Financial Services. Retrieved from https://www.michigan.gov/difs/news-and-outreach/press-releases/2021/08/16/state-reaches-settlement-to-protect-michigan-car-accident-victims

- **Prohibited Rating Factors** – MCL 500.2111(4) of PA 21 & 22 prohibited insurers from using certain rating characteristics[11] in the calculation of policy premiums. These include:
  - Sex
  - Marital Status
  - Home ownership
  - Education level attained
  - Occupation
  - The zip code in which the insured resides[12]
  - Credit score[13]
- **Prohibition on Insurance Penalties for Lapses in Prior Coverage** – MCL 500.2116(b) of PA 21 & 22 created an amnesty period for consumers to purchase auto insurance without penalty if they previously did not have insurance but were required to have it. This prohibited insurers from refusing to insure, refusing to continue to insure, limiting coverage available, charging a reinstatement fee, or increasing auto insurance premiums for an eligible consumer solely because the consumer previously failed to maintain insurance when required. These requirements applied to consumers who applied for auto insurance before January 1, 2022.

Figure 2 below summarizes the coverages that were directly impacted due to the changes listed above. Note that it is possible for any of the listed changes to also have indirect impacts on other coverages. For instance, the increase in the minimum mandatory offered BI limits may have indirect impacts on insureds' selected PIP limit.

FIGURE 2: SUMMARY OF COVERAGES IMPACTED BY KEY CHANGES ENACTED BY PA 21 & 22

	COVERAGE								
COMPONENT OF PA 21 & 22	**BI**	**PD / MINI-TORT**	**PPI**	**PIP**	**COLL**	**COMP**	**UM/ UIM**	**MCCA Assessment**	**MACP Assessment**
Choice of PIP Coverage				X				X	
Medical Fee Schedule				X				X	X
Required PIP Rate Reductions				X					
Attendant Care Coverage				X					
Order of Priority for PIP Benefits				X				X	X
MACP Maximum Benefits				X					X
Required Min. Offered Liability Limits	X	X							
Prohibited Rating Factors	X	X	X	X	X	X	X	N/A	N/A

Legend:
BI: Bodily Injury
PD: Property Damage
Mini-Tort: Limited Property Damage
PPI: Property Protection Insurance
PIP: Personal Injury Protection
COLL: Collision
COMP: Comprehensive
UM / UIM: Uninsured / Underinsured Motorist Bodily Injury
MCCA: Michigan Catastrophic Claims Association
MACP: Michigan Assigned Claims Plan

It should be noted that while the prohibited rating factor changes may impact premiums for individual policyholders, they likely had negligible impact on overall premium levels for the industry. This is because most insurance companies manage their overall rate level via a separate actuarial analysis which defines the amount of premium in aggregate (i.e., across all policyholders) that must be collected to cover expected future costs. Changes in how this

[11] Section 2111(f)(4) also prohibits the use of sex and marital status. These rating characteristics were prohibited from use prior to PA 21 & 22.

[12] Insurers are still permitted to rate risks by geographical territory. Those territories, however, must not be defined by zip code.

[13] Insurers are still permitted to use insurance score in rating.

aggregate amount of premium is allocated to individual policyholders via rating factor changes is typically managed on a revenue neutral basis, meaning while individual policyholders may see their premiums increase or decrease based on changes in rating factors, the total premium collected by an insurer on an aggregate level remains the same.

SUMMARY OF NOTABLE POST-REFORM LITIGATION AND COURT CASES

The implementation of PA 21 & 22 triggered a large volume of litigation, some of which is still ongoing and may take years to resolve. Many of the disputes raised in the litigation involve arguments surrounding the interpretation and implementation of PA 21 & 22.

The following provides a summary of key court decisions issued as of the date of this report that we believe are the most relevant to the scope of our study. It is not an exhaustive list of all litigation surrounding PA 21 & 22. This report should not be construed as a legal opinion as to any of the litigation surrounding PA 21 & 22. Ongoing or future litigation may impact costs and other aspects quantified in this report. We have not accounted for any potential future impacts due to ongoing or future litigation in this analysis. Milliman expresses no opinion on the legal interpretation of the rulings below or any other pending or future litigation, as they are legal rather than actuarial matters.

Andary et al. v. USAA Casualty Insurance Company et al.

Central to the *Andary et al. v. USAA Casualty Insurance Company et al. ("Andary")* case was whether MCL 500.3157 applied to policies issued prior to PA 21 & 22's June 11, 2019 effective date. On August 25, 2022, the Michigan Court of Appeals released its decision, ruling in favor of the plaintiffs: Ellen Andary, Philip Krueger, and Eisenhower Center.[14] On July 31, 2023, the Michigan Supreme Court issued a decision that affirmed the *Andary* ruling in part, vacated in part, and reversed it in part, holding that changes to MCL 500.3157 from the PA 21 & 22 medical fee schedules do not apply to claims covered by policies issued prior to the June 11, 2019 effective date of PA 21 & 22.[15] Policies issued on or after June 11, 2019 were unaffected by this decision and all provisions of PA 21 & 22 remain in effect for claims associated with these policies.

Following the *Andary* decision, there was disagreement within the industry and among auto insurers as to whether *Andary* applied to the entirety of MCL 500.3157 or only to subsections (7), which caps a healthcare provider's reimbursement for services not covered by Medicare; and (10) which limits the reimbursable hours of family-provided attendant care. On April 11, 2025, the Michigan Court of Appeals released its opinion in the case of *Fremont Insurance Company v. Lighthouse Outpatient Center ("Fremont"),*[16] stating that the pre-reform "reasonable and customary" standard for healthcare provider reimbursement applies to the cost of treatment provided to persons injured in motor vehicle accidents occurring before June 11, 2019. This ruling therefore applied *Andary's* reasoning to the entirety of MCL 500.3157, i.e., the entire fee schedule in the amended version of MCL 500.3157 does not apply to the cost of treatment provided to persons injured in motor vehicle accidents occurring before June 11, 2019.

Central Home Health Care Services, Inc. v. Progressive Michigan Insurance Company

In *Central Home Health Care Services, Inc. v. Progressive Michigan Insurance Company ("CHHC"),*[17] the Michigan Court of Appeals addressed whether certain in-home healthcare services for auto accident victims should be reimbursed under the 2019 no-fault reform fee caps limiting payment to 55% of January 1, 2019 rates for services not covered by Medicare (i.e., MCL 500.3157(7)) or under the cap of 200% of the Medicare amount for Medicare-covered services (i.e., MCL 500.3157(2)). The Court held that the key question is whether Medicare covers the service at all, regardless of whether it uses a fee schedule or a prospective payment system. Because Medicare does cover in-home skilled nursing and related services, the Court ruled the Medicare-based cap of MCL 500.3157(2) applies rather than the chargemaster-based cap of MCL 500.3157(7).

[14] *Andary v USAA Cas Ins Co*, 343 Mich App 1; 996 NW2d 784 (2022).

[15] *Andary v USAA Cas Ins Co,* 512 Mich 207; 1 NW3d 186 (2023).

[16] *Fremont Ins Co v Lighthouse Outpatient Ctr*, ___ Mich App ___; ___NW3d ___ (2025) (Docket No. 370500).

[17] *Central Home Health Care Servs Inc v Progressive Marathon Ins Co*, ___ Mich App ___; ___NW2d ___ (2024) (Docket No. 364653).

This interpretation significantly narrowed the use of the 55% limit, meaning that many in-home and some institutional long-term care services for PIP auto accident victims will be reimbursed at higher rates tied to Medicare amounts following the decision on March 21, 2024.

DATA SOURCES

Our analysis relied on various data sources and information through November 26, 2025. The evaluation date of each data source varies and is discussed further below. The following provides a discussion of the most significant of these sources, including the most notable areas in which we relied on them.

Property & Casualty ("P&C") Insurance Carriers

DIFS issued a statewide data call to all auto insurance carriers that wrote business any time during 2016 through 2024 in order to collect premium, exposure, loss and loss adjustment expense, claim count, rate change, vehicle count, and driver count data for calendar / accident years 2016 through 2024, evaluated as of March 31, 2025. This data was aggregated in a variety of ways, including by zip code, coverage limits, age of named insured, gender of named insured, and marital status of named insured.

The data relied on for our analysis represents 91.8% of the private passenger auto market in Michigan based on 2024 market share.

We relied on this data to estimate the impact of PA 21 & 22 on costs to participants as well as insurers. The data was also used to evaluate the impact of PA 21 & 22 on uninsured motorists as well as some components of the access to care analysis.

Michigan Catastrophic Claims Association

The Michigan Catastrophic Claims Association ("MCCA") was established by the Michigan Legislature in 1978. It reimburses no-fault insurance companies for PIP medical claims paid in excess of a set amount ("MCCA threshold") under policies of insurance providing unlimited lifetime coverage. Currently that amount is $675,000.

We relied on a variety of data from the MCCA, including exposure, loss and loss adjustment expense, claim count, claimant, medical fee schedule savings estimates, and Current Procedural Terminology ("CPT") level payment data evaluated as of June 30, 2025. We also relied on the MCCA's estimates of ultimate loss, loss adjustment expense, and claim counts as of June 30, 2025, obtained from Schedule P of the MCCA's annual statement. We reviewed this analysis for reasonability and found it to be suitable for our purposes. We did not conduct an independent review of the MCCA's unpaid claim liabilities.

This data was used to estimate PA 21 & 22's impact on cost, consumers, and access to care.

State of Michigan Medicaid

We utilized historical enrollment and claims information from January 1, 2017 through July 31, 2025 for the State of Michigan Medicaid program. The member level data was aggregated at various levels to assist in identifying the cost and utilization of medical and pharmacy services for individuals involved in auto accidents. We summarized annual utilization and benefit expense related to auto accidents (identified through ICD-10 (International Classification of Diseases, 10th Revision) diagnosis codes), identifying the number of unique individuals impacted and their demographics. As the state's certifying actuary for the Medicaid program, we were provided approval from the State of Michigan, Department of Health and Human Services to utilize the data for purposes of this study.

Medicare

Through our agreement with the Centers for Medicare & Medicaid Services ("CMS"), we utilized Medicare Fee-for-Service ("FFS") data for both hospital and professional claims to help assess the cost and utilization of services for individuals involved in an auto accident. This analysis was limited to Medicare enrollees in the State of Michigan. The data was aggregated at levels compliant with our data use agreement and reviewed by CMS prior to including any analysis for purposes of this report.

Commercial Health Insurance

Milliman utilized two commercial data sets to provide a comparison point against other data sources utilized in this report. The commercial insurer experience was used to calculate the cost per service and utilization of certain medical services. The two data sources were as follows:

- Consolidated Health Cost Guidelines Sources Database ("CHSD") - A proprietary data set containing commercially insured experience that was limited to members residing in the State of Michigan.
- Merative MarketScan® Research Database - Provides deidentified, longitudinal, patient-level claims and specialty data. The MarketScan family of databases consists of three core claims databases, a hospital discharge database, as well as several linked databases, data sets and files that combine claims data with other patient and employee data. Information was limited to members residing in the State of Michigan.

Independent Statistical Service, Inc. Fast Track Plus™

We relied on auto insurance frequency and severity trend data from Independent Statistical Service, Inc.'s Fast Track Plus™ ("Fast Track") for private passenger auto as of December 31, 2019 and December 31, 2024. This data was used to inform inflation rates and adjustments for changes in driving behavior due to the COVID-19 pandemic.

Department of Insurance and Financial Services

We were provided with complaints submitted to DIFS during calendar years 2021 through 2024 related to auto insurance access to care issues. Under state law, investigations or examinations are confidential. Fraud investigation files are considered confidential under MCL 500.6302, and insurance investigations are confidential under MCL 500.222 and 500.1246. This data was among the data used to evaluate the impact of PA 21 & 22 on access to care. We were also provided with DIFS' Section 306 Budget Report, which we relied on for, pursuant to Section 2111f of the Code, MCL 500.2111f, the weighted average aggregated PIP rate change for policies subject to the coverage limits under Section 3107c (1)(a) to (d) of the Code, MCL 500.3107c.

Department of State

The Michigan Department of State provided registered vehicle and licensed driver counts by zip code and on a statewide basis from 2016 through 2024. These counts were generally evaluated as of December 31st of each year. In instances when an evaluation as of December 31st was not available, the Department of State provided the closest evaluation to December 31st as possible. This data was used to evaluate the impact of PA 21 & 22 on uninsured motorists in Michigan.

Other Sources

In addition to the above sources, we relied on various ad-hoc sources for additional data. For instance, we used rate filing and National Association of Insurance Commissioners ("NAIC") annual statement data obtained from S&P Global Market Intelligence, information from a variety of publicly available research studies and news articles, legislation, and summaries of court cases, among others. A complete list of publicly available sources used can be found in the citations as well as the References section of this report.

Impact of COVID-19 on Auto Insurance

The implementation of PA 21 & 22 coincided with the height of the COVID-19 pandemic. During this time, driving behavior across the U.S. was disrupted due to stay-at-home orders, work-from-home policies, and essential worker mandates, which reduced the number of overall miles driven in Michigan and the rest of the U.S.[18] As a result, fewer auto accidents occurred during this period.[19] Because auto insurance is priced based on expectations of future costs, the rate levels approved by regulators prior to COVID-19 did not anticipate this lower-than-expected level of claim activity. To compensate insureds for this decrease in claim frequency, the State of Michigan directed auto insurers to issue premium refunds or credits on renewal premiums.[20] As a result, any measurement of the initial impact of PA 21 & 22 using comparisons of actual average auto insurance premiums from 2019 through 2022 would include these refunds and credits and would be biased by the impact of the pandemic.

At the same time, the COVID-19 pandemic triggered significant economic disruptions. Stay-at-home orders and essential worker mandates led to global supply chain interruptions. These orders along with newly prevalent work-from-home capabilities created notable shifts in the labor market, including the phenomenon known as the "Great Resignation" in which many workers left their employers for higher paying opportunities.[21] These changes contributed to high levels of inflation with the prices of vehicle repairs, replacement parts, labor, and medical costs rising sharply during this time, which in turn increased the cost of auto insurance across the U.S.[22] While PA 21 & 22 included measures to control PIP costs, it did not make Michigan immune to the inflationary economic environment during this time. As a result, auto insurers filed for substantial rate increases between 2022 and 2024 to cover these increased costs and ensure their rates met applicable statutory standards.

The combined impact of the effects of the COVID-19 pandemic and PA 21 & 22 can be seen in Figure 3 below, which summarizes the actual average auto insurance premiums per vehicle (all coverages combined) in Michigan by year from 2016 through 2024. Prior to the implementation of Michigan's no-fault reform, the average auto insurance premium per vehicle in Michigan rose steadily year-over-year, with average approved rate changes in Michigan aligning with those approved across the U.S. Following the implementation of PA 21 & 22, the average approved rate change in Michigan lagged behind the U.S. average approved rate change until 2024, which suggests that PA 21 & 22 suppressed costs and resulting rate changes during this period. This is reflected in the average premium per vehicle, which flattened from 2019 to 2020 and decreased thereafter through 2022. After 2022, heightened levels of inflation following the onset of the COVID-19 pandemic resulted in significant increases in the average premium per vehicle.

In order to more properly evaluate the impact of PA 21 & 22, it is necessary to control for these estimated effects. These adjustments are described in more detail in the Technical Appendix section of this report.

[18] *Traffic Volume Trends* (2019 - 2025). Traffic Volume Trends. Office of Highway Policy Information. Retrieved from U.S. Department of Transportation Federal Highway Administration.

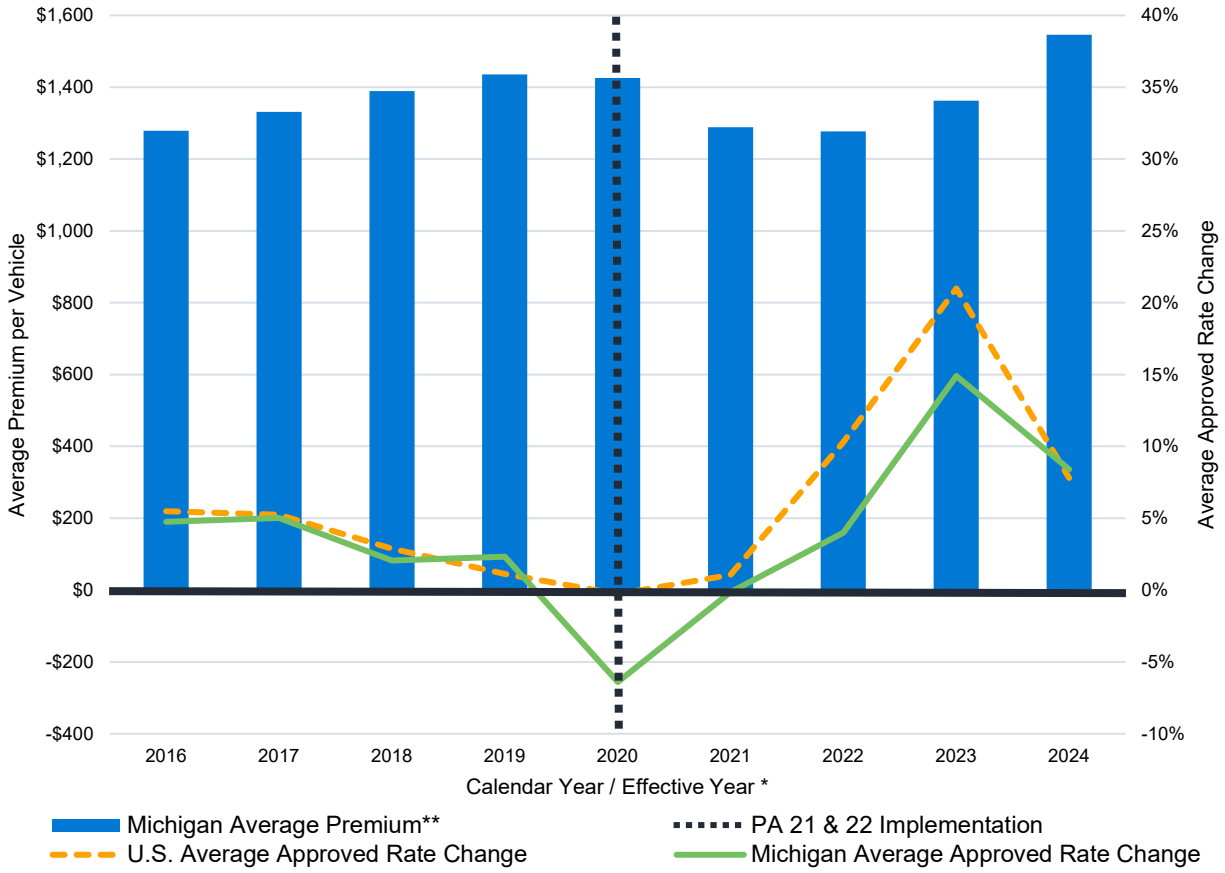
[19] Independent Statistical Service's Fast Track Plus™ Private Passenger Automobile data as of December 31, 2019 and December 31, 2024

[20] Michigan Department of Health & Human Services. *Governor Whitmer, Department of Insurance and Financial Services Announce Order Requiring Auto Insurance Refunds Due to COVID-19*. (2020, June 2). https://www.michigan.gov/coronavirus/news/2020/06/02/governor-whitmer-department-of-insurance-and-financial-services-announce-order-requiring-auto-insur

[21] Gittleman, M. (2022, July). The *"Great Resignation" in perspective*. Monthly Labor Review. https://doi.org/10.21916/mlr.2022.20

[22] Wells, C. (2024, December 12). *Insurance premiums are rising, even as inflation cools. Here's why.* Minnesota Public Radio. https://www.marketplace.org/story/2024/12/12/insurance-premiums-are-rising-even-as-inflation-cools-heres-why

FIGURE 3: MICHIGAN AVERAGE AUTO INSURANCE PREMIUM PER VEHICLE BY CALENDAR YEAR



*Average premium shown by calendar year. Average rate changes shown by year in which rates went into effect.

** The average premium shown was calculated using earned premium, which represents the portion of premium corresponding to the period when coverage was actually provided. This accounts for amounts refunded to consumers due to policy cancellations, as well as premiums for periods of the policy that have not yet occurred as of the evaluation date of the data.

Note: Because the premiums shown are on an earned basis, there is roughly a six month-to-one year lag between when rate changes go into effect and when those changes manifest in the average earned premium data.

Source: Average Michigan auto insurance premiums based on data reported by companies writing private passenger auto insurance in Michigan evaluated as of March 31, 2025. Includes personal injury protection, liability, and physical damage coverages and excludes miscellaneous coverages such as rental and towing. Represents 91.8% of the Michigan private passenger auto insurance market in terms of 2024 earned premium and includes private passenger types only. Rate change data based on data obtained from S&P Global Market Intelligence.

Impact of Reform on Consumers

Our analysis of the impact of PA 21 & 22 on consumers included a study of the impact of PA 21 & 22 on auto insurance premiums paid by consumers as well as how PA 21 & 22 influenced the amount of coverage purchased. These two pieces are interrelated.

Impacts on access to care and to healthcare providers as well as the reform's impact by participant demographic–including the uninsured population–are discussed in the Impact of Reform on Consumers by Demographic and Impact of Reform on Uninsured Motorists sections of this report.

METHODOLOGY TO ESTIMATE IMPACT ON PREMIUMS

As discussed earlier, it is not possible to accurately measure the effects of PA 21 & 22 by simply comparing actual average pre- and post-reform premiums because the period during which the reform was implemented and thereafter was heavily impacted by the COVID-19 pandemic. Therefore, to properly measure PA 21 & 22's impact on costs to consumers, it is necessary to compare estimates of what auto insurance premiums would have been in post-reform years without the implementation of PA 21 & 22 to the actual premiums charged.

Estimating what auto insurance premiums would have been without PA 21 & 22 requires making several assumptions: how insurance companies would have measured their needed annual rate changes (particularly regarding their responsiveness and handling of assumptions related to COVID-19 and resulting inflation), what rate changes management would have chosen to implement, and what rate changes would have been approved by DIFS. In practice, these would have differed from company to company. Our analysis therefore relied on the following assumptions:

- On average, industry auto insurance premiums would have changed year-over-year at rates equal to inflation.
- There is a two-year lag in between when actual year-over-year costs increased due to inflation and when companies would have been able to measure, implement, and realize these changes in the premiums actually paid by consumers.[23]
- Due to the above lag and the expectation that driving patterns would return to their pre-COVID levels, companies on average did not adjust their to-be-implemented 2024 rates for suppressed claim frequency levels observed in 2022.
- Actual premium in 2024 does not include any refunds or renewal credits due to COVID-19.

Accordingly, to estimate what auto insurance premiums would have been had PA 21 & 22 not been implemented, we trended Michigan industry average auto insurance premiums in 2019 for inflation for each coverage based on year-over-year cost changes measured from 2017 through 2022. To do this, we used the same inflation rates that were selected for our analysis on the impact of the reform on costs to auto insurance companies, discussed in more detail in the Technical Appendix.

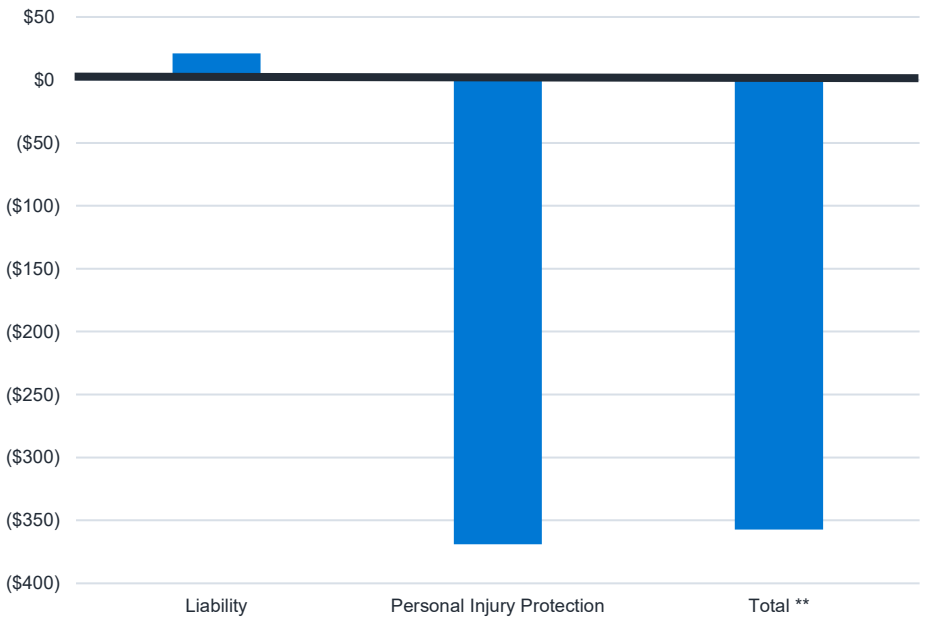
IMPACT OF REFORM ON AUTO INSURANCE PREMIUMS

As shown in Figure 4 below and further detailed in Appendix A, we estimate PA 21 & 22 reduced the overall average auto insurance premium per vehicle in Michigan by $357, or 18.8%. These savings are driven largely by PIP, for which the average premium per vehicle is estimated to have decreased by $369, or 44.7%, due to the reform. Breaking down this change in average premium per vehicle by PIP component (PIP net of MCCA, MCCA assessment, MACP assessment, and Excess Attendant Care) is difficult, as the savings by component are dependent on policyholders' specific coverage selections.

[23] When cost levels change at a rate different than anticipated, there is an operational lag between when insurance companies can measure this change and account for it in future premiums. For example, a company that measures the year-over-year cost changes from 2019 to 2020 would only be able to do so after the data is available (likely in 2021). Then, the company would need to complete an actuarial rate indication analysis, obtain buy-in from management on the proposed rate changes, process and test the proposed rate changes in IT systems, prepare and submit a rate filing regarding the proposed changes, obtain regulatory approval from DIFS, and implement the changes for renewing and new policies. Thus, we estimate it takes multiple years between when shifts in inflation patterns occur and when companies can realize these changes in earned premium.

Comparably small increases in Liability partially offset the savings from PIP, largely driven by the change in the required minimum offered BI limits mandated by PA 21 & 22. We estimate that PA 21 & 22 increased the cost of Liability coverage by $21, or 6.5%. Physical Damage was not materially impacted by PA 21 & 22.

FIGURE 4: ESTIMATED CHANGE IN AVERAGE AUTO INSURANCE PREMIUM PER VEHICLE DUE TO REFORM*



* Measured as the dollar difference in average 2024 premium and average 2019 premium trended for inflation to 2024.
**Excludes rental, towing, and other miscellaneous coverages. Includes physical damage coverages, which were minimally impacted by the reform.

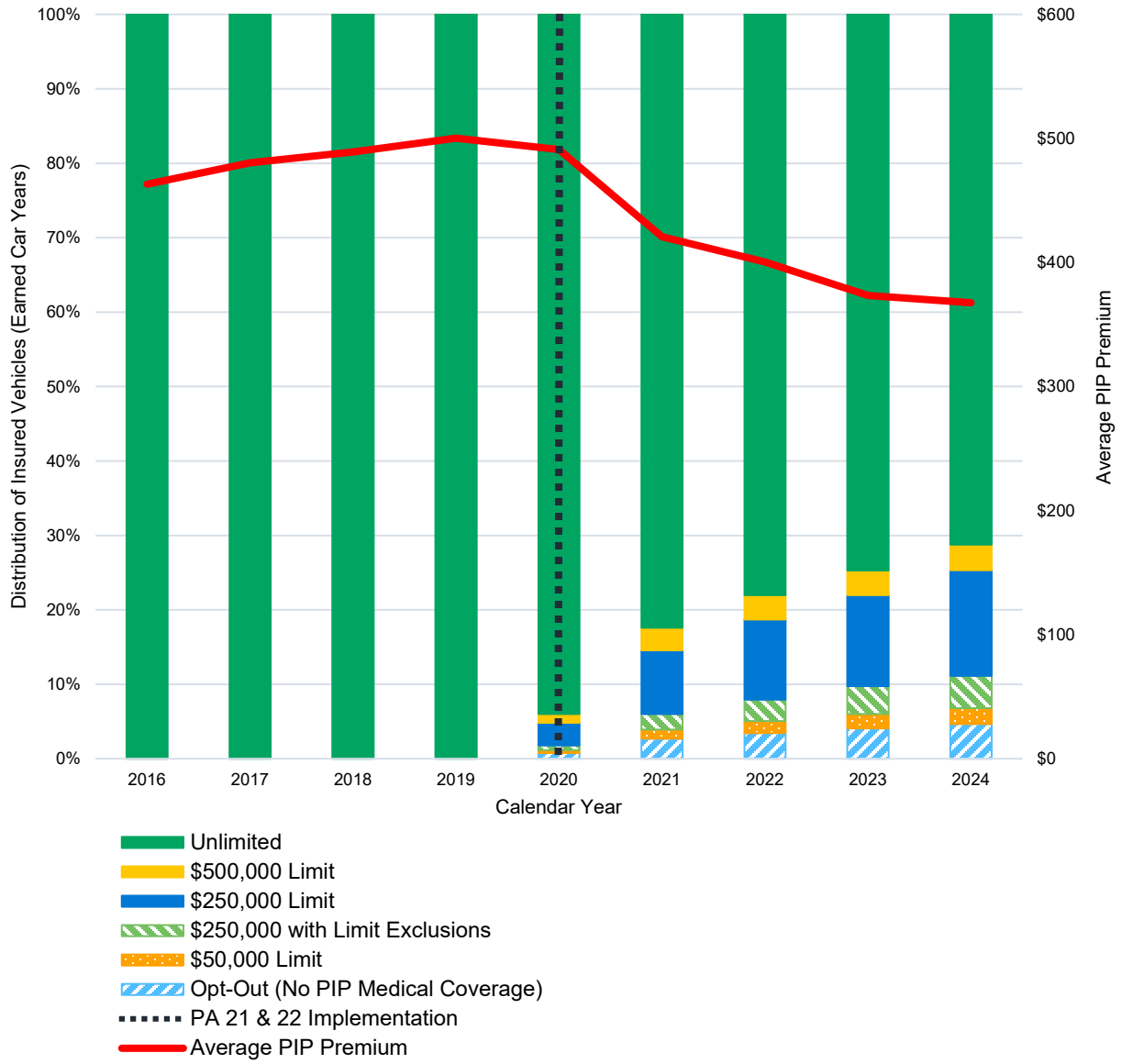
Source: Based on data reported by companies writing private passenger auto insurance in Michigan evaluated as of March 31, 2025. Represents 91.8% of the Michigan private passenger auto insurance market in terms of 2024 earned premium and includes private passenger types only.

IMPACT OF REFORM ON AMOUNT OF COVERAGE PURCHASED

Personal Injury Protection

PA 21 & 22 introduced the option for participants to choose limited PIP coverage or, in certain circumstances, to opt-out of PIP medical coverage entirely. As mentioned before, Michigan previously required all drivers to purchase unlimited PIP medical coverage, and it is the only state in the country where this level of coverage is available. As shown in Figure 5 below, most participants maintained unlimited coverage after the reform, the proportion of participants who have selected limited PIP coverage or who have opted-out of PIP medical entirely has increased each year since PA 21 & 22's implementation. In 2021, of the total insured vehicles in Michigan, 17.6% selected a PIP coverage option other than unlimited coverage. This proportion has grown by roughly 3.0% to 4.5% annually, with 28.8% of total insured vehicles having limited PIP medical coverage or opted-out in 2024. While this trend was consistent across all PIP limit options, the $250,000 limit experienced the largest nominal growth during this period, with 8.6% of all insured vehicles maintaining this limit in 2021 to 14.2% in 2024.

FIGURE 5: DISTRIBUTION OF INSURED VEHICLES BY SELECTED PIP LIMIT & CALENDAR YEAR



Note: Average premiums exclude MCCA assessment and deficit as well as Excess Attendant Care premium.

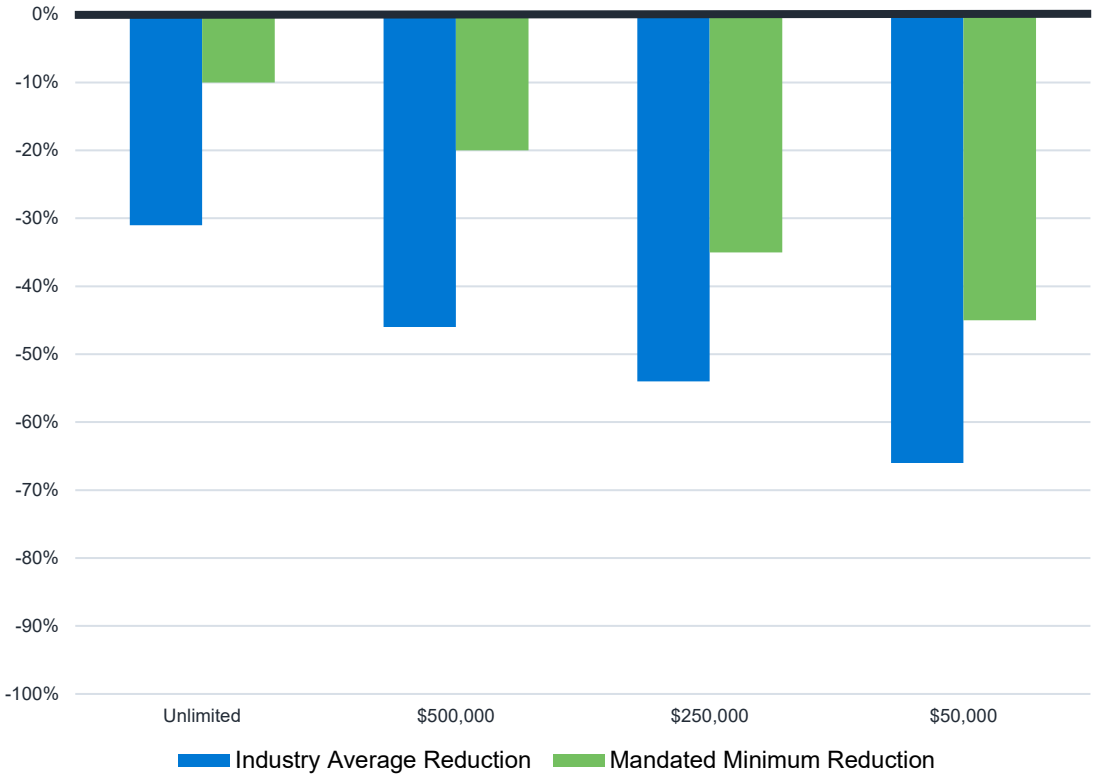
Source: Based on data reported by companies writing private passenger auto insurance in Michigan evaluated as of March 31, 2025. Represents 91.8% of the Michigan private passenger auto insurance market in terms of 2024 earned premium and includes private passenger types only.

The increase in number of individuals having limited PIP medical coverage or opted-out—among other changes implemented with PA 21 & 22—has contributed to the decrease in average PIP premium post-reform. Since 2019, the actual average PIP premium (excluding the MCCA assessment and Excess Attendant Care premiums but including premium for non-medical PIP benefits) has decreased by 26.5% (as measured by 2024 average premiums). This amount reflects savings due to the average selected PIP limit, medical fee schedule, and order of priority changes.

MCL 500.2111f(2) of PA 21 & 22 mandated that auto insurers reduce average PIP medical premium rates per vehicle by designated minimum amounts relative to PIP premium rates that were in effect as of May 1, 2019 (pre-reform). Auto insurers are required to measure and report these savings to DIFS. Figure 6 shows these overall statewide

industry average PIP medical premium rate reductions as reported by DIFS in its September 30, 2025 Sec. 306 Budget Report.[24] For comparison purposes, also shown are the minimum reductions mandated by PA 21 & 22. Premium rate reductions for those who opt-out of PIP medical coverage were unavailable.

FIGURE 6: OVERALL STATEWIDE INDUSTRY AVERAGE PIP MEDICAL PREMIUM RATE REDUCTIONS*



*Relative to rates in effect as of May 1, 2019

Source: Based on Sec. 306 Budget Report as of September 30, 2025 provided by DIFS.

The reductions above reflect the combined savings of coverage limits, the medical fee schedule, order of priority, and MCCA assessment. The discussion below breaks down the effects of several of these components on premium.

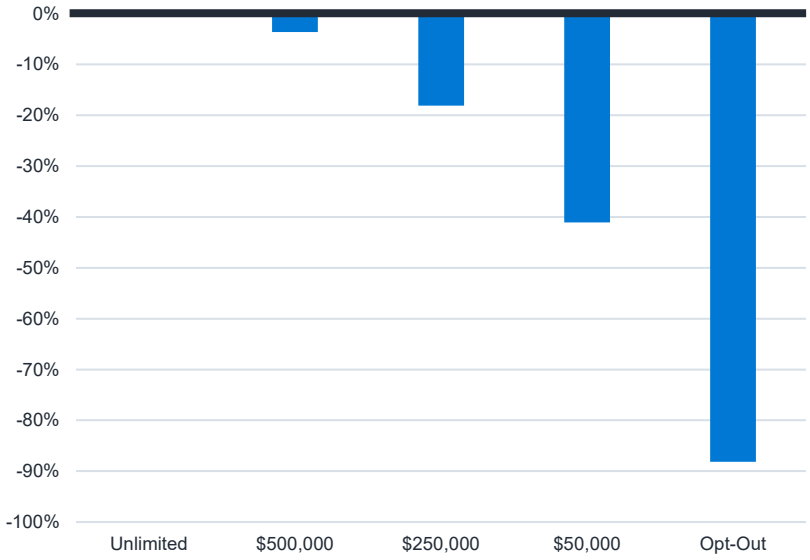
Figure 7 below illustrates how much on average individual consumers save on their PIP premium due to their selected PIP limit for the portion of PIP covered by auto insurers. These amounts are stated relative to what would have been charged for unlimited coverage and are based on rates in effect as of July 2025.[25] Note that the amounts shown reflect savings on the entire PIP premium (including premium for non-medical benefits) and do not reflect savings on premium due to the portion of PIP covered by the MCCA (i.e., the MCCA assessment). The total premium savings increase when considering that insureds who select a coverage option other than unlimited forgo having to pay the MCCA assessment for anticipated new claims, which as of year-end 2024 was $70 per insured vehicle. They

[24] Office of Insurance Rate and Forms (2025, September 30). *Sec 306 Budget Report.* Michigan Department of Insurance and Financial Services.

[25] Amounts represent savings solely due to PIP limit selection, controlled for other risk characteristics. Actual historical average premiums by PIP limit will include differences in premiums due to other risk characteristics to the extent that these characteristics are correlated with the coverage limits selected by insureds. For example, data reported by auto insurers indicates that individuals who select lower PIP limits tend to have higher average claim frequencies. This implies that individuals who select lower limits are on average more likely to have accident surcharges compared to individuals who select unlimited coverage. Therefore, comparing the historical average premiums of these groups would capture not only the impact of the selected limit but also differences arising from the average accident surcharge (and likely other risk factors as well).

also do not fully reflect savings from other aspects of PA 21 & 22, including the medical fee schedule and order of priority.

FIGURE 7: AVERAGE INDIVIDUAL SAVINGS* IN PIP PREMIUM DUE TO PIP LIMIT SELECTION RELATIVE TO UNLIMITED COVERAGE BASED ON RATES IN EFFECT AS OF JULY 30, 2025



* Only reflects savings due to selected PIP limit on portion of PIP covered by auto insurers, stated relative to what would have been charged for unlimited coverage. Does not reflect the MCCA assessment nor fully reflect other PIP savings due to medical fee schedule and order of priority.

Source: Based on Michigan auto insurance rate filings from companies representing 63.5% of the Michigan auto market. Obtained from S&P Global Market Intelligence. Reflects rates in effect as of July 30, 2025.

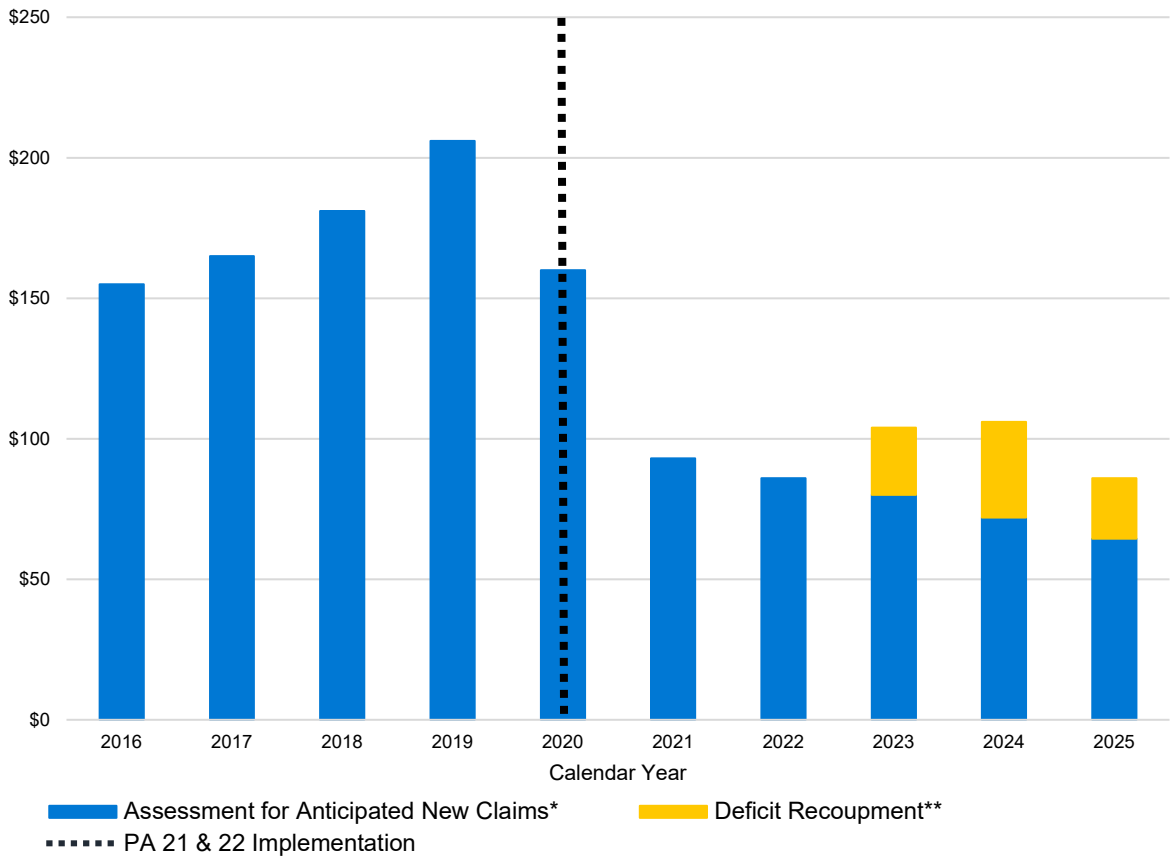
Insureds on average save roughly only 3.6% on their PIP premium (for the portion of PIP coverage provided by auto insurers, exclusive of the MCCA assessment) when selecting the $500,000 PIP limit. This is partly due to the low probability of a claim exceeding $500,000. Further, when losses on unlimited policies exceed $500,000, auto insurers are only liable for paying losses up to the MCCA threshold, which in 2024 was $635,000. This means the amount of potential losses eliminated from an auto insurer's retention is at most $135,000 per claim. Additionally, the $500,000 PIP limit applies on a per-person basis whereas the MCCA threshold applies on a per-accident basis. This means in some situations auto insurers may end up retaining more losses for a policy with limited PIP medical coverage than they would have retained had the policy been written for unlimited coverage. For example, if two consumers covered by the same policy are involved in an accident where each have medical costs exceeding $500,000, the auto insurer would retain $1,000,000 for the claim. Had the policy been written with unlimited coverage in 2024, the auto insurer would have retained $635,000 (all losses above this would have been retained by the MCCA). Accordingly, most of the savings insureds experience when selecting the $500,000 PIP limit is due to foregoing having to pay the MCCA assessment, or, in other words, is due to savings in expected costs above the MCCA threshold.

As the PIP limit decreases, more of the expected costs borne by auto insurers are eliminated. For the $250,000 limit, insureds save on average roughly 18.1% on their PIP premium. Insureds who select the $50,000 limit or opt-out of PIP medical entirely save on average 41.1% and 88.2%, respectively. Note that insureds who opt-out of PIP medical entirely do not save 100% on their overall PIP premium as they are still required to have non-medical PIP coverage (e.g., work loss, replacement services, and funeral and burial expense).

As mentioned above, participants who select a PIP coverage option other than unlimited also forgo having to pay the MCCA assessment for anticipated new claims (though they still are required to pay the MCCA deficit recoupment assessment). However, even participants who select unlimited coverage have experienced reductions in premiums,

as the MCCA assessment has decreased post-reform due to the medical fee schedule and order of priority changes of the reform. This is outlined in Figure 8 below, which shows the MCCA assessment for anticipated new claims and deficit recoupment over time.[26] Note that all insureds pay the MCCA's deficit recoupment assessment, even if unlimited coverage is not selected.

FIGURE 8: MCCA ASSESSMENT FOR ANTICIPATED NEW CLAIMS* AND DEFICIT RECOUPMENT PER INSURED VEHICLE BY CALENDAR YEAR**



*Applies only to policies selecting unlimited PIP coverage.
**Applies to all policies regardless of selected PIP coverage.

Source: Based on assessment data from MCCA website.

The MCCA assessment steadily increased in the years leading up to the reform. Following the reform, the MCCA assessment for anticipated new claims has decreased by $142 per insured vehicle since 2019. Including the MCCA deficit recoupment assessment, the total MCCA assessment has decreased by $120 per insured vehicle. Because the MCCA assessment applies on a per insured vehicle basis, the overall policy-level savings for policies with multiple vehicles will be greater. Note that in 2022 consumers received a $400 refund from the MCCA which is not reflected in the figure above.

[26] Michigan Catastrophic Claims Association. (n.d.). *Assessment Data*. https://michigancatastrophic.com/assessment-data/

Excess Attendant Care

To help consumers who selected limited PIP coverage manage potential attendant care expenses, PA 21 & 22 allows those consumers the option to purchase additional attendant care coverage that applies in excess of their selected PIP limit (Excess Attendant Care). Despite the relatively low average cost, only a small percentage of insureds have voluntarily bought this coverage when eligible. Figure 9 demonstrates this, which shows the Excess Attendant Care take-up-rate (proportion of insured vehicles for each PIP coverage option that purchased Excess Attendant Care coverage) by PIP limit and calendar year.[27]

FIGURE 9: TAKE-UP-RATE OF EXCESS ATTENDANT CARE COVERAGE BY PIP LIMIT & CALENDAR YEAR

	PIP LIMIT					
CALENDAR YEAR	$50,000	$250,000 W/ EXCLUSION	$250,000	$500,000	TOTAL (AVERAGE)	AVERAGE EXCESS ATTENDANT CARE EARNED PREMIUM
2020	4.7%	5.2%	3.1%	8.2%	4.6%	$18
2021	5.7%	5.5%	4.9%	10.7%	6.3%	$18
2022	6.6%	6.4%	4.8%	10.2%	6.2%	$18
2023	7.0%	6.7%	4.6%	10.1%	6.1%	$16
2024	4.4%	5.1%	4.1%	10.0%	5.2%	$14

Source: Based on data reported by companies writing private passenger auto insurance in Michigan evaluated as of March 31, 2025. Take-up-rates based on policies eligible to purchase Excess Attendant Care (those who selected limited PIP coverage).

While take-up rates for Excess Attendant Care were marginally higher in 2021 through 2023 compared to the coverage's initial offering in 2020, take-up rates decreased across all PIP limit options in 2024. In general, participants with the highest underlying PIP limit ($500,000) were consistently more likely to purchase Excess Attendant Care, a trend which was observed across all years.

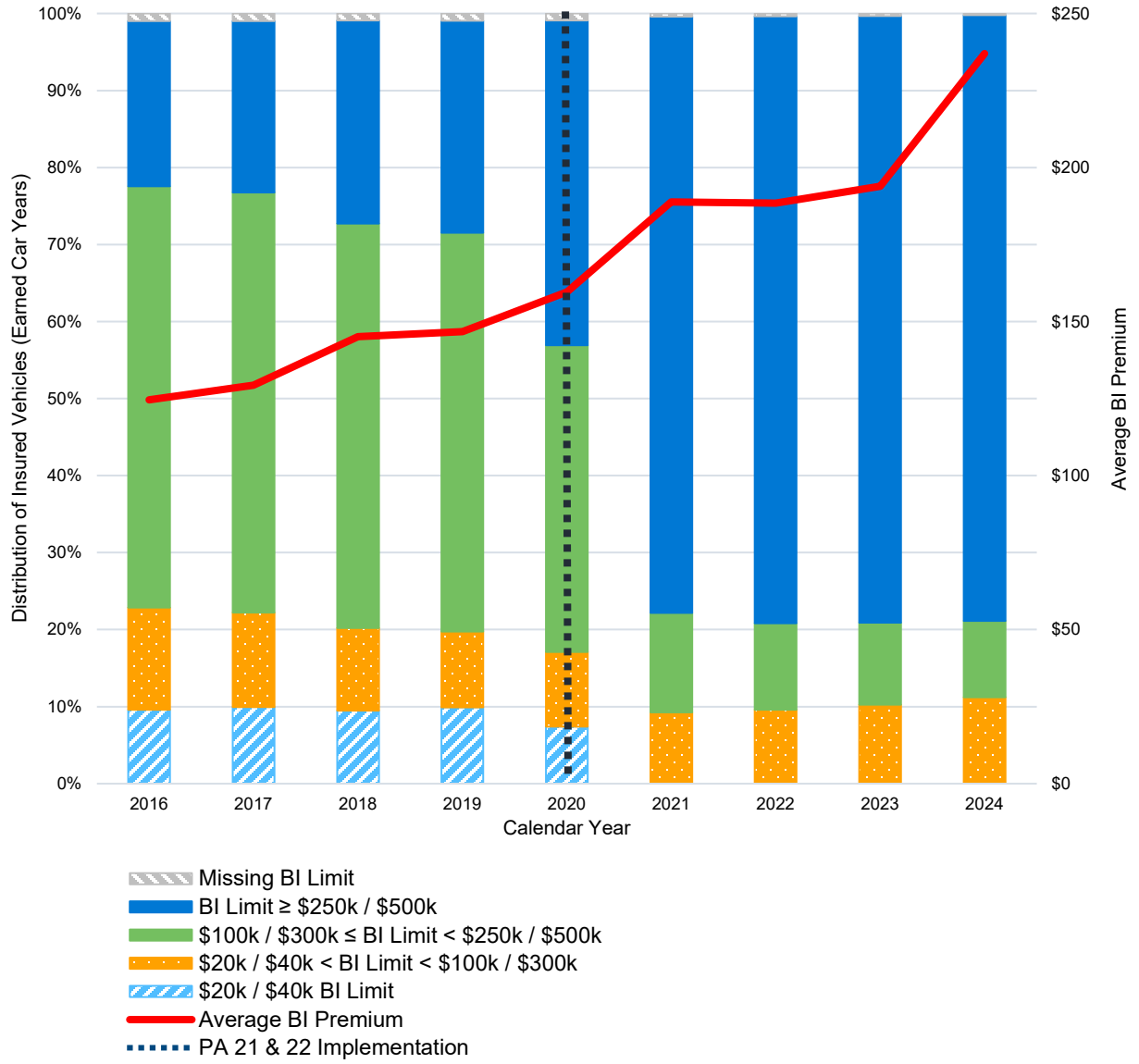
The slight decrease in average earned premium in 2023 and 2024 is due to policyholders gradually choosing lower limits over time. The take-up rates indicate that, although options are available to address potential access to care issues, insureds who choose lower coverage amounts—whether to reduce insurance premiums or because they have health coverage from other sources—are not widely selecting these additional coverage options.

Bodily Injury

Figure 10 shows how consumer's selection of BI limits and corresponding average earned BI premium have changed over time.

[27] It should be noted that one of the largest insurers in the state did not provide separate data for Excess Attendant Care coverage.

FIGURE 10: DISTRIBUTION OF INSURED VEHICLES BY SELECTED BI LIMIT & CALENDAR YEAR



Source: Based on data reported by companies writing private passenger auto insurance in Michigan evaluated as of March 31, 2025. Includes policies with split BI limits only and excludes policies with Combined Single Limits. Represents 91.8% of the Michigan private passenger auto insurance market in terms of 2024 earned premium and includes private passenger types only.

Prior to PA 21 & 22, the proportion of insureds who selected the statutory minimum BI limits remained relatively constant at 10%. Insureds who did not select the statutory minimum limits gradually trended towards higher limits during this period. The rise in the average earned premium during this pre-reform period is therefore a culmination of increases in costs due to inflationary trends as well as insureds selecting higher amounts of coverage.

PA 21 & 22 requires Michigan auto insurance policies to initially offer BI coverage of not less than $250,000 / $500,000. However, insureds are allowed to purchase limits as low as $50,000 / $100,000 with the completion and signing of a form acknowledging understanding of their choice. This had a dramatic effect on selected BI limits post-reform, where roughly 80% of insureds selected limits at or above $250,000 / $500,000 (roughly equivalent to the proportion of insureds who purchased limits at or above $100,000 / $300,000 in 2019). Ten percent of insureds

continued to purchase the lowest limit options, whereas the remaining ten percent of insureds purchased limits at or above $100,000 / $300,000 but less than $250,000 / $500,000.

Because of this large shift towards higher amounts of coverage, the average earned BI premium increased significantly in 2021. The average premium then remained relatively constant through 2023 and then significantly rose again in 2024. While underlying data was not available to determine the cause of the plateau in premiums from 2021 to 2023, it is likely related to the COVID-19 pandemic. During this time, insurance companies experienced delays in court cases and claim litigation, which resulted in claims staying open longer during the pandemic and developing later compared to pre-reform development patterns. These delays likely resulted in insurers underestimating cost increases during this time.

COSTS TO CONSUMERS NOT INCLUDED IN SCOPE OF ANALYSIS

Note that our analysis of the cost of PA 21 & 22 to participants only considers changes in private passenger auto insurance premium costs. As coverage shifts from auto insurance to healthcare coverage, participants will likely incur additional costs accordingly. These may include increases in:

- Out-of-pocket healthcare costs due to the applicability of health insurance deductibles and co-pays.
- Funding requirements for Medicaid and Medicare, which are funded by taxpayers (consumers).
- Premiums for commercial health insurance and employer-sponsored health plans, which are paid for by employees (consumers) and employers. Alternatively, they may select higher deductible, out-of-pocket maximums, or co-pay options to offset cost increases, which would increase out-of-pocket costs to consumers.

Additionally, consumers may experience increased costs due to the following:

- Increase in cost of umbrella insurance premiums.
- Increase in out-of-pocket personal liability costs to the extent that a consumer's BI limits are inadequate. However, the reform tried to address this by increasing BI limits.

These cost increases to consumers were outside the scope of this analysis due to the data limitations, contingencies and uncertainties involved.

Impact of Reform on Consumers by Demographics

Our study of how PA 21 & 22 impacted participants by demographic focused on the following:

- Geography (County);
- Age of named insured; and
- Gender[28] and marital status of named insured.

Other demographics such as race and ethnicity as well as income were unavailable given these attributes are not collected by insurance companies.

Methodology

We replicated our analysis of the statewide impact of PA 21 & 22 on auto insurance premiums for each of the above demographics. In addition to the assumptions listed earlier in the statewide analysis, our analysis by demographic assumes that in calculating what premiums would have been in 2024 without the reform, insurance companies would not have changed their rating plans related to the demographics studied. Put another way, companies would not have changed their rating factors for territory (geography), age of driver, gender or marital status, some of which was required under the reform.

As discussed earlier, it should be noted that while the prohibited rating factor changes of the reform may impact premiums for individual policyholders, they likely had negligible impact on overall premium levels for the industry. This is because most insurance companies manage their overall rate level via a separate actuarial analysis which defines the amount of premium in aggregate (i.e., across all policyholders) that must be collected to cover expected future costs. Changes in how this aggregate amount of premium is allocated to individual policyholders via rating factor changes is typically managed on a revenue neutral basis, meaning while individual policyholders may see their premiums increase or decrease based on changes in rating factors, the total premium collected by an insurer on an aggregate level remains the same.

IMPACT OF REFORM BY COUNTY

PA 21 & 22 had the greatest impact on premium (on both a dollar and percentage basis) in Detroit and the surrounding metropolitan area. This was driven by its impact on PIP coverage, in which policyholders in Wayne County experienced the largest dollar decrease in average PIP premium per insured vehicle. This can be seen in Figure 11 below, which shows the estimated change in average PIP premium per insured vehicle due to the reform by county. Note that these estimates include the MCCA assessments, MACP assessment, and Excess Attendant Care premiums.

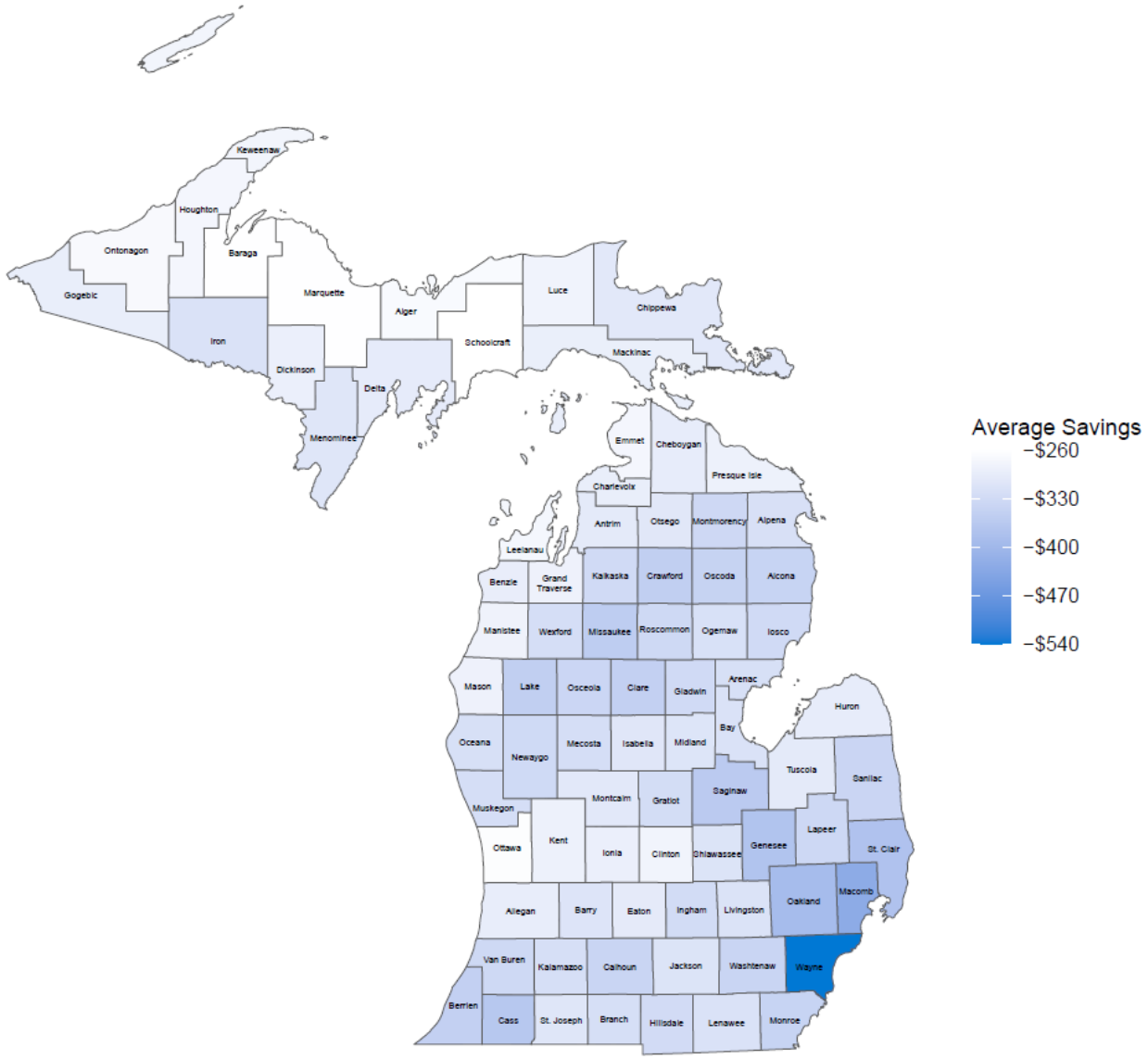
For Liability, the impacts were reversed, with Wayne County experiencing larger premium increases than most other counties.

Because of the magnitude of PIP premium compared to other coverages, the impact of PA 21 & 22 on a total policy premium basis resembled that of PIP, with Wayne County experiencing the largest estimated cost savings of the reform.

Further detail on the impacts by county for PIP can be found in Appendix B.

[28] Note that while PA 21 & 22 prohibited insurers from using sex, our data call to insurers requested gender, as this is the field most commonly recorded by auto insurers.

FIGURE 11: ESTIMATED CHANGE IN AVERAGE PIP AUTO INSURANCE PREMIUM PER VEHICLE DUE TO REFORM* BY COUNTY



* Measured as the dollar difference in average 2024 premium and average 2019 premium trended for inflation to 2024. Excludes rental, towing, and other miscellaneous coverages. Includes physical damage coverages, which were minimally impacted by the reform.

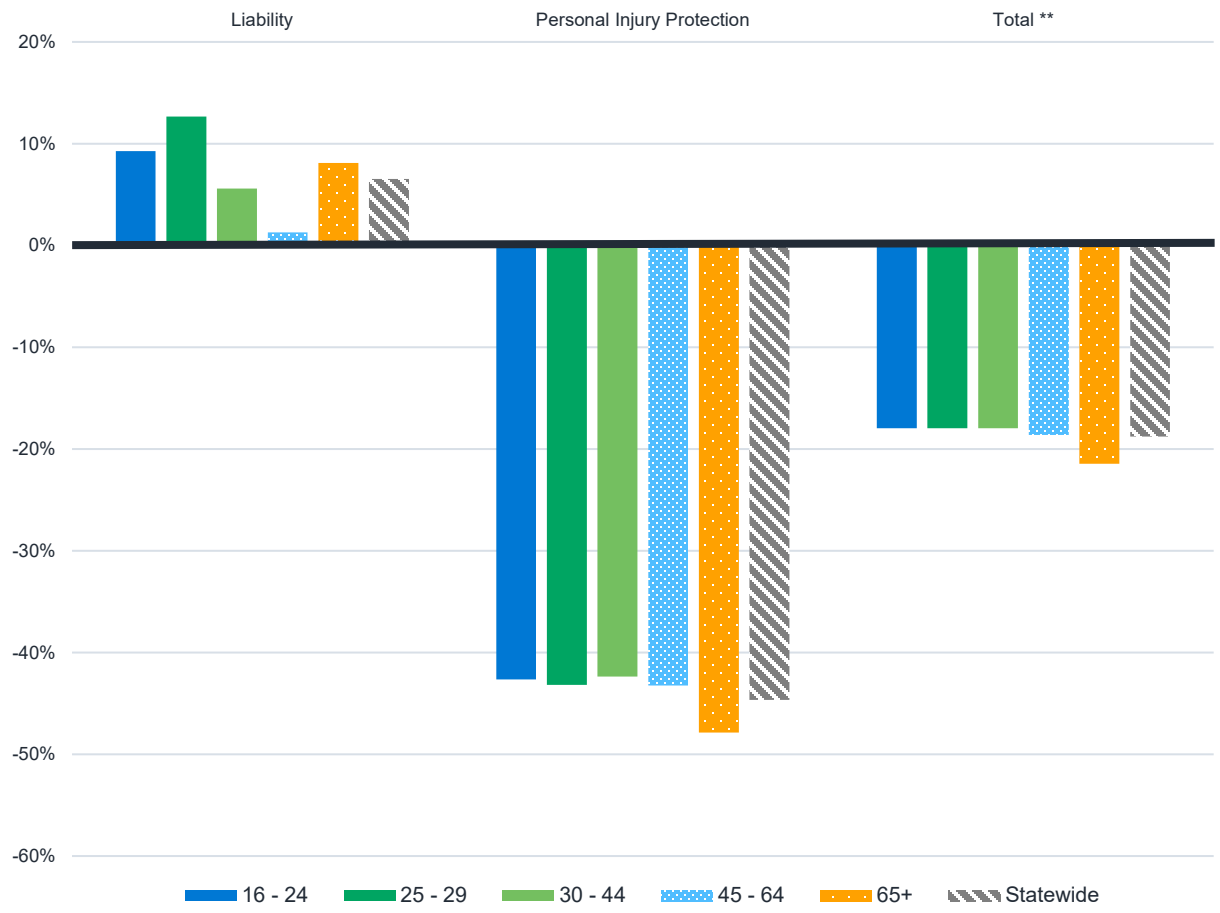
Source: Based on data reported by companies writing private passenger auto insurance in Michigan evaluated as of March 31, 2025. Represents 91.8% of the Michigan private passenger auto insurance market in terms of 2024 earned premium and includes private passenger types only.

IMPACT OF REFORM BY AGE OF NAMED INSURED

Because the eligibility for certain PIP coverage options is tied to the named insured, we reviewed the impact of PA 21 & 22 based on the age of named insured–not based on the individual ages of each driver.

Figure 12 below shows the estimate change in average auto insurance premium per insured vehicle as a result of the reform by age of named insured.

FIGURE 12: ESTIMATED CHANGE IN AVERAGE AUTO INSURANCE PREMIUM PER VEHICLE DUE TO REFORM* BY AGE OF NAMED INSURED



* Measured as the percent difference in average 2024 premium and average 2019 premium trended for inflation to 2024.
**Excludes rental, towing, and other miscellaneous coverages. Includes physical damage coverages, which were minimally impacted by the reform.

Source: Based on data reported by companies writing private passenger auto insurance in Michigan evaluated as of March 31, 2025. Represents 91.8% of the Michigan private passenger auto insurance market in terms of 2024 earned premium and includes private passenger types only. Impacts by age of named insured do not add up to the statewide total due to missing age information for some of the data, including some instances where companies could not provide any data by age of named insured. The companies that provided age of named insured data represent 88.3% of the Michigan private passenger auto insurance market in terms of 2024 earned premium.

For Liability, policies with named insureds under 30 or over 64 experienced larger premium impacts from PA 21 & 22 than the statewide average. This suggests these policies may have carried lower BI limits on average compared to the statewide average prior to the reform. Policies with named insureds between 30 and 44 had impacts in line with the statewide average. Policies with named insureds between 45 and 64 had the smallest impact, which suggests these policies carried higher BI limits on average compared to other policies prior to the reform.

For PIP, most policies experienced similar premium impacts regardless of the age of the named insured, with policies with the named insureds over 64 experiencing slightly larger premium savings than all other age groups. This is likely driven by the opt-out PIP coverage option, which insureds are eligible to choose if they have Medicare.

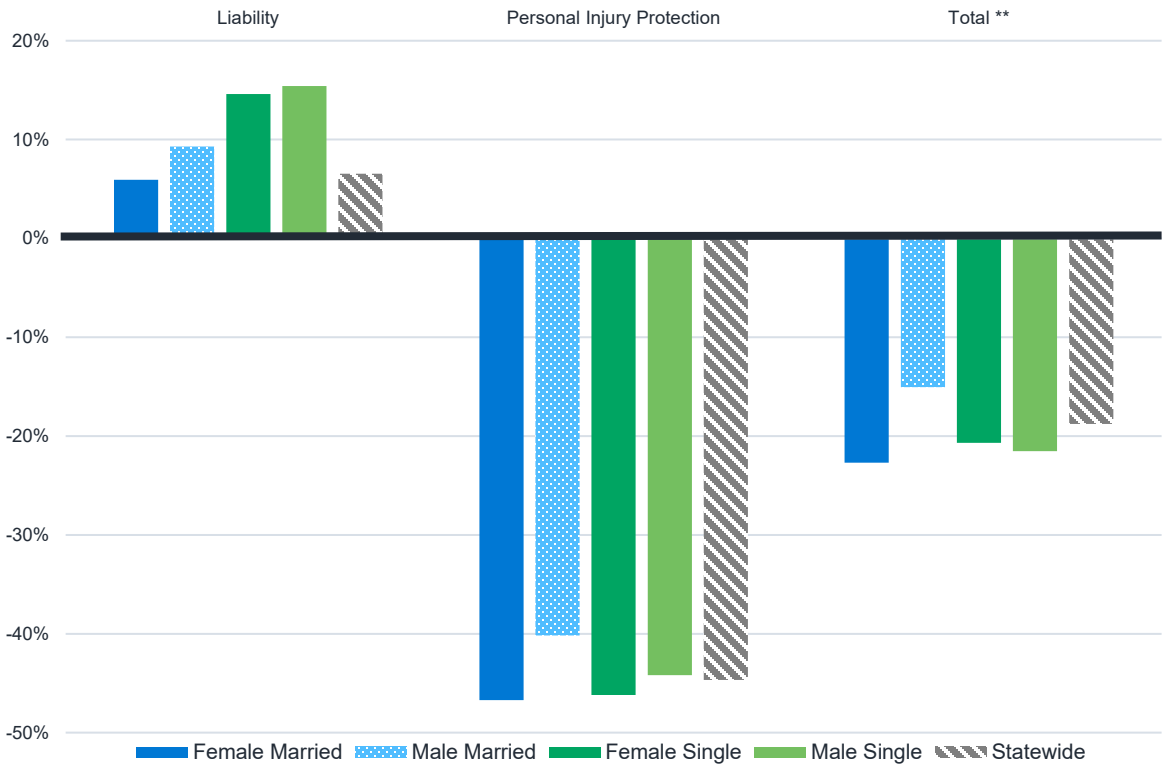
Premium impacts on a total policy basis resembled the relationships across age groups exhibited for PIP. This is due to the magnitude of PIP premiums relative to premium for other coverages.

IMPACT OF REFORM BY GENDER & MARITAL STATUS OF NAMED INSURED

Auto insurance premiums are highly individualized and the Gender and Marital Status of the named insured can be correlated with other household and policy attributes used in the rating of auto insurance. For example, policies where the named insured is married are more likely to have multiple drivers and multiple vehicles on the policy; many auto insurers differentiate premium based on these characteristics. These policies are also more likely to have youthful drivers on them compared to policies where the named insured is single. Accordingly, while the use of Gender and Marital Status was prohibited by the reform, differences measured in impacts of the reform across these demographics likely represent differences driven by other correlated policy attributes.

Figure 13 below shows the estimate change in average auto insurance premium per insured vehicle due to the reform by gender and marital status of named insured.

FIGURE 13: ESTIMATED CHANGE IN AVERAGE AUTO INSURANCE PREMIUM PER VEHICLE DUE TO REFORM* BY GENDER AND MARITAL STATUS OF NAMED INSURED



* Measured as the percent difference in average 2024 premium and average 2019 premium trended for inflation to 2024.
**Excludes rental, towing, and other miscellaneous coverages. Includes physical damage coverages, which were minimally impacted by the reform.

Source: Based on data reported by companies writing private passenger auto insurance in Michigan evaluated as of March 31, 2025. Companies reporting represent 91.8% of the Michigan private passenger auto insurance market in terms of 2024 earned premium and includes private passenger types only. Impacts by gender and marital status combination do not add up to the statewide total due to missing gender or marital status information for some of the data, including some instances where companies could not provide any data by gender or marital status of named insured.. The companies that collect gender and marital status data represent 66.9% of the Michigan private passenger auto insurance market in terms of 2024 earned premium.

On a total (all coverages combined) basis, policies with a single male named insured were impacted approximately the same as policies with a single female named insured. This suggests PA 21 & 22 impacted policyholders similarly by gender when looking only at policies with a single named insured. There was a more notable difference in impacts between genders when looking at married named insureds only. As mentioned previously, this could be due to differences in other attributes.

Impact of Reform on Uninsured Motorists

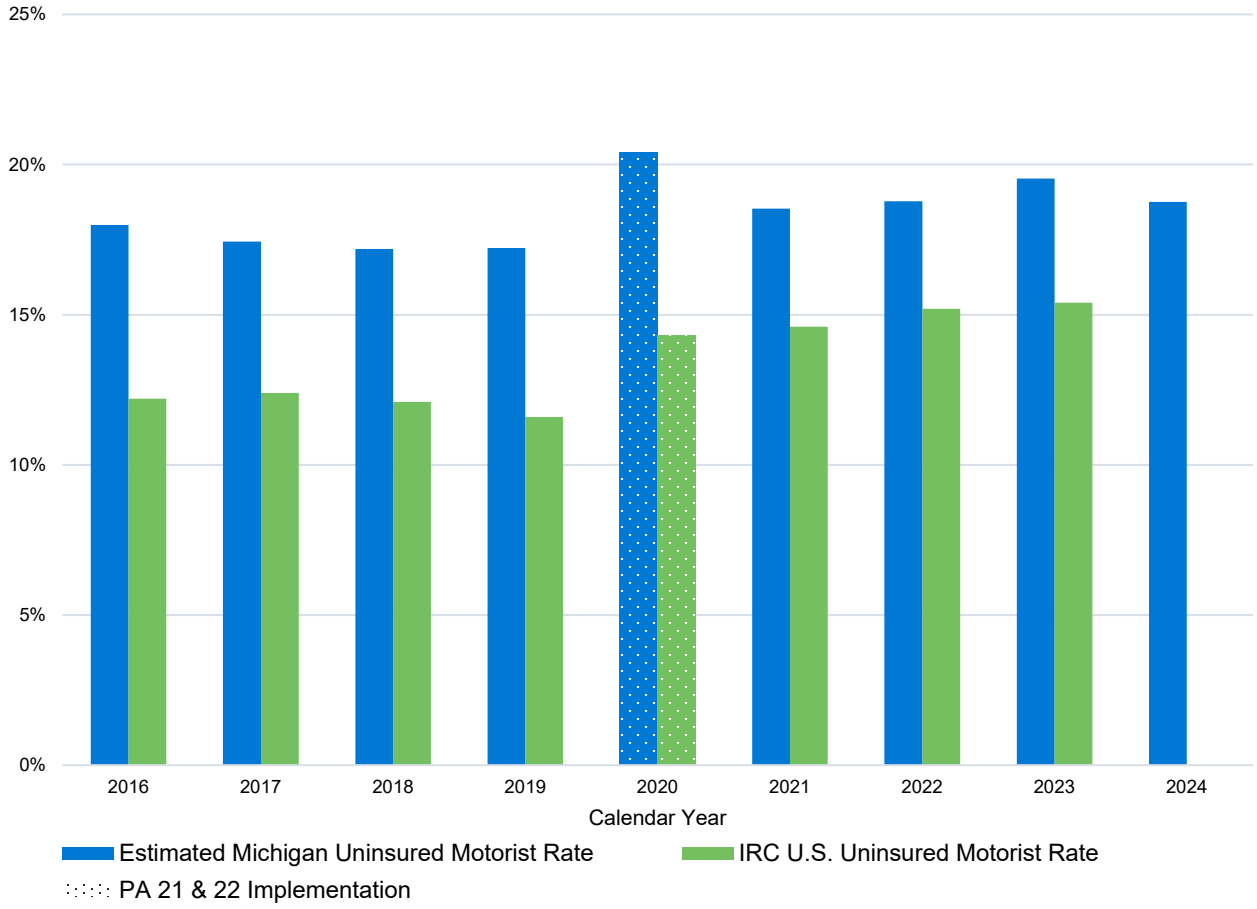
As mentioned earlier, MCL 500.2116(b) created an amnesty period for consumers who did not maintain required auto insurance coverage in the past but were required to do so. During this period, if consumers purchased insurance before January 1, 2022, they could do so without facing penalties. Accordingly, we analyzed the uninsured motorist rates in Michigan and the entire U.S. over time to evaluate whether this and other aspects of PA 21 & 22—such as reductions in premiums and prohibition of certain rating variables—impacted uninsured motorist rates in Michigan.

It is difficult to directly measure the rate of uninsured motorists in any state due to limitations inherent in the available data. As such, to study PA 21 & 22's impact on the uninsured population in Michigan, we relied on multiple methodologies, including publicly available research conducted by the Insurance Research Council ("IRC")[29] as well as our own independent study. A discussion of the methodology relied on for this analysis can be found in the Technical Appendix section of this report, and the analysis exhibits can be found in Appendix C.

DISCUSSION OF RESULTS

Figure 14 below shows how our estimated uninsured motorist rate in Michigan has varied over time since 2016 and how it compares to the U.S. uninsured motorist rate as measured by the IRC.

FIGURE 14: MICHIGAN VS U.S. UNINSURED MOTORIST RATE BY CALENDAR YEAR



Source: Estimated Michigan uninsured motorist rate based on study by the Insurance Research Council and an independent study conducted by Milliman. Estimated U.S. uninsured motorist rate based on study by the Insurance Research Council.

[29] *Uninsured and Underinsured Motorists: 2017 to 2023* (2025, February 20). Insurance Research Council.

While the post-reform rate of uninsured motorists in Michigan is higher than rates prior to the implementation of PA 21 & 22, the increase in Michigan has generally been smaller than the increase experienced across the U.S.

Prior to the reform, uninsured motorist rates in Michigan decreased slightly from around 18.0% in 2016 to 17.2% in 2019. This decreasing pattern was also generally seen in the U.S. uninsured motorist rate. However, uninsured motorist rates for the entire U.S. were significantly lower at around 12.2% in 2016 to 11.6% in 2019.

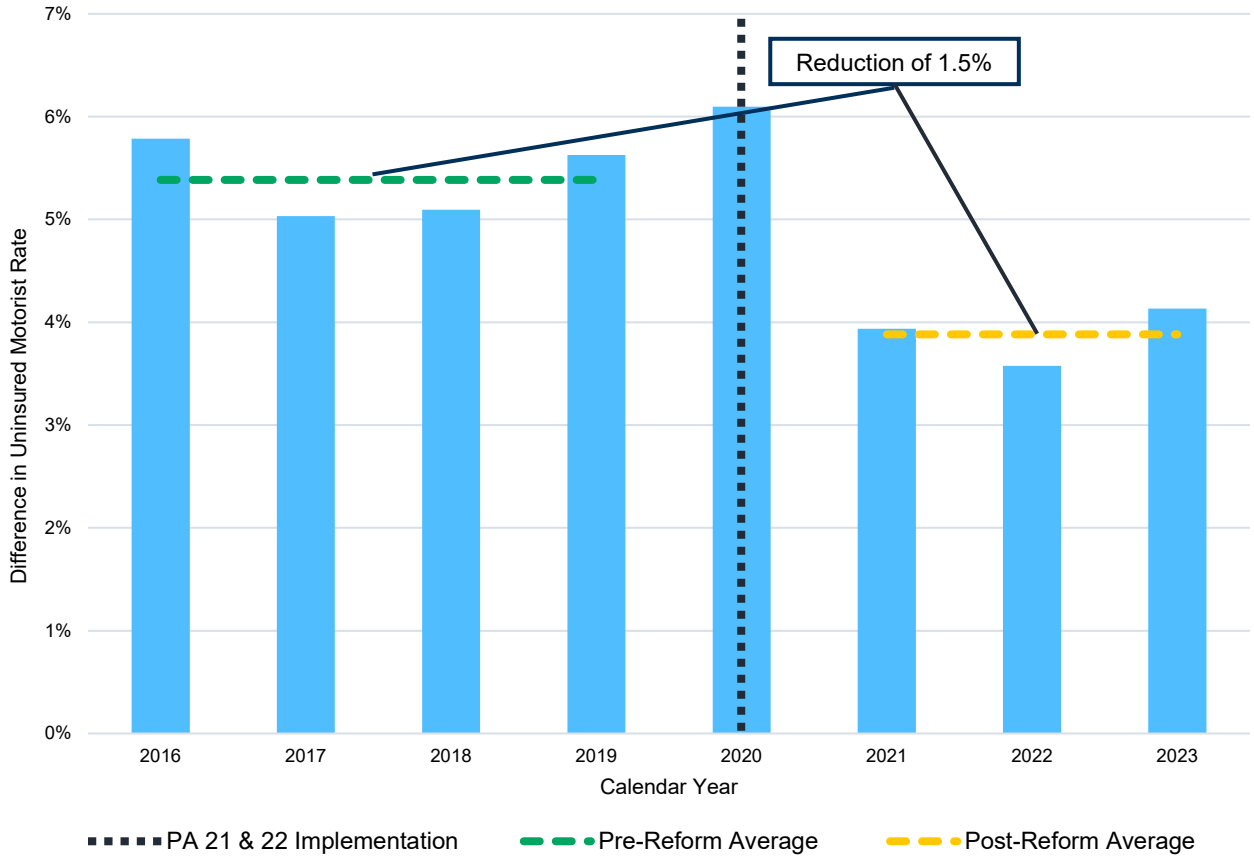
The COVID-19 pandemic had a noticeable impact on the rate of uninsured motorists across the U.S. This is likely due to consumers forgoing auto insurance due to a multitude of reasons, including economic pressure from loss of jobs and shifts in remote work that relieved the need to drive. This uptick in 2020 was observed across all methods and, and according to the IRC, observed in nearly every state.[30]

While the U.S. uninsured motorist rate slightly increased from 2020 to 2021, the Michigan uninsured motorist rate abruptly dropped back to a level more similar to pre-COVID levels. In 2022 and 2023, inflationary pressures following the COVID-19 pandemic mounted and uninsured motorist rates increased across the U.S., including in Michigan. However, the rate of increase in Michigan mirrored that of the increase across the U.S. The uninsured motorist rate stabilized in Michigan in 2024 (U.S. uninsured motorist rates for 2024 are unavailable for comparison).

Our analysis suggests that PA 21 & 22 may have had an impact on suppressing the increase in uninsured motorist rate in Michigan compared to trends exhibited across the U.S. Pre-reform, Michigan's uninsured motorist rates were roughly 5.0% to 5.8% higher than U.S. rates. Post-reform, this difference dropped to roughly 4.0%. This suggests that the reform may have decreased the uninsured motorist population to a level roughly 1.0% to 2.0% lower than it otherwise may have been had PA 21 & 22 not been implemented. This is outlined in Figure 15 below.

[30] Carrier Management. (2025, March 28). *IRC Finds 1 in 3 U.S. Drivers Are Either Uninsured or Underinsured*. https://www.carriermanagement.com/news/2025/03/28/273576.htm

FIGURE 15: DIFFERENCE BETWEEN MICHIGAN AND U.S. UNINSURED MOTORIST RATE BY CALENDAR YEAR



Source: Estimated Michigan uninsured motorist rate based on study by the Insurance Research Council and an independent study conducted by Milliman. Estimated U.S. uninsured motorist rate based on study by the Insurance Research Council.

Impact of Reform on Costs to Auto Insurance Payers

Our analysis of the impact of PA 21 & 22 focused on its impact on auto insurance costs. In this report, auto insurance costs refers to the following:

- Damages paid to auto accident victims (Loss[31])
- Costs to insurers for handling and processing claims (Loss adjustment expense ("LAE")[32])
- Expenses of insurance companies that vary based on the size of premium on a policy (variable underwriting expenses[33])

Note that auto insurers likely incurred other costs related to the implementation of PA 21 & 22. These include but are not limited to increased IT and systems costs, legal expenses related to compliance and litigation defense, consulting fees, and human resource expenses. These costs were not considered in our analysis but may be substantial.

To estimate PA 21 & 22's impact on auto insurance costs, we evaluated how the average cost per insured vehicle changed pre- and post- reform. Because of the impact of the COVID-19 pandemic and inflation, it is not possible to accurately measure the effects of PA 21 & 22 on costs by comparing nominal average costs per vehicle over time. To properly measure PA 21 & 22's impact on costs to auto insurers, it is necessary to adjust pre-reform and post-reform costs for inflation as well as differences in claims frequencies due to the COVID-19 pandemic. A discussion of the methodology relied on for this analysis can be found in the Technical Appendix section of this report.

IMPACT OF REFORM ON OVERALL AUTO INSURANCE COSTS

As shown in Figure 16 below, we estimate PA 21 & 22 reduced the overall average cost per insured vehicle to auto insurance companies in Michigan by $347, or 19.3%. These savings were driven largely by PIP, the average cost per vehicle for which is estimated to have decreased by $474, or 48.2%.

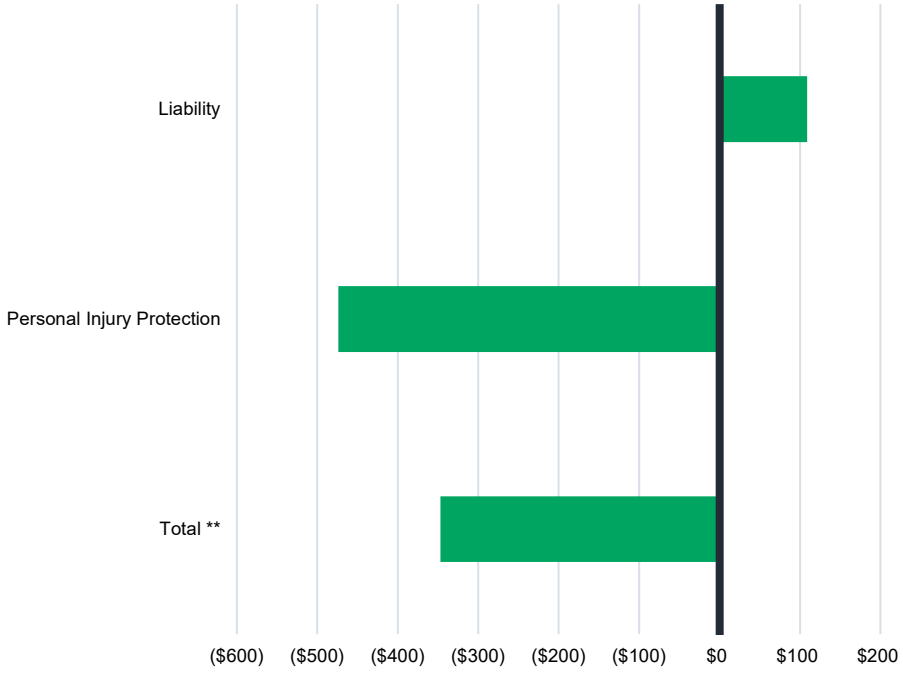
The savings from PIP were offset by Liability, largely driven by the change in minimum offered BI limits mandated by PA 21 & 22. We estimate that PA 21 & 22 increased the cost of Liability coverage for auto insurance companies by $109, or 50.8%. Physical Damage was not materially impacted by PA 21 & 22.

[31] Amount paid or owed to auto accident victims under the provisions of an insurance contract (Werner, G. & Modlin, C. (2016)).

[32] Includes costs to adjust and settle claims, including attorney expenses, claims adjuster expenses, court reporter fees, expert witness fees, etc. Comprised of allocated loss adjustment expense ("ALAE"), which are expenses that can be attributed to individual claims, and unallocated loss adjustment expense ("ULAE"), which are expenses that cannot be attributed to individual claims.

[33] Includes: brokerage and commission expenses, premium taxes, licenses (to do conduct business as well as licenses for vendor products), and fees (such as fees related to assessments).

FIGURE 16: ESTIMATED CHANGE IN AVERAGE AUTO INSURANCE COST PER VEHICLE DUE TO REFORM*



*Measured as the dollar difference in estimated average post-reform and pre-reform insurance costs per vehicle, adjusted for the impacts of COVID-19 and inflation. Expressed in terms of 2024 cost levels.

**Excludes rental, towing, and other miscellaneous coverages; includes physical damage coverages which were minimally impacted by the reform

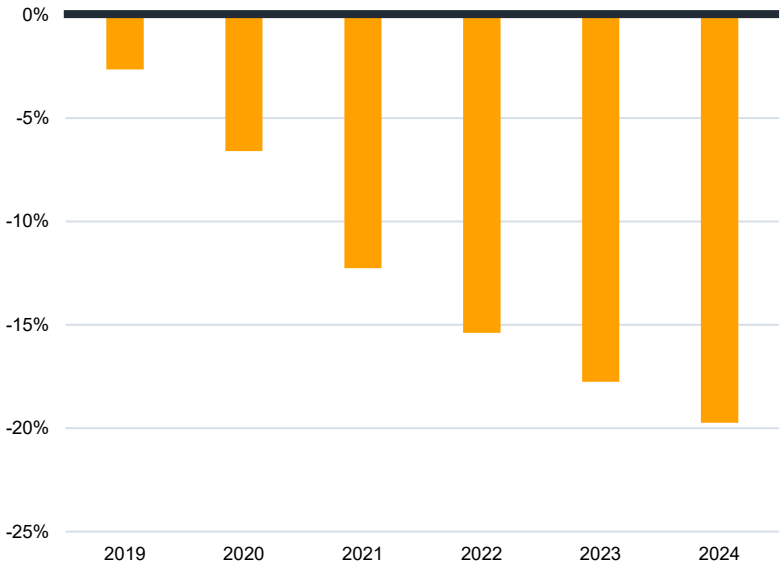
Source: Based on data reported by companies writing private passenger auto insurance in Michigan evaluated as of March 31, 2025. Represents 91.8% of the Michigan private passenger auto insurance market in terms of 2024 earned premium and includes private passenger types only.

It should be noted that *CHHC* was decided in 2024. As such, the loss & ALAE data underlying our selected post-reform costs likely do not reflect the full effect of this decision on costs to auto insurance payers. We have not made additional adjustments to the data for this decision due to the underlying uncertainties of the magnitude of *CHHC's* impact. However, based on the nature of the case and outcome, we believe that *CHHC* will reduce the measured PIP cost savings of PA 21 & 22, as some payments previously made by auto insurance payers for certain services prior to *CHHC* will be required to be paid at higher rates on a post-*CHHC* basis.

IMPACT OF THE MEDICAL FEE SCHEDULE ON COSTS

MCL 500.2111f(8) required auto insurers to document and file with DIFS savings realized from the application of the medical fee schedule of PA 21 & 22 (MCL 500.3157(2) to MCL 500.3157(12)) on claims occurring prior to July 2, 2021. These reported estimates reflect the savings on PIP losses not reimbursed by the MCCA. The MCCA has separately estimated the impact of the medical fee schedule on the portion of losses reimbursed by the MCCA. We relied on both of these estimates—savings net and in excess of the MCCA threshold—to estimate the percent of PIP costs eliminated by accident year due to the medical fee schedule. These estimates are shown in Figure 17 below.

FIGURE 17: ESTIMATED SAVINGS OF REFORM* DUE TO MEDICAL FEE SCHEDULE BY ACCIDENT YEAR



*Reflects savings due to changes in ultimate loss & LAE costs and variable expenses.

Source: Based on data reported by companies writing private passenger auto insurance in Michigan evaluated as of March 31, 2025 and data provided by the MCCA. Data provided by companies represents 91.8% of the Michigan private passenger auto insurance market in terms of 2024 earned premium and includes private passenger types only.

The medical fee schedule became effective July 2, 2021 and applied to medical care, products, services, and accommodations rendered on or after this date for claims from policies effective June 11, 2019 or thereafter. This means auto insurers experienced savings due to the medical fee schedule for claims with accident years as early as 2019 if these claims had care provided on or after July 1, 2021. Payments for care provided prior to July 2, 2021, however, were not subject to the medical fee schedule, regardless of the policy effective date. Therefore, the measured realized savings are smaller for the 2019 through 2021 accident years compared to later years. We estimate that the medical fee schedule reduced costs to auto insurers by 2.7% for accidents occurring in 2019, 6.6% for accidents occurring in 2020, and 12.3% for accidents occurring in 2021.

Some of the reimbursement rates outlined in the medical fee schedule decreased (relative to the Medicare rate) on July 2, 2022 and again on July 2, 2023. For this reason, the realized savings due to the medical fee schedule increased annually from 15.4% in accident year 2022 to 19.7% in accident year 2024. In other words, the medical fee schedule eliminated roughly one-fifth of the overall PIP costs by accident year 2024.

Several important points should be noted. First, the historical data reported has not been adjusted for the *Andary* decision, which was made in August of 2022. Based on Milliman's discussions with the MCCA, we believe that most healthcare providers recouped fees affected by *Andary* during calendar years 2023 and 2024. However, to the extent that healthcare providers did not recoup all fees affected by *Andary*, the savings measured from 2020 through 2022 could be overstated. The savings in 2023 and 2024 should mostly reflect the effect of *Andary*. Second, we anticipate these savings to potentially decrease in future years due to the *CHHC* decision in 2024, as the effects of this decision were not fully reflected in the available data. This decision and its anticipated directional impact on medical fee schedule savings are discussed in the Background section of this report.

IMPACT ON COSTS TO THE MICHIGAN ASSIGNED CLAIMS PLAN

PA 21 & 22 affected the MACP in multiple ways.

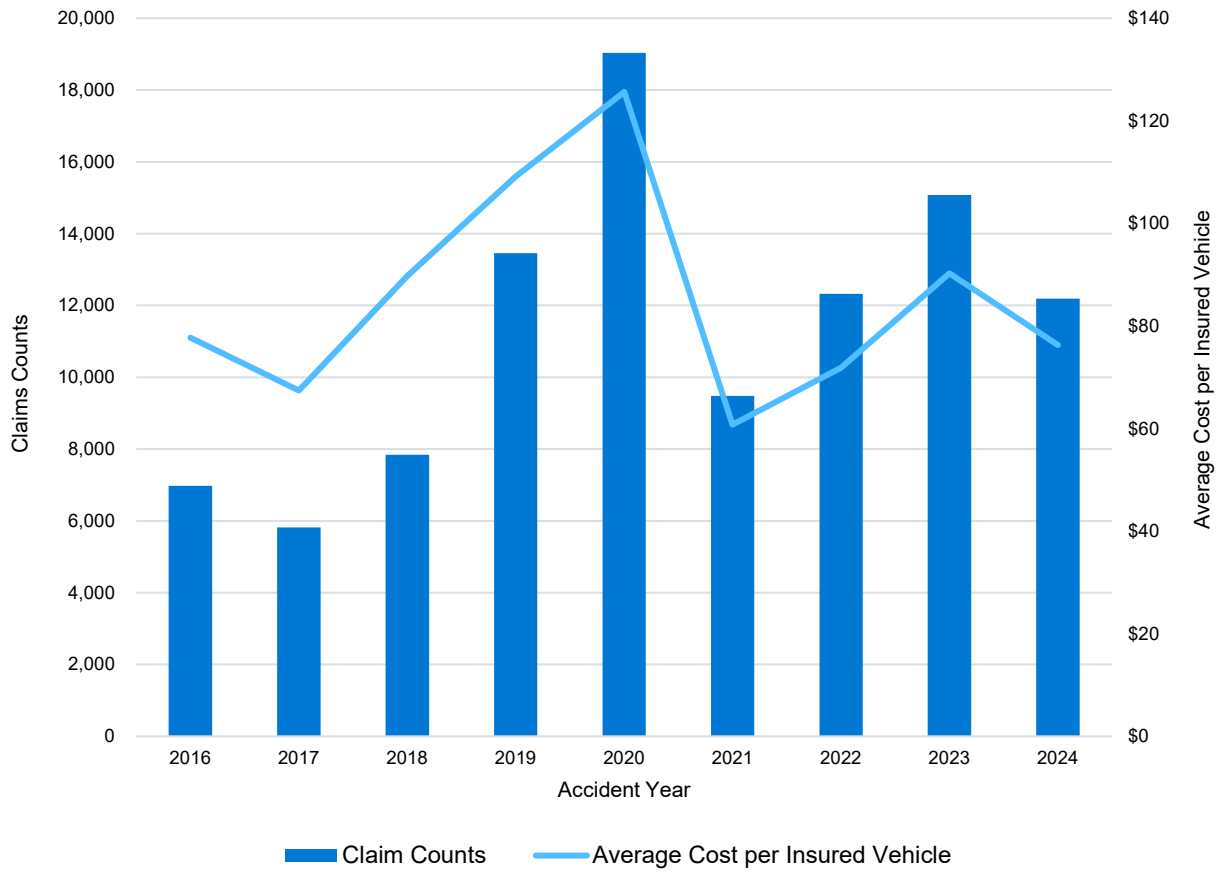
First, due to the changes in the order of priority in which coverage applies, some claims that previously were paid for by auto insurers and the MCCA (if the claim exceeded the MCCA threshold) are covered on a post-reform basis by

the MACP. A deeper discussion of which claims were affected by the order of priority changes is available in the Background section of this report.

Second, PA 21 & 22 limited the maximum amount of benefits payable to claims covered by the MACP. In most situations, the maximum benefit for a claim covered by the MACP is $250,000. Previously, coverage was unlimited.

Figure 18 below shows the resulting MACP loss & LAE cost per insured vehicle (calculated by dividing by the ultimate loss & LAE by the number of insured vehicles each year) as well as the ultimate reported MACP claim counts by accident year.

FIGURE 18: MACP REPORTED CLAIM COUNTS & AVERAGE COST* PER INSURED VEHICLE BY ACCIDENT YEAR



*Includes loss and loss adjustment expense. Excludes other expenses associated with the administration of the MACP.

Source: Based on data reported by MACP servicing carriers in Michigan evaluated as of March 31, 2025 and historical invoices for the MACP.

Prior to the reform, the MACP experienced roughly 7,000 reported claims per year. This dramatically changed after the passing of PA 21 & 22, with claim counts nearly doubling in 2019 compared to their 2016 through 2018 levels. Claim counts continued to surge in 2020 despite decreased levels of driving activity. This increase prior to the implementation of PA 21 & 22 was likely due to the differences in interpretations of the effective date of changes within PA 21 & 22 related to the MACP. This was likely exacerbated by the change in the maximum benefit amount, as auto accident victims tried to file claims prior to the effective date of the reform's new MACP limits. This activity occurred prior to Order 19-049-M issued by DIFS, which clarified the effective dates. On a post-reform basis, the MACP has experienced on average approximately 13,000 claims per year. This implies that, on average,

approximately 6,000 claims per year that prior to the reform would have been paid by auto insurers and the MCCA are now on a post-reform basis being paid by the MACP.

Despite the increase in the number of claims reported to the MACP, the average cost per MACP claim has decreased. Because of this, the average post-reform cost of the MACP per insured vehicle has remained relatively similar to the average pre-reform cost (excluding the increased costs associated with the influx of reported claims during the 2019 and 2020 transition years).

Since the reform shifted claims from auto insurers to the MACP and because the overall cost of the MACP has on average remained the same pre- and post-reform, the overall costs to the auto insurance system decreased as a result of the reform's changes to the MACP.

Impact of Reform on Access to Care & to Healthcare Providers

Our review of PA 21 & 22's impact on access to care and healthcare providers focused on the following:

- Whether access to care was impacted due to reimbursement rates outlined in the medical fee schedule; and
- Whether access to care was impacted due to reliance on health coverage after exhaustion of auto insurance coverage, including PIP medical or other available coverage.

In some regards, it is possible that injured auto accident victims may have experienced impacts on access to care in ways that are difficult or impossible to measure accurately. For instance, healthcare providers may identify alternative treatment, medications, or services compared to what otherwise may have been prescribed pre-reform due to changes in reimbursement rates. Additionally, auto accident victims who ultimately rely on healthcare coverage through their primary health insurer may have limitations on the services and care that are covered through their health benefits. It is difficult to measure shifts in care patterns for these types of changes due to the data available, as it would not only require granular patient-level data from auto insurers, health insurers, and healthcare providers but also a way to match the data across sources by patient (which may be materially limited even if all of the noted data was collected with the data available). Further, even without these limitations, identification of shifts in care patterns or changes in utilization of services may not necessarily indicate that auto accident victims have had their access to care changed as a result of the reform. Data to evaluate whether patients' access to healthcare services is better or worse off due to substitutions in services and treatments is unavailable. Therefore, our analysis largely focused on evaluating whether injured auto accident victims were unable to receive care due to lack of coverage, gaps in coverage, or difficulty in finding a provider willing to provide services. To do this, we reviewed the following:

- Complaints submitted to DIFS on auto insurance access to care-related issues.
- Comparison of average payments made by different payers (Medicaid, Medicare, commercial health insurers, and the MCCA) for select healthcare services.
- Estimated number of auto accident victims per accident year who may ultimately rely on health coverage.

It should be noted that the limited amount of time that has passed since PA 21 & 22's implementation creates a significant limitation of performing an appropriate analysis regarding access to care comparisons to auto accident victims pre-reform. As stated earlier, auto insurance claims can take years to close as injured accident victims recover—with some accident victims requiring care for the remainder of their lives. The care and type of service needed can also be highly dependent on the amount of time that has passed since the accident date. Emergency room visits, hospital stays, surgeries, and inpatient rehabilitation services, for instance, may be more commonly needed in the initial years following an accident while attendant care and other services may not be as heavily relied upon until later. This is further complicated by limitations in the data available. The MCCA, for example, only recently began capturing CPT-level (i.e., type of service provided) payment data in 2021, meaning there is an absence of experience prior to the auto reform implementation with which to compare. Aggregating claim level data across all auto insurers in order to obtain data for older calendar years was outside of the scope of this report. The effort to perform that data aggregation would be exceedingly difficult, if not impossible, due to differences in how data is captured or whether it is captured at all by the auto insurers. This means that it is not currently reasonable to discern whether shifts in utilization of certain services—such as attendant care services—are due to lags in claim development, year-to-year fluctuations in the data, or PA 21 & 22 and any resulting litigation. While we reviewed utilization rates by accident year and calendar year for select healthcare services using this data, we were unable to form definitive conclusions due to these limitations. The following sections provide information related to the different data sources we reviewed to aid in understanding the impact of PA 21 & 22 on health care coverage for auto accident victims.

DIFS COMPLAINTS ANALYSIS

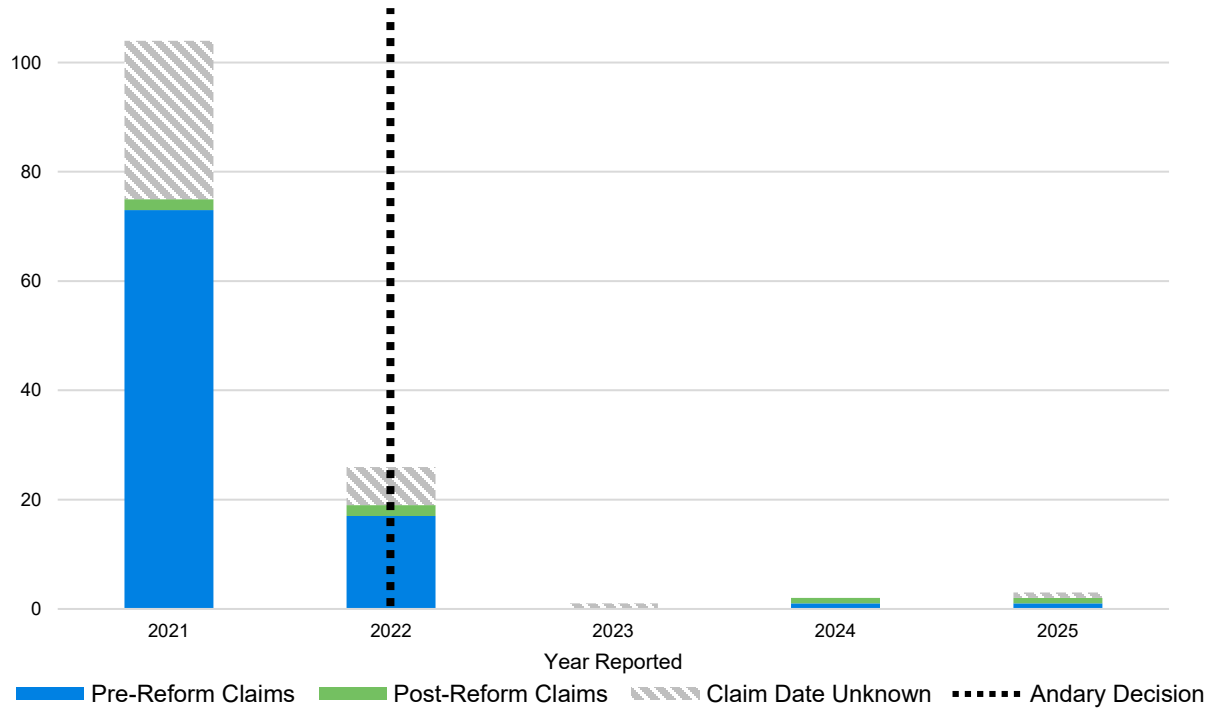
DIFS provides support to consumers with concerns related to their insurance and financial services through its complaint process. The complaints included in this analysis are "formal complaints," or cases where the consumer agrees to let DIFS take action on their behalf with their auto insurance company. When DIFS receives a complaint, insurance companies are contacted to ensure that they secure the care that the consumer is entitled to under the law and their policy.

In 2021, DIFS implemented a new system for reporting complaints made to the Department by consumers related to auto insurance access to care concerns. Complaints received are generally directly from auto accident victims or a 3rd party writing on the auto accident victim's behalf (such as a family member or lawyer), though the Department began accepting auto insurance billing complaints from health care providers in 2021. While DIFS regularly publicly reports on metrics and findings related to complaints, the complaints themselves are confidential under state law and not publicly available. To review the impact of PA 21 & 22 on access to care and healthcare providers, we requested all complaints submitted to DIFS related to auto insurance access to care issues since the system's implementation. Complaints prior to the implementation of this system were unavailable for review.

The data captured for each complaint exists in a largely unstructured format, with most detail surrounding the nature of the complaint provided via an open-ended text response. As such, for each complaint, we reviewed these open-ended responses to categorize the underlying access to care issue, date of accident, and date the consumer first reported complaints related to their claim. We also captured the injury type and age of accident victims when possible, though this information was not consistently provided.

Figure 19 shows the number of newly reported consumers with access to care complaints received by DIFS based on the year in which the complaint was first reported to DIFS. In total, 136 consumers newly reported complaints related to access to care issues since the implementation of DIFS' new complaints system in 2021. Almost all of these initial complaints from consumers (93%) were first reported to DIFS in 2021 or 2022 (prior to the *Andary* decision in 2022) and the majority were related to accidents that occurred pre-reform. Ten complaints were initially submitted to DIFS on access to care issues post *Andary*, with the majority of these stemming from pre-reform accidents (two accident dates are unknown).

FIGURE 19: NUMBER OF NEWLY REPORTED CONSUMERS WITH ACCESS TO CARE COMPLAINTS BASED ON YEAR OF FIRST REPORT



Source: Based on complaints provided by the Michigan Department of Insurance and Financial Services related to auto insurance access to care issues.

Of the complaints where sufficient information was provided to properly categorize the underlying access to care issue,[34] all but one were related to issues surrounding the implementation of the medical fee schedule from PA 21 & 22. Most of these complaints (84%) were related to issues with attendant care. Of the few not related to issues with attendant care service, most were related to issues caused by the reimbursement rate imposed by the medical fee schedule from PA 21 & 22.

Many of the auto accident victims submitting complaints (106) expressed a common issue where an accident victim was notified by a provider that care was being discontinued or that additional out-of-pocket payments were required by the accident victim (to either pay for services already rendered or to continue care). Often the complaints detailed that healthcare providers communicated that the new reimbursement rates mandated by the medical fee schedule from PA 21 & 22 were not enough to cover the expenses of the provider.

Only one complaint was related to coverage disputes with health insurance payers, though the complaint was related to coordination of benefits, not gaps in coverage.

All DIFS access to care complaints have been closed as of November 21, 2025. Closed complaints include cases where the insurer presents a plan for appropriate care that complies with state law and the terms of the consumer's auto insurance policy. Some families may still be disappointed in the care plan if it is different from their preference or their previous care plan, but these cases are closed when medically appropriate care is in place

Based on the number of newly reported consumers with complaints submitted pre-*Andary* versus post-*Andary* as well as the number of newly reported consumers with complaints submitted by pre-reform auto accident victims, our analysis suggests that PA 21 & 22 initially impacted auto accident victims' access to care, particularly access to attendant care, in the initial years following its implementation. The sudden drop-off in complaints after 2022 could suggest that the *Andary* decision played a pivotal role in restoring access to care for pre-reform auto accident victims or that accident victims were able to find and are now receiving alternative care.

The lack of complaints from auto accident victims with post-reform accident dates does not necessarily confirm that post-reform auto accident victims have not experienced, or will not experience, issues with access to care. Claims take years to develop, and the care needed in the initial years following an injury may look different than the care needed many years later. Issues related to access to attendant care, for instance, may not have fully had a chance to materialize if post-reform auto accident victims are only more recently starting to need those types of services. Additionally, some auto accident victims may be unaware of their ability to file complaints with DIFS or that they are having an access to care issue. This may be especially apparent for post-reform auto accident victims who do not have pre-reform care with which to compare. For these reasons, it is not possible to conclude definitively that there are no or limited access to care impacts on post-reform auto accident victims from complaint data alone.

COST OF CARE PAID TO HEALTHCARE PROVIDERS

Because many of the complaints submitted to DIFS detailed narratives of healthcare providers being unwilling to provide care due to reimbursement rates under PA 21 & 22, we evaluated how average payments made for services paid by auto insurance payers (via data from the MCCA) compared to other payers (Medicaid, Medicare, and commercial health insurers). To do this, we obtained granular CPT-level payment data from each payer as previously described in our Data Sources section.

Due to *Andary*, we segmented the MCCA data into payments made on claims from policies effective prior to the signing of PA 21 & 22 ("pre-reform accident victims") and payments made on claims from policies effective on or after the signing of PA 21 & 22 ("post-reform accident victims").

The average payments by payer for the services most prevalent in the MCCA's data are displayed in Figure 20 below. It should be noted that the average amounts paid by other payers reflect the average payment made for all individuals seeking care—not just those who were injured from auto accidents.

[34] Four of the complaints provided included insufficient detail to properly categorize the underlying access to care issue.

FIGURE 20: COMPARISON OF AVERAGE COST PER SERVICE BY PAYER FOR SELECT PROFESSIONAL PROCEDURE CODES

					MCCA	
SERVICE DESCRIPTION	MEDICAID	MEDICAID- FEE SCHEDULE	MEDICARE	CHSD + MARKETSCAN	PRE-REFORM ACCIDENT VICTIMS	POST-REFORM ACCIDENT VICTIMS
ER Dept Visit (99284)	$61.61	$70.92	$157.20	$473.04	$ 761.04	$ 629.27
Office Visit (99214)	$66.73	$75.08	$73.17	$115.24	$ 188.17	$ 201.11
CT scan of head or brain (70450)	$22.57	$65.17	$65.56	$189.34	$ 457.34	$ 195.35
CT scan of spine (72125)	$25.27	$79.64	$36.57	$214.29	$ 625.41	$ 240.05
Chest x-ray (71045)	$5.05	$15.45	$14.93	$28.99	$ 49.60	$ 23.46
Therapeutic exercises (97110)	$22.94	$18.96	$30.52	$36.98	$ 48.80	$ 52.22
Community work/training (97537)	N/A	N/A	$25.93	$22.01	$ 37.31	$ 54.42
Home health or CNA services (S9122)*	N/A	N/A	N/A	$16.52	$ 25.79	$ 19.14
Home health/hospice aide (G0156)*	$14.48	N/A	$28.01	$12.28	$ 28.01	$ 21.21
Attendant care services (S5125)*	N/A	N/A	N/A	N/A	$ 24.50	$ 20.75

*Expressed as the average cost per hour

Source: MCCA average payments based on CPT-level payment data for services provided during 2021 through 2025. Experience for Medicaid represents Michigan encounter and FFS experience from CY 2023, with the Medicaid Fee Schedule as of January 2023 for a comparable time period. The Medicare and Commercial (CHSD + MarketScan) databases represent CY 2023 experience.

For many of the most prevalent services in the MCCA's data, the average payments made by the MCCA for post-reform accident victims were lower than those for pre-reform accident victims. This suggests the medical fee schedule from PA 21 & 22 reduced the required rates for healthcare providers caring for these individuals. However, even with this cost reduction across many services, on average, the MCCA has generally paid higher rates per unit for most services noted in Figure 20—emergency room visits, office visits, CT scans, therapeutic exercises, community work/training, and home health or CNA services—compared to rates paid by other health insurance payers. This pattern was seen for both pre-reform and post-reform MCCA accident victims. The billing practices, specific codes and claim submissions processes utilized by the various payers may have an impact on the average cost per service listed in Figure 20. In particular, the various services that may be provided during an individual patient's ER visit could result in significantly different costs being combined into a singular claim line payment which may distort the comparison. The fees associated with the Medicaid and Medicare columns for ER Dept Visit represent the cost of the physician performing a detailed history and examination of the patient but does not include costs associated with the facility charges or ancillary lab or radiology services performed while in the ER. This may not be the case in the costs reflected under the MCCA and Commercial data sources. Therefore, comparisons across the payers may not be appropriate at each level. To the extent that the average payments above reflect similar services, we would expect there to be fewer access to care and provider issues for accident victims seeking care for these services, since healthcare providers receive higher payments on average than they would receive from other payers.

For chest x-rays, the MCCA paid significantly more per unit for pre-reform accident victims compared to other payers. For post-reform accident victims, while the MCCA paid less on average than commercial insurers, the average MCCA payment was still higher than Medicaid and Medicare.

A challenge in comparing average payments for service codes that could be categorized as "attendant care" (home health or CNA services (S9122), home health/hospice aide (G0156), and attendant care services (S5125)) is that not all payers have defined reimbursement rates for every given CPT code. Additionally, each payer may have different billing instructions for healthcare providers that result in the use of different procedure codes being billed that represent similar charges. This does not mean that care is not provided in any capacity by these payers but that the type of care may be billed under a different code. These issues were central to *CHHC*. For home health or CNA services, home health/hospice aide, and attendant care services, the average MCCA payments were equal to or below the average Medicare rate paid for home health/hospice aid services, though above the available Medicaid

commercial health insurers average payment rates. The lower payment rates on MCCA claims for these attendant care-related services aligns with the broader theme detailed in the complaints submitted to DIFS, wherein most issues were tied to ability to obtain attendant care services due to low reimbursement rates.

Note that these average payments were not adjusted to reflect the impact of the *CHHC* decision. Given the ruling, we would expect the average payments for post-reform accident victims to increase in future years for services where there is not a comparable Medicare rate. We would expect this to potentially mitigate access to care and provider issues given healthcare providers would receive higher rates on average than they previously received from auto insurance payers.

ESTIMATED AUTO ACCIDENT VICTIMS RELYING ON HEALTH COVERAGE

As a reminder, PA 21 & 22 allowed Michiganders to choose a PIP option other than unlimited or to opt-out of PIP medical coverage entirely in certain circumstances in order to reduce PIP premiums. As discussed above, no complaints were submitted to DIFS on access to care issues related to coverage gaps caused by coverage disputes with health insurance payers. However, as also mentioned above, it can take years for claims to develop. This means it may take years for an injured auto accident victim to exhaust coverage on their auto insurance policy before reliance on health coverage is necessary. Given the recency of the reform's implementation, it is possible that limited coverage disputes with health insurance payers have occurred to-date due to the lag in claim development.

Beyond coverage disputes, auto accident victims who rely on health coverage may also have their access to care impacted as, unlike unlimited auto insurance coverage, health coverage may not pay for all medical, rehabilitation, or attendant care costs. Further, auto accident victims could lose access to care altogether if they lose their health insurance coverage, as unlike auto insurance which provides coverage for the life of the claim, health insurance payers are only required to pay for care during the period in which the policy is active.

It is difficult to reliably and precisely measure how PA 21 & 22 impacted access to care in these regards due to limitations in the data available. As such, to better understand the population of auto accident victims that *potentially* could have an access to care issue due to coverage disputes, coverage limitations, or lack of coverage, we conducted an analysis to estimate the expected number of auto accident victims[35] who will exhaust coverage by auto insurance payers and who will eventually need to rely on health insurance payers for care. Not every auto accident victim will have coverage disputes or limitation issues with their health insurance payer, so these estimates represent an estimate on the high-end of auto accident victims who could possibly experience these types of access to care impacts.

To do this, we fit a lognormal claim severity distribution[36] based on industry increased limit factor data from publicly available rate filings.[37] We then used this fitted distribution to calculate probabilities of individual auto accident victims exhausting the limits of available auto insurance coverage (i.e., probability of relying on health coverage) under various scenarios.[38,39] We calculated the probability of each scenario assuming the driver of the auto accident victim's vehicle has a 50% chance of being at fault in the accident. Additionally, we relied on the results of our uninsured motorist analysis as well as the number of insureds who purchase Uninsured Motorist and Underinsured Motorist coverage. These probabilities were then applied to the estimated number of auto accident victims requiring care per year, which were calculated by PIP limit option as well as for the MACP by applying an accident victim-to-

[35] Auto accident victims is defined in this analysis as those who have auto insurance coverage or those who qualify for benefits under the MACP. Our analysis does not consider uninsured motorists not eligible for MACP benefits.

[36] The lognormal distribution is commonly used to model PIP claim severities.

[37] The goodness-of-fit of the fitted distribution was assessed by comparing the limited expected values implied by the fitted distribution to those implied by the selected industry ILFs. Additionally, we compared the expected number of incurred MCCA claims implied by the fitted distribution compared to the MCCA's estimated annual incurred claims.

[38] For example, in one scenario where a claimant was not-at-fault and has Underinsured Motorist coverage, we calculated the probability that the auto accident victim exhausts their PIP limit, the at-fault party's Bodily Injury limits, and the auto accident victim's Underinsured Motorist limits.

[39] Note that our analysis does not consider Excess Attendant Care coverage, since other types of care are likely needed beyond attendant care, in which case auto accident victims would still have to rely on health coverage after exhausting other auto insurance coverage. Additionally, our analysis does not consider the possibility of recoupment of losses under an at-fault driver's umbrella or commercial auto policy, and it makes a simplifying assumption that none of the MACP claimants will be eligible for the $2,000,000 benefit. The inclusion of these policy and benefit types would decrease the expected number of auto accident victims who will rely health insurance coverage.

accident (claimant-to-claim) ratio[40] to the estimated number of accidents requiring care per year. The estimated accidents requiring care per year were based on auto insurance claims frequency data and insured vehicle counts (earned exposure) by PIP limit as well as the MACP's average claim counts per year post-reform. Further details underlying this analysis can be found in Appendix E.

Figure 21 below shows the resulting estimated number of auto accident victims per accident year who are expected to exhaust available auto insurance coverage and may be reliant on health coverage for care—if coverage exists—at some point following an accident.

FIGURE 21: ESTIMATED NUMBER OF AUTO ACCIDENT VICTIMS PER ACCIDENT YEAR WHO MAY RELY ON HEALTH COVERAGE FOR CARE

PIP COVERAGE OPTION	EXPECTED AUTO ACCIDENT VICTIMS
Opt-Out	1,114
$50,000	1,452
$250,000 with Exclusion	
Occupants not Covered by PIP	213
Occupants Covered by PIP	72
$250,000	631
$500,000	21
Unlimited	0
No PIP Coverage (Covered by MACP)	446
Total	3,949

Source: Appendix E

Our analysis estimates that roughly 3,949 auto accident victims per accident year (5.7% of all auto accident victims) will exhaust coverage by an auto insurance payer and may ultimately rely on a health insurance payer for care at some point following an accident. All of these expected accident victims could experience impacts on access to care due to PA 21 & 22 if their health coverage does not pay for all medical, rehabilitation, or attendant care costs or if they lose their health coverage altogether at some point following an accident. However, not all will have coverage disputes with their health insurance payer. Of these expected accident victims, we estimate that approximately 2,779 per accident year (4.0% of all auto accident victims with auto insurance) will have verified that they have health insurance (from Medicaid, Medicare, or some other form qualifying health insurance[41]) that provides coverage for auto accidents based on verification requirements to purchase certain PIP coverage options.[42] Because of this verification process, we do not expect there to be coverage disputes for these accident victims regarding whether the health insurance payer must pay for services related to an auto accident. These accident victims, however, may still have limitations on which services are covered compared to auto insurance payers.

We estimate that 1,170 auto accident victims, or roughly 1.7% of auto accident victims, per accident year will ultimately rely on commercial health insurance without being required under state law to verify that their health insurance covers injuries arising from auto accidents.[43] These individuals could have gaps in coverage. As stated earlier, however, this estimate serves as a high estimate, as not all auto accident victims will have coverage gaps. In particular, state law does not permit state regulated health plans to exclude a particular kind of injury, including auto accidents. Finally, Medicaid or Medicare coverage may be available to these accident victims to the extent the accident victims are eligible under state or federal law.

[40] Developed using claimant and claim data from the MCCA

[41] As defined in MCL 500.3107d(7), qualified health coverage is coverage that does not exclude or limit coverage for auto vehicle accidents and meets the maximum deductible requirement for the given year.

[42] Proof of qualified health coverage required for opt-out, $50,000, and $250,000 (with exclusions) PIP coverage options.

[43] Includes auto accident victims who have the $250,000 (with exclusions) PIP coverage option but do not have qualified health coverage as well as auto accident victims who purchased $250,000 and $500,000 PIP limits. Also includes auto accident victims covered by the MACP.

Disclosures and Limitations

LIMITED DISTRIBUTION OF RESULTS

This report was commissioned by DIFS solely for the use and benefit of DIFS and the Michigan Legislature. Milliman does not intend this information to benefit, and assumes no duty or liability to, any third party that receives this report. Milliman makes no representation to third parties that the information is accurate or complete. Use of such information by third parties is voluntary and should not be relied upon unless its own actuary or other qualified professional reviews the report to ensure that the party understands the assumptions and uncertainties inherent in Milliman's work and performs an independent review of its accuracy and completeness. Any releases of this report to a third party should be in its entirety.

RELIANCE ON DATA

In performing this analysis, we relied on data and other information provided to us by various sources, including DIFS, P&C insurance companies, the Michigan Department of State, the Michigan Catastrophic Claims Association, Medicaid, Medicare, commercial health insurers, and numerous publicly available sources as identified in the citations throughout the report and in the References section of our report. We did not audit or independently verify this data and information for accuracy, which is beyond the scope of our assignment. If the underlying data or information is inaccurate or incomplete, the results of our analysis may likewise be inaccurate or incomplete. In that event, the results of our analysis may not be suitable for the intended purpose.

We performed a limited review of the data used directly in our analysis for reasonableness and consistency. When material defects were found in the data and could not be resolved with the providing party, we either excluded the data from our analysis or, when possible and reasonable, performed adjustments to correct defects. If there are other material defects in the data, it is possible that they would be uncovered by a detailed, systematic review and comparison of the data to search for data values that are questionable or relationships that are materially inconsistent. Such a detailed review was beyond the scope of our assignment.

BASIS OF ACTUARIAL ESTIMATES

Our estimates presented in this report can be characterized as actuarial central estimates. Each estimate represents an expected value over a range of reasonably possible outcomes. They do not reflect all conceivable extreme events where the contribution of such events to an expected value is not reliably estimable. The estimates are not defined by a precise statistical measure (i.e., mean, median, mode, etc.), but are selected from multiple indications produced by a variety of generally accepted actuarial methods. Note that our estimate of the number of auto accident victims who may rely on health insurance coverage after exhausting auto insurance coverage is also characterized as an actuarial central estimate. However, when applying this estimate to the number of individuals who may actually experience gaps in coverage, it should be viewed as a high-end estimate, since not all consumers will face such gaps.

UNCERTAINTY

Our analysis is subject to multiple sources of uncertainty, some of which are discussed earlier in this report.

In estimating the impact of the reform, it is necessary to project future loss and LAE payments as well as future claimants who may rely on health coverage. Actual future losses and LAE as well as actual claimants who may rely on health coverage will not develop exactly as projected and may, in fact, vary significantly from our projections. Further, our projections make no provision for extraordinary future emergence of new classes of losses or types of losses not sufficiently represented in the historical experience or which are not yet quantifiable.

Additionally, our estimate of the impact of the reform on costs to participants and auto insurers required projecting what auto insurance premiums and loss and LAE would have been had the reform not been implemented. This includes many assumptions, including how individual companies would have responded to and implemented changes in costs (a deeper discussion of some of the key assumptions are discussed earlier). Actual premium and claims experience may have emerged differently, maybe even materially, from our projections had the reform not been implemented.

Injuries related to auto accidents can take years to recover from, particularly for the most severe. As discussed elsewhere in this report, the recency of the implementation of PA 21 & 22 along with the amount of time it takes auto accident victims to recover from injuries creates uncertainty when evaluating the reform's impact, especially its impact on access to care for claims associated with policies effective after the reform. This is exacerbated by limitations in the available data, such as the MCCA's CPT-level payment data which only began capturing payments in calendar year 2021. These add uncertainty to our analysis.

The enactment of PA 21 & 22 led to numerous lawsuits, some of which are ongoing and may take years to resolve. Pending and future litigation may change the impact of PA 21 & 22 in ways that currently cannot be estimated. This adds uncertainty to our analysis. Additionally, some rulings (such as *CHHC*) are recent, which means there is limited volume of data available that reflects the effects of these rulings. This is further complicated by the fact that individual carriers may have already been in compliance with rulings due to their own interpretation of PA 21 & 22. We have not made adjustments to the historical data to account for these rulings due to the lack of available information to do so. This adds uncertainty to our analysis and may understate or overstate the estimated impacts.

The implementation of PA 21 & 22 coincided with the COVID-19 pandemic. Beyond causing shifts in claim frequency and inflation, the COVID-19 pandemic caused delays in medical treatments and court proceedings, which makes it difficult to fully isolate impacts from the reform versus impacts from the COVID-19 pandemic. This adds additional uncertainty when measuring the impact of the reform.

We tested the sensitivity of our analysis results to alternative reasonable assumptions such as development factors, trend factors, expected pure premiums, weighting of various indications, and percent of drivers unlicensed and vehicles unregistered. Reasonable alternative assumptions could change the results of our analysis, perhaps materially.

MILLIMAN QUALIFICATIONS

Eric P. Krafcheck and Katherine A. Pipkorn are Fellows of the Casualty Actuarial Society and Christopher T. Pettit is a Fellow of the Society of Actuaries. All authors are Members of the American Academy of Actuaries ("the Academy"). Each meets the Qualifications Standards of the Academy to render the opinion contained in this report.

Closing

We appreciate the opportunity to be of service to the Michigan Department of Insurance and Financial Services.

Sincerely,

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Principal & Consulting Actuary

Katherine A. Pipkorn, FCAS, MAAA
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Technical Appendix

METHODOLOGY TO ESTIMATE IMPACT ON COSTS TO AUTO INSURANCE PAYERS

Selection of Rates of Inflation

Insurance costs typically change year-over-year at a rate that differs from the rate of inflation for the overall economy.[44] Accordingly, the selected rates of inflation for our analysis were based on a review of trends indicated by industry average claim cost ("severity") data[45] by coverage aggregated on U.S, regional, and no-fault state bases. Michigan data was excluded from each of these aggregations so as not to include any impact of PA 21 & 22. For Physical Damage coverages, we gave some weight to the historical Michigan experience since PA 21 & 22 did not prescribe changes in aggregate costs for these coverages. We supplemented industry insurance data with rates of inflation indicated by the Consumer Price Index ("CPI")[46] both on a total basis as well as by components relevant to insurance. Figure 22 below contains an excerpt of this analysis for PIP, which shows the indicated PIP year-over-year rates of inflation by source as well as our selected PIP year-over-year inflation rates.

FIGURE 22: INDICATED AND SELECTED YEAR-OVER-YEAR PIP INFLATION RATES

	YEAR-OVER-YEAR CHANGE			
CALENDAR / ACCIDENT YEAR	AVERAGE PIP LOSS PER CLAIM (U.S.* EXCL. MICHIGAN)	AVERAGE PIP LOSS PER CLAIM (MANDATORY PIP STATES EXCL. MICHIGAN)	CONSUMER PRICE INDEX (ALL ITEMS)	SELECTED PIP YEAR-OVER-YEAR INFLATION RATE
2020	7.6%	7.9%	1.4%	4.5%
2021	12.2%	10.6%	7.0%	4.5%
2022	(3.8)%	(3.5)%	6.5%	4.5%
2023	7.5%	8.2%	3.4%	4.5%
2024	4.2%	5.2%	2.9%	4.5%
5-Year Exponential Trend	5.0%	5.1%	4.6%	
4-Year Exponential Trend	4.2%	4.4%	4.9%	

*Includes states in which PIP coverage is optional.

Source: Average cost per claim data based on information from Fast Track. Consumer price index data obtained from the U.S. Bureau of Labor Statistics.

We used the selected year-over-year inflation rates to adjust the average incurred loss & ALAE per insured vehicle in each accident year[47] to 2024 cost levels. The development of these trend factors as well as further details underlying our selected rates of inflation can be found in Appendix F.

Selection of COVID-19 Claims Frequency Adjustments

To determine how claims frequencies have changed pre- and post-reform due to the effects of the COVID-19 pandemic on driving behavior, we implemented an approach like that described above for inflation, where we examined year-over-year changes in industry average claims frequencies by coverage. We reviewed these trends on U.S., regional, and no-fault state bases (all excluding Michigan) from which we selected year-over-year changes (for Physical Damage, we gave some weight to Michigan experience since PA 21 & 22 did not have a direct impact on these coverages). We used these selected year-over-year changes to adjust the average incurred loss & ALAE per insured vehicle in each accident year to the 2024 claim frequency level. The development of these adjustment factors

[44] In addition to changes in price of goods and services, insurance costs are also influenced by a phenomenon known as "social inflation," which can include increased litigation costs (including larger verdicts and settlements that cycle into increased plaintiff demands), judicial trends, economic factors, societal attitudes towards insurance, "mining" of medical benefits, and increased utilization.

[45] Data obtained from Independent Statistical Service, Inc. Fast Track Plus™

[46] U.S. Bureau of Labor Statistics. (n.d.). CPI for all urban consumers, U.S. city average, 2015-2024 [Data set]. Retrieved July 29, 2025, from http://data.bls.gov

[47] Average loss & ALAE per vehicle based on data reported by P&C insurance companies in Michigan. Data represents 91.8% of the market based on 2024 earned premium.

as well as further details underlying our selected claims frequency adjustments due to the COVID-19 pandemic can be found in Appendix G.

Development of Loss & ALAE to Ultimate

Insurance claims can take years to fully pay out and close. This can be due to a variety of reasons, including delays in reporting, continued need of care, and litigation. While insurance companies establish case reserves for their best estimate of the remaining costs associated with a claim, these estimates are based only on information available and known at the time established. Additionally, case reserves are established at the individual claim level and therefore do not account for claims that have occurred but have not yet been reported to insurance companies as of the evaluation date of the data.

As such, to normalize for these differences in average claim maturity when claims data is aggregated by accident year, it is necessary to develop losses to their expected ultimate settlement value. This inherently is an actuarial exercise.

We relied on the incurred loss & ALAE development method to develop incurred loss & ALAE to ultimate. This projection method derives an estimate of ultimate loss & ALAE by multiplying incurred loss & ALAE (sum of paid loss & ALAE and case reserves) by a cumulative incurred loss development factor ("CDF"). The CDFs reflect the expected relationship between ultimate loss & ALAE and incurred loss & ALAE at various ages of maturity. The CDFs were selected using private passenger auto CDFs included in publicly available rate filings by Michigan auto insurers. The development factors by company were aggregated to an industry level by taking a weighted average using each company's market share as weights.

We applied these selected CDFs to the average incurred loss & ALAE per insured vehicle for each accident year to determine the ultimate loss & ALAE for each coverage.

Selection of Pre- and Post-Reform Average Loss & ALAE per Insured Vehicle

Even with data for the entire industry, insurance claims experience can fluctuate from year-to-year because of the unpredictable nature of the underlying perils for which coverage is provided. Weather, road conditions, human behavior, and other effects in addition to randomness all influence how many claims may occur each year as well as the average cost per claim. Therefore, to smooth out this volatility, we selected pre- and post-reform average loss & ALAE per insured vehicle (adjusted for COVID-19, trended for inflation, and developed to ultimate) by taking an average of multiple years of experience for each coverage.

On a pre-reform basis, we relied on an average of the indicated average loss & ALAE per insured vehicle (adjusted for COVID-19, trended for inflation, and developed to ultimate) from the 2018 and 2019 accident years for Liability and Physical Damage. We relied on an average of the indicated average loss & ALAE per insured vehicle (adjusted for COVID-19, trended for inflation, and developed to ultimate) from 2016 through 2018 for PIP and total (all coverages combined), since portions of PA 21 & 22 impacted the historical PIP data starting in 2019.

On a post-reform basis, we relied on an average of the 2023 and 2024 accident years.

The detail underlying these selections can be found in Appendix D.

Measuring the Estimated Average Cost (Savings) of Reform per Insured Vehicle

The selected pre- and post-reform average loss & ALAE per insured vehicle (adjusted for COVID-19, trended for inflation, and developed to ultimate) exclude ULAE. Our analysis assumes that these expenses (related to the adjusting of claims) will likewise change if the underlying losses change. Accordingly, we incorporated a provision for these expenses in our estimated costs by applying a ULAE factor to the estimated loss and ALAE. The ULAE factor was determined by coverage group based on NAIC annual statement data for the 10 largest writers of auto insurance in Michigan.

Because PA 21 & 22 also mandates that cost savings be passed along to policyholders, we also assumed that any changes in loss and LAE costs (whether they are increases or decreases by coverage group) will ultimately be passed along to policyholders. Because of this, underwriting expenses that are defined based on a percentage of

policy premium (such as commission to agents and premium taxes) will also change as the changes in loss and LAE costs are passed along to policyholders. To account for these costs, we adjusted the selected pre- and post-reform loss & LAE costs per insured vehicle to also include changes in these variable underwriting expense costs. The variable expense ratios used in this adjustment were determined by coverage group based on NAIC annual statement data for the 10 largest writers of auto insurance in Michigan.

After applying these adjustments, the resulting pre- and post-reform total costs per insured vehicle were compared to determine the estimated average cost (savings) of the reform per insured vehicle.

Methodology for Developing MACP Loss & ALAE to Ultimate

To evaluate the impact on costs to the MACP, we reviewed loss & ALAE data provided by MACP's servicing carriers. We developed loss & ALAE to ultimate settlement value using the incurred loss & ALAE development method, the indications from which we selected for accident years 2016 through 2023. We selected the indicated ultimate loss & ALAE from the frequency and severity method for accident year 2024. We applied a ULAE factor to the selected ultimate loss & ALAE by year to determine the ultimate loss & LAE. Exhibits supporting this analysis can be found in Appendix D.

For the incurred loss & ALAE development method, we relied on the industry incurred loss & ALAE development patterns described above, which represent development on a basis that is net of the MCCA threshold, as well as development patterns gross of the MCCA threshold (using development implied by the MCCA's ultimate loss & ALAE). We selected a weighted average of these development patterns to reflect the lower maximum benefit of the MACP post-reform as well as the fact that MACP auto accident victims tend to be involved in more severe accidents.

We also relied on a frequency and severity method for the most recent accident year. For this method, we developed MACP reported claim counts to ultimate based on selected reported claim count development patterns obtained from Schedule P of the NAIC annual statement for the top 10 auto insurers who primarily write business in Michigan. We then calculated the ultimate loss & ALAE severity for accident years 2016 through 2023 by dividing the indicated ultimate loss & ALAE from the incurred loss & ALAE development method by the ultimate reported claim counts. These ultimate loss & ALAE severities were then trended to 2024 cost levels using our selected inflation trend factors discussed early, from which a selected 2024 ultimate loss & ALAE severity was selected. To determine the indicated ultimate loss & ALAE for the 2024 year, we then multiplied this selected 2024 ultimate loss & ALAE severity by the ultimate reported claim counts.

METHODOLOGY TO ESTIMATE UNINSURED MOTORIST RATES

Insurance Research Council (IRC) Study

The IRC periodically conducts and publishes research studies on rates of uninsured motorists for the U.S. and by state. The analysis assumes that the uninsured motorist rate can be inferred by the ratio of Uninsured Motorist Bodily Injury claim frequencies to BI claim frequencies and relies on data from 17 auto insurers that represent roughly 55% of the U.S. market.[48]

Milliman Study

We conducted an independent analysis of the uninsured motorist rate in Michigan using two methodologies:

- Vehicles Method
- Frequency Ratio Method

Vehicles Method

The vehicles method estimates the number of uninsured vehicles by comparing insured vehicle counts (earned car years) to total vehicle counts.

[48] Williams, T. (2025, February 20). *IRC Report Reveals That One in Three Drivers Were Either Uninsured or Underinsured in 2023*. Insurance Information Institute. https://insuranceindustryblog.iii.org/irc-report-reveals-that-one-in-three-drivers-were-either-uninsured-or-underinsured-in-2023/

The total insured vehicle counts in Michigan were determined based on data reported by auto insurers who write business in Michigan. Since only a portion of the market was represented in the data, we adjusted the reported insured vehicle counts based on the market share represented each year to estimate total insured vehicle counts for the entire State of Michigan.

It is challenging to estimate total vehicle counts in any given state. While registered vehicle data exists from multiple sources, these estimates can vary materially. As such, we relied on data from multiple data sources, each of which required adjustments for the data to be suitable for our purposes. These sources included:

- Michigan Department of State ("MDOS")
- Michigan Department of Transportation ("MDOT")
- The Federal Highway Administration ("FHWA")

We requested registered vehicle counts for private passenger auto-type vehicles as well as all registered vehicles directly from MDOS, who is responsible for issuing vehicle and driver registrations in Michigan. MDOS converted its registered vehicle data to a new system (CARS) in 2019 and converted its registered driver data in 2021. The conversion produced data anomalies for registered vehicle counts in years prior to the implementation of CARS. Accordingly, we estimated the number of registered vehicles in the pre-CARS years by applying detrend factors to the pre-2020 registered vehicle counts. These detrend factors were selected based on the year-over-year changes in registered vehicle counts for 2020 and subsequent. Also, because of uncertainty in the underlying vehicle types included in the private passenger auto-type data provided, we also relied on the total registered vehicle counts provided by MDOS, which we adjusted to a private passenger auto-type basis using a ratio of personal-to-total vehicles implied by data from MDOT.

In 2025, MDOT published registered vehicle counts in Michigan by vehicle type.[49] Using detrend rates selected based on the MDOS data, we detrended these registered vehicle counts to estimate vehicle counts in years prior to 2025.

The FHWA also publishes registered vehicle counts by state annually. However, personal and commercial vehicles are grouped together. To estimate the number of registered private passenger auto-type vehicles, we used a ratio of personal-to-total vehicles implied by the MDOT data.

The registered vehicle counts obtained from the above sources exclude unregistered vehicles. To properly estimate the number of total vehicles in Michigan, it is necessary to also estimate the number of unregistered vehicles in the state. While estimates of unregistered vehicles are unavailable in Michigan, several studies have tried to estimate the percent of vehicles that are unregistered in other states.[50,51] The variation in these estimates, the recency of the studies, their focus solely on unregistered vehicles in California, differences in economic conditions during the time period studied compared to the time period of our analysis, as well as potential socioeconomic differences in the geographies studied all add to the uncertainty of using these estimates for the purposes of this study. Accordingly, for our analysis we assumed that 5% of all vehicles in Michigan are unregistered, which was selected based on the range of estimates indicated by the available studies. This assumption was applied to the registered vehicle counts from each source to determine the indicated total vehicles in Michigan.

We also estimated total yearly vehicle counts by applying vehicle-to-driver count ratios to licensed driver counts provided by MDOS. Like the registered vehicle counts data from MDOS, the resulting indicated licensed drivers also required smoothing due to the conversion to the CARS system. Similar to approaches using registered vehicle counts, the use of licensed driver counts does not inherently account for drivers on the road who are not licensed. Several studies exist in the literature that suggest the number of unlicensed drivers is not small enough to be

[49] *Fast Facts* 2025 (n.d.). *Michigan Department of Transportation*. https://www.michigan.gov/-/media/Project/Websites/MDOT/Programs/Planning/MDOT-Fast-Facts.pdf

[50] Hunstad, L. (July 1999). *Estimating Uninsured Vehicle & Unregistered Vehicle Rates: Sensitivity to Data and Assumptions*. California Department of Insurance.

[51] Durbin, T. D., California Environmental Protection Agency Air Resources Board Research Division, & University of California, Riverside College of Engineering Center for Environmental Research and Technology. (2002, March 1). *Determination of Non-Registration Rates for On-Road Vehicles in California*. California Air Resources Board. https://ww2.arb.ca.gov/sites/default/files/classic/research/apr/past/99-318.pdf

considered immaterial.[52] These studies examined the number of unlicensed drivers involved in fatal accidents. For our analysis, we have assumed that the proportion of unlicensed drivers for the wider driver population is consistent with the proportion of unlicensed drivers involved in fatal accidents. The selected percentage of drivers that are licensed was then applied to the licensed driver counts to determine the total drivers in Michigan by year. Then, the total indicated number of vehicles was calculated by year using vehicle-to-driver count ratios developed using data reported from P&C auto insurers.

Due to the uncertainties and limitations involved with each method used for developing the total number of vehicles in Michigan by year, we made selections of the total number by year based on an average of multiple indications. After making these selections, we subtracted the number of insured vehicles by year to estimate the number of uninsured vehicles in each year. The uninsured vehicle counts were then divided by the total number of vehicles in each year to develop the indicated uninsured motorist rate.

Frequency Ratio Method

The Frequency Ratio Method is an approach similar to that used by the IRC, in which we compared ratios of Uninsured Motorist Bodily Injury reported claim frequencies to BI reported claim frequencies using data reported by auto insurers who write business in Michigan. While similar in approach to the IRC's study, the data used in our analysis represents 91.8% of the Michigan private passenger auto insurance market in terms of 2024 earned premium and also includes an indication for the 2016 and 2024 years (estimates for these years for Michigan were not publicly available from the IRC's study).

Selected Uninsured Motorist Rates

As described above, each method of estimating the uninsured motorist rate relies on a series of assumptions. Accordingly, to estimate the uninsured motorist rate in Michigan by year, we relied on an average of the indicated rates from the vehicles method and frequency ratio method. These resulting uninsured motorist rates aligned reasonably well with those estimated by the IRC.

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Michigan Private Passenger Auto Insurance Study
Michigan P&C Industry Data Evaluated as of March 31, 2025
Private Passenger Types Only

Estimated Average Cost (Savings) of Reform per Insured Vehicle

	(1)	(2)	(3) (1) x (2)	(4)	(5) (4) - (3)	(6) (4) / (3) - 1
		Average Direct & Assumed Earned Premium Per Insured Vehicle				
Coverage	Inflation Trend Factor	2019	2019 Adjusted for Inflation to 2024	2024 (Actual)	**Estimated Average Cost (Savings) of Reform per Insured Vehicle** **$**	**%**
Bodily Injury	1.338	147	196	235	**39**	**19.7%**
Property Damage	1.537	25	38	27	**(11)**	**-28.8%**
Property Protection Insurance	1.537	25	39	28	**(10)**	**-27.1%**
Personal Injury Protection (PIP)	1.188	500	594	368	**(227)**	**-38.1%**
MCCA Assessment and Deficit	1.188	195	232	125	**(107)**	**-46.0%**
Excess Attendant Care	1.188	N/A	N/A	17	**17**	**N/A**
Collision	1.377	499	687	650	**(37)**	**-5.3%**
Comprehensive (Other than Collision)	1.709	151	258	272	**14**	**5.4%**
Uninsured / Underinsured Motorist Bodily Injury (UM / UIM)	1.338	38	50	54	**4**	**7.1%**
Subtotal: Liability	1.380	232	320	341	**21**	**6.5%**
Subtotal: Personal Injury Protection	1.188	695	826	457	**(369)**	**-44.7%**
Subtotal: Physical Damage	1.454	597	868	865	**(3)**	**-0.3%**
Total	1.326	1,435	1,903	1,546	**(357)**	**-18.8%**

(1) From Appendix F, Exhibit 1 through Exhibit 5
(2), (4) Based on data reported by companies writing private passenger auto insurance in Michigan evaluated as of March 31, 2025.
Note: Subtotals may not equal the sum of all parts, as not all exposures buy each coverage. Subtotals reflect total exposure that have at least one coverage within coverage type.
Personal Injury Protection (PIP) includes Michigan Assigned Claims Plan (MACP) assessment.

Michigan Private Passenger Auto Insurance Study
Michigan P&C Industry Data Evaluated as of March 31, 2025
Private Passenger Types Only

Estimated Average Cost (Savings) of Reform per Insured Vehicle by County
Personal Injury Protection

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
				(2) x (3)		(5) - (4)	(5) / (4) - 1
			Average Direct & Assumed Earned Premium Per Insured Vehicle				
County	Insured Vehicle Distribution	Inflation Trend Factor [1]	2019	2019 Adjusted for Inflation to 2024	2024 (Actual)	**Estimated Average Cost (Savings) of Reform per Insured Vehicle** **$**	**%**
Alcona	0.2%	1.188	597	709	362	**(347)**	**-49.0%**
Alger	0.1%	1.188	507	602	328	**(274)**	**-45.6%**
Allegan	1.7%	1.188	583	693	394	**(299)**	**-43.1%**
Alpena	0.3%	1.188	555	659	336	**(323)**	**-49.0%**
Antrim	0.3%	1.188	579	687	383	**(304)**	**-44.3%**
Arenac	0.2%	1.188	611	726	403	**(324)**	**-44.6%**
Baraga	0.1%	1.188	502	596	331	**(265)**	**-44.4%**
Barry	0.6%	1.188	603	716	401	**(315)**	**-43.9%**
Bay	1.1%	1.188	614	729	409	**(320)**	**-43.9%**
Benzie	0.3%	1.188	574	682	385	**(297)**	**-43.6%**
Berrien	1.7%	1.188	633	752	398	**(354)**	**-47.1%**
Branch	0.4%	1.188	629	747	422	**(325)**	**-43.5%**
Calhoun	1.3%	1.188	665	790	445	**(344)**	**-43.6%**
Cass	0.5%	1.188	662	787	416	**(371)**	**-47.2%**
Charlevoix	0.3%	1.188	557	662	365	**(297)**	**-44.9%**
Cheboygan	0.3%	1.188	574	682	382	**(300)**	**-44.0%**
Chippewa	0.3%	1.188	577	685	378	**(307)**	**-44.8%**
Clare	0.4%	1.188	649	771	417	**(353)**	**-45.8%**
Clinton	1.0%	1.188	567	674	388	**(285)**	**-42.4%**
Crawford	0.1%	1.188	608	723	366	**(357)**	**-49.4%**
Delta	0.4%	1.188	542	644	342	**(301)**	**-46.8%**
Dickinson	0.3%	1.188	524	622	328	**(294)**	**-47.3%**
Eaton	1.3%	1.188	591	702	399	**(304)**	**-43.2%**
Emmet	0.4%	1.188	541	642	362	**(281)**	**-43.7%**
Genesee	3.7%	1.188	725	861	482	**(379)**	**-44.0%**
Gladwin	0.4%	1.188	618	734	399	**(335)**	**-45.6%**
Gogebic	0.2%	1.188	511	607	310	**(297)**	**-49.0%**
Grand Traverse	0.9%	1.188	568	674	385	**(290)**	**-42.9%**
Gratiot	0.4%	1.188	614	729	400	**(329)**	**-45.2%**
Hillsdale	0.5%	1.188	622	739	407	**(332)**	**-44.9%**
Houghton	0.3%	1.188	519	616	335	**(281)**	**-45.6%**
Huron	0.4%	1.188	590	701	401	**(300)**	**-42.8%**
Ingham	2.4%	1.188	633	752	421	**(332)**	**-44.1%**
Ionia	0.7%	1.188	597	709	415	**(294)**	**-41.4%**
Iosco	0.3%	1.188	597	709	374	**(335)**	**-47.2%**
Iron	0.1%	1.188	534	635	316	**(319)**	**-50.2%**
Isabella	0.5%	1.188	613	728	417	**(311)**	**-42.8%**
Jackson	1.6%	1.188	613	728	412	**(316)**	**-43.4%**
Kalamazoo	2.5%	1.188	613	728	402	**(326)**	**-44.7%**
Kalkaska	0.2%	1.188	625	743	409	**(334)**	**-45.0%**
Kent	6.4%	1.188	587	698	406	**(291)**	**-41.7%**
Keweenaw	0.0%	1.188	525	623	340	**(284)**	**-45.5%**
Lake	0.1%	1.188	646	767	410	**(357)**	**-46.5%**
Lapeer	1.0%	1.188	648	769	430	**(339)**	**-44.1%**
Leelanau	0.5%	1.188	541	642	363	**(280)**	**-43.6%**
Lenawee	1.0%	1.188	616	732	412	**(320)**	**-43.7%**
Livingston	2.4%	1.188	602	715	398	**(317)**	**-44.4%**
Luce	0.1%	1.188	556	660	373	**(287)**	**-43.5%**
Mackinac	0.1%	1.188	557	661	366	**(295)**	**-44.7%**
Macomb	9.0%	1.188	832	988	558	**(429)**	**-43.5%**
Manistee	0.3%	1.188	563	668	380	**(289)**	**-43.2%**
Marquette	0.7%	1.188	496	589	323	**(265)**	**-45.1%**
Mason	0.3%	1.188	554	658	367	**(290)**	**-44.2%**
Mecosta	0.4%	1.188	619	736	409	**(327)**	**-44.4%**
Menominee	0.2%	1.188	548	651	340	**(312)**	**-47.9%**
Midland	0.9%	1.188	586	696	382	**(314)**	**-45.2%**
Missaukee	0.1%	1.188	641	761	401	**(360)**	**-47.3%**
Monroe	1.8%	1.188	662	786	439	**(347)**	**-44.2%**
Montcalm	0.8%	1.188	622	739	432	**(308)**	**-41.6%**
Montmorency	0.1%	1.188	596	707	369	**(338)**	**-47.8%**
Muskegon	1.8%	1.188	629	748	421	**(327)**	**-43.7%**
Newaygo	0.5%	1.188	640	760	424	**(335)**	**-44.1%**
Oakland	13.3%	1.188	736	875	480	**(394)**	**-45.1%**
Oceana	0.3%	1.188	614	730	406	**(324)**	**-44.4%**
Ogemaw	0.2%	1.188	606	720	398	**(322)**	**-44.7%**
Ontonagon	0.1%	1.188	487	579	304	**(275)**	**-47.5%**
Osceola	0.3%	1.188	630	748	406	**(342)**	**-45.7%**
Oscoda	0.1%	1.188	610	725	376	**(349)**	**-48.2%**
Otsego	0.3%	1.188	586	697	387	**(310)**	**-44.5%**
Ottawa	3.1%	1.188	533	634	365	**(269)**	**-42.4%**
Presque Isle	0.1%	1.188	533	633	342	**(291)**	**-46.0%**
Roscommon	0.3%	1.188	611	726	389	**(337)**	**-46.4%**
Saginaw	1.8%	1.188	682	810	444	**(366)**	**-45.2%**
Sanilac	0.5%	1.188	654	777	434	**(344)**	**-44.2%**
Schoolcraft	0.1%	1.188	523	621	357	**(264)**	**-42.5%**
Shiawassee	0.9%	1.188	608	723	407	**(316)**	**-43.7%**
St. Clair	1.9%	1.188	708	840	459	**(381)**	**-45.4%**
St. Joseph	0.6%	1.188	619	735	424	**(311)**	**-42.4%**
Tuscola	0.7%	1.188	622	739	434	**(305)**	**-41.3%**
Van Buren	0.9%	1.188	630	748	411	**(337)**	**-45.0%**
Washtenaw	3.2%	1.188	647	769	424	**(345)**	**-44.8%**
Wayne	13.3%	1.188	956	1,135	596	**(539)**	**-47.5%**
Wexford	0.4%	1.188	615	730	403	**(327)**	**-44.8%**
Missing / Out-of-State	0.0%	1.188	1,223	1,453	1,216	**(237)**	**-16.3%**
Subtotal: Personal Injury Protection		1.188	695	826	457	**(369)**	**-44.7%**

[1] From Appendix F, Exhibit 3
(1) Based on 2024 Personal Injury Protection earned car years

Michigan Private Passenger Auto Insurance Study
Michigan P&C Industry Data Evaluated as of March 31, 2025
Private Passenger Types Only

Selected Uninsured Motorist Rate by Calendar Year

	(1)	(2)	(3)	(4)
	Indicated Michigan Uninsured Motorist Rate			Selected
Calendar Year	Vehicles Method	Frequency Ratio Method	Insurance Research Council	Michigan Uninsured Motorist Rate
2016	22.0%	14.0%	N/A	18.0%
2017	21.4%	13.4%	18.7%	17.4%
2018	21.1%	13.2%	17.4%	17.2%
2019	20.9%	13.5%	20.0%	17.2%
2020	22.0%	18.8%	25.4%	20.4%
2021	21.8%	15.3%	20.4%	18.5%
2022	21.0%	16.6%	20.9%	18.8%
2023	21.7%	17.4%	22.3%	19.5%
2024	21.5%	16.0%	N/A	18.8%

(1) From Appendix C, Exhibit 2, Column (4)
(2) From Appendix C, Exhibit 10, Column (7)
(3) From the Insurance Research Council report "Uninsured and Underinsured Motorists: 2017 to 2023"; reflects Michigan-specific rates
(4) Selected based on average of (1) and (2)

Michigan Private Passenger Auto Insurance Study
Michigan P&C Industry Data Evaluated as of March 31, 2025
Private Passenger Types Only

Indicated Uninsured Motorist Rate by Calendar Year
Vehicles Method

Calendar Year	(1) Total Number of Vehicles	(2) PIP Earned Car Years	(3) (1) - (2) Estimated Uninsured Vehicles	(4) (3) / (1) Indicated Uninsured Motorist Rate
2016	7,968,757	6,214,170	1,754,587	22.0%
2017	8,049,236	6,324,496	1,724,740	21.4%
2018	8,130,458	6,411,658	1,718,800	21.1%
2019	8,213,451	6,493,166	1,720,286	20.9%
2020	8,300,846	6,472,492	1,828,355	22.0%
2021	8,501,866	6,651,775	1,850,091	21.8%
2022	8,526,050	6,738,870	1,787,180	21.0%
2023	8,661,105	6,785,280	1,875,824	21.7%
2024	8,671,911	6,809,932	1,861,979	21.5%

(1) From Appendix C, Exhibit 3, Column (6)
(2) Based on data reported by companies writing private passenger auto insurance in Michigan evaluated as of March 31, 2025. Adjusted to represent entire Michigan private passenger auto market.

Michigan Private Passenger Auto Insurance Study
Michigan P&C Industry Data Evaluated as of March 31, 2025
Private Passenger Types Only

Selected Total Vehicles by Calendar Year

	(1)	(2)	(3)	(4)	(5)	(6)
	Indicated Total Number of PPA Vehicles					
	Department of State					
Calendar	Registered Vehicle Method		Licensed	MI Dept of		Selected Total
Year	PPA Method	Total Method	Driver Method	Transportation	FHWA	PPA Vehicles
2016	7,099,377	8,422,109	7,958,085	8,395,456	7,876,095	7,968,757
2017	7,164,517	8,575,210	7,984,729	8,472,488	8,058,027	8,049,236
2018	7,230,254	8,731,095	8,010,257	8,550,226	7,927,431	8,130,458
2019	7,296,594	8,889,814	8,038,720	8,628,678	7,987,707	8,213,451
2020	7,363,543	9,051,418	8,080,574	8,707,849	8,017,078	8,300,846
2021	7,452,261	9,645,029	8,122,428	8,787,747	9,035,088	8,501,866
2022	7,509,694	9,561,846	8,164,282	8,868,378	8,874,942	8,526,050
2023	7,574,461	9,874,429	8,245,779	8,949,749	9,350,447	8,661,105
2024	7,634,968	9,694,396	8,326,413	9,031,866	N/A	8,671,911

(1) From Appendix C, Exhibit 4, Column (6)
(2) From Appendix C, Exhibit 5, Column (7)
(3) From Appendix C, Exhibit 6, Column (5)
(4) From Appendix C, Exhibit 7, Column (5)
(5) From Appendix C, Exhibit 8, Column (4)
(6) Selected based on average of (1) and (4)

Michigan Private Passenger Auto Insurance Study
Michigan P&C Industry Data Evaluated as of March 31, 2025
Private Passenger Types Only

Indicated Number of Registered Vehicles by Calendar Year
Based on Data (PPA-Types by Zip Code) from Michigan Department of State (Registered Vehicle Method)

Calendar Year	(1) Number of Registered Vehicles	(2) (1) / (1) Prior Annual Change	(3) Selected Adjustment Factor	(4) Adjusted Number of Registered Vehicles	(5) Percent of Vehicles Registered	(6) (4) / (5) Indicated Total Number of PPA Vehicles
2016	547,312	N/A	0.991	6,744,408	95%	7,099,377
2017	846,954	54.75%	0.991	6,806,291	95%	7,164,517
2018	6,322,866	646.54%	0.991	6,868,741	95%	7,230,254
2019	7,228,748	14.33%	0.991	6,931,764	95%	7,296,594
2020	6,995,366	-3.23%	1.000	6,995,366	95%	7,363,543
2021	7,079,648	1.20%	1.000	7,079,648	95%	7,452,261
2022	7,134,209	0.77%	1.000	7,134,209	95%	7,509,694
2023	7,195,738	0.86%	1.000	7,195,738	95%	7,574,461
2024	7,253,220	0.80%	1.000	7,253,220	95%	7,634,968

(1) From the Michigan Department of State. Note the Michigan Department of State converted to a new system to maintain its registered vehicle data in February 2019
(3) For years 2016 through 2019, = 1 - average (2) from 2021 through 2024; otherwise, = 1.000
(4) For years 2016 through 2019, = (3) x subsequent (4); otherwise, = (1) x (3)
(5) From Appendix C, Exhibit 9, Row (4)

Michigan Private Passenger Auto Insurance Study
Michigan P&C Industry Data Evaluated as of March 31, 2025
Private Passenger Types Only

Indicated Number of Registered Vehicles by Calendar Year
Based on Data (Total Registered Vehicles) from Michigan Department of State (Registered Vehicle Method)

Calendar Year	(1) Number of Registered Vehicles	(2) (1) / (1) Prior Annual Change	(3) Selected Adjustment Factor	(4) Adjusted Number of Registered Vehicles	(5) PPA Adjustment Factor	(6) Percent of Vehicles Registered	(7) (4) x (5) / (6) Indicated Total Number of PPA Vehicles
2016	10,733,416	N/A	0.982	8,549,865	0.936	95%	8,422,109
2017	10,922,310	1.76%	0.982	8,705,289	0.936	95%	8,575,210
2018	11,119,994	1.81%	0.982	8,863,539	0.936	95%	8,731,095
2019	8,229,747	-25.99%	0.982	9,024,666	0.936	95%	8,889,814
2020	9,188,721	11.65%	1.000	9,188,721	0.936	95%	9,051,418
2021	9,791,336	6.56%	1.000	9,791,336	0.936	95%	9,645,029
2022	9,706,891	-0.86%	1.000	9,706,891	0.936	95%	9,561,846
2023	10,024,216	3.27%	1.000	10,024,216	0.936	95%	9,874,429
2024	9,841,452	-1.82%	1.000	9,841,452	0.936	95%	9,694,396

(1) From the Michigan Department of State. Note the Michigan Department of State converted to a new system to maintain its registered vehicle data in February 2019
(3) For years 2016 through 2019, = 1 - average (2) from 2021 through 2024; otherwise, = 1.000
(4) For years 2016 through 2019, = (3) x subsequent (4); otherwise, = (1) x (3)
(5) Based on vehicle counts from the Michigan Department of Transportation 2025 Fast Facts publication; = [Private Passenger Types + Electric Vehicles] / Total Vehicles
(6) From Appendix C, Exhibit 9, Row (4)

Michigan Private Passenger Auto Insurance Study
Michigan P&C Industry Data Evaluated as of March 31, 2025
Private Passenger Types Only

Indicated Number of Registered Vehicles by Calendar Year
Based on Data from Michigan Department of State (Licensed Driver Method)

Calendar Year	(1) Number of Licensed Drivers	(2) Percent of Drivers Licensed	(3) Vehicle-to Driver Ratio	(4) (1) / (2) x (3) Indicated Number of Vehicles	(5) Smoothed Indicated Total Number of PPA Vehicles
2016	7,180,043	90%	0.998	7,958,085	7,958,085
2017	7,204,082	90%	0.998	7,984,729	7,984,729
2018	7,227,114	90%	0.998	8,010,257	8,010,257
2019	7,252,794	90%	0.998	8,038,720	8,038,720
2020	7,118,197	90%	0.998	7,889,538	8,080,574
2021	7,256,488	90%	0.998	8,042,814	8,122,428
2022	7,366,080	90%	0.998	8,164,282	8,164,282
2023	7,439,610	90%	0.998	8,245,779	8,245,779
2024	7,512,360	90%	0.998	8,326,413	8,326,413

(1) From the Michigan Department of State. Note the Michigan Department of State converted to a new system used to maintain its licensed driver data in March 2021
(2) From Appendix C, Exhibit 9, Row (8)
(3) Based on data reported by companies writing private passenger auto insurance in Michigan evaluated as of March 31, 2025
(5) For 2020 and 2021, based on a linear regression fit on (4) for years 2019 and 2022; otherwise, = (4)

Michigan Private Passenger Auto Insurance Study
Michigan P&C Industry Data Evaluated as of March 31, 2025
Private Passenger Types Only

Indicated Number of Registered Vehicles by Calendar Year
Based on Data from the Michigan Department of Transportation

	(1)	(2)	(3)	(4)	(5)
Calendar Year	Number of Registered Vehicles	Selected Yearly Trend	Detrend Factor	Percent of Vehicles Registered	Indicated Total Number of PPA Vehicles
2016	N/A	0.91%	0.921	95%	8,395,456
2017	N/A	0.91%	0.930	95%	8,472,488
2018	N/A	0.91%	0.938	95%	8,550,226
2019	N/A	0.91%	0.947	95%	8,628,678
2020	N/A	0.91%	0.955	95%	8,707,849
2021	N/A	0.91%	0.964	95%	8,787,747
2022	N/A	0.91%	0.973	95%	8,868,378
2023	N/A	0.91%	0.982	95%	8,949,749
2024	N/A	0.91%	0.991	95%	9,031,866
2025	8,659,000	N/A	1.000	95%	9,114,737

(1) From the Michigan Department of Transportation 2025 Fast Facts publication
(2) From Appendix C, Exhibit 4, Column (2)
(3) In 2025, = 1.000; for all other years, = (2) x (3) subsequent
(4) From Appendix C, Exhibit 9, Row (4)
(5) = (1), 2025 x (3) / (4)

Michigan Private Passenger Auto Insurance Study
Michigan P&C Industry Data Evaluated as of March 31, 2025
Private Passenger Types Only

Indicated Number of Registered Vehicles by Calendar Year
Based on Data from the Federal Highway Administration

Calendar Year	(1) Number of Registered Vehicles	(2) PPA Adjustment Factor	(3) Percent of Vehicles Registered	(4) (1) x (2) / (3) Indicated Total Number of PPA Vehicles
2016	7,995,569	0.936	95%	7,876,095
2017	8,180,261	0.936	95%	8,058,027
2018	8,047,684	0.936	95%	7,927,431
2019	8,108,874	0.936	95%	7,987,707
2020	8,138,691	0.936	95%	8,017,078
2021	9,172,143	0.936	95%	9,035,088
2022	9,009,568	0.936	95%	8,874,942
2023	9,492,286	0.936	95%	9,350,447
2024	N/A	0.936	95%	N/A

(1) From the U.S. Department of Transportation Federal Highway Administration (FHWA)'s Office of Highway Policy Information, Highway Statistics Series
(2) Based on vehicle counts from the Michigan Department of Transportation 2025 Fast Facts publication;
= [Private Passenger Types + Electric Vehicles] / Total Vehicles
(3) From Appendix C, Exhibit 9, Row (4)

Michigan Private Passenger Auto Insurance Study
Michigan P&C Industry Data Evaluated as of March 31, 2025
Private Passenger Types Only

Indicated Number of Registered Vehicles and Licensed Drivers by Calendar Year
Based on Data from the Federal Highway Administration

Percent of Vehicles Unregistered

(1)	California Department of Insurance	
	Minimum	8.5%
	Average	9.6%
	Maximum	11.7%
(2)	California Air Resources Board	3.4%
	Selected Percent of Vehicles:	
(3)	**Unregistered**	**5%**
(4)	**Registered**	**95%**

Percent of Drivers Unlicensed (Invalid License)

(5)	National Highway Traffic Safety Administration	
	Michigan	10.0%
(6)	California Department of Motor Vehicles	16.2%
	Selected Percent of Drivers:	
(7)	**Unlicensed**	**10%**
(8)	**Licensed**	**90%**

(1) From the California Department of Insurance's July 1999 article *Estimating Uninsured Vehicle & Unregistered Vehicle Rates: Sensitivity to Data and Assumptions*
(2) From the California Air Resources Board's 2002 article *Determination of Non-Registration Rates for On-Road Vehicles in California*
(4) = 1 - (3)
(5) From the U.S. Department of Transportation National Highway Traffic Safety Administration's April 2025 article *Driver License Compliance Status in Fatal Crashes* , Table 10: Fatalities and Drivers With Invalid Licenses, in Fatal Crashes by State, 2012; reflects Michigan-specific drivers involved with invalid licenses
(6) From the California Department of Motor Vehicles's September 2012 article *Estimation of Fatal Crash Rates for Suspended/Revoked and Unlicensed Drivers In California*
(8) = 1 - (7)

Michigan Private Passenger Auto Insurance Study
Michigan P&C Industry Data Evaluated as of March 31, 2025
Private Passenger Types Only

Indicated Uninsured Motorist Rate by Calendar Year
Frequency Ratio Method

	(1)	(2)	(3)	(4)	(5) (3) / (1)	(6) (4) / (2)	(7) (6) / (5)
	Earned Exposure		Reported Claim Counts		Reported Claim Frequency		Indicated
Calendar Year	Bodily Injury	Uninsured Motorist	Bodily Injury	Uninsured Motorist	Bodily Injury	Uninsured Motorist	Uninsured Motorist Rate
2016	5,891,032	3,726,719	18,684	1,650	0.32%	0.04%	14.0%
2017	6,006,270	3,720,674	18,303	1,523	0.30%	0.04%	13.4%
2018	6,113,916	3,466,546	18,036	1,355	0.30%	0.04%	13.2%
2019	6,185,230	3,395,242	18,194	1,349	0.29%	0.04%	13.5%
2020	6,203,090	3,397,124	13,650	1,403	0.22%	0.04%	18.8%
2021	6,425,059	3,671,086	17,310	1,515	0.27%	0.04%	15.3%
2022	6,510,156	3,725,913	18,521	1,759	0.28%	0.05%	16.6%
2023	6,569,153	3,746,686	19,729	1,958	0.30%	0.05%	17.4%
2024	6,608,114	3,815,428	19,477	1,804	0.29%	0.05%	16.0%

(1) - (4) Based on data reported by companies writing private passenger auto insurance in Michigan evaluated as of March 31, 2025. Adjusted to represent entire Michigan private passenger auto market.

Michigan Private Passenger Auto Insurance Study
Michigan P&C Industry Data Evaluated as of March 31, 2025
Private Passenger Types Only

COVID-Adjusted Trended Ultimate Loss & ALAE Cost (Loss & ALAE per Insured Vehicle) by Accident Year

	(1)	(2)	(3)
Accident Year	**Liability**	**PIP**	**Total**
2016	**196**	**922**	**1,604**
2017	**184**	**923**	**1,582**
2018	**179**	**885**	**1,546**
2019	**174**	**780**	**1,461**
2020	**173**	**768**	**1,432**
2021	**248**	**635**	**1,418**
2022	**236**	**502**	**1,265**
2023	**247**	**480**	**1,235**
2024	**285**	**464**	**1,256**
(A) Pre-Reform Average Cost:			
2016 - 2019	**183**	**877**	**1,548**
2016 - 2018	**186**	**910**	**1,577**
2018 - 2019	**176**	**832**	**1,503**
Selected	***176***	***910***	***1,577***
(B) Post-Reform Average Cost:			
2023 - 2024	**266**	**472**	**1,245**
2024	**285**	**464**	**1,256**
Selected	***266***	***472***	***1,245***
(C) Estimated Average Cost Savings:			
($)	***90***	***(438)***	***(332)***
(%)	**51%**	**-48%**	**-21%**

(3) Excludes rental, towing, and other miscellaneous coverages
Includes physical damage coverages which were minimally impacted by the reform
(C) Dollar Savings ($) = (B), Selected - (A), Selected
Percent Savings (%) = (B), Selected / (A), Selected - 1

Michigan Private Passenger Auto Insurance Study
Michigan P&C Industry Data Evaluated as of March 31, 2025
Private Passenger Types Only

Estimated Average Cost (Savings) of Reform per Insured Vehicle

	(1)	(2)	(3)	(4) (1) x (2) / [1 - (3)]	(5)	(6)	(7)	(8) (5) x (6) / [1 - (7)]	(9) (8) - (4)	(10) (8) / (4) - 1
	Pre-Reform				Post-Reform					
Coverage	Loss & ALAE Cost per Insured Vehicle	ULAE Factor	Variable Expense Ratio	Total Cost per Insured Vehicle	Loss & ALAE Cost per Insured Vehicle	ULAE Factor	Variable Expense Ratio	Total Cost per Insured Vehicle	**Estimated Average Insurance Cost (Savings) of Reform per Insured Vehicle** **$**	**%**
Bodily Injury	109	1.07	12.0%	132	193	1.07	12.0%	235	**102**	**77.3%**
Property Damage	17	1.07	12.0%	21	18	1.07	12.0%	22	**1**	**2.7%**
Property Protection Insurance	18	1.07	12.0%	22	19	1.07	12.0%	24	**2**	**8.7%**
Personal Injury Protection (PIP) Net of MCCA x MACP	259	1.14	9.8%	327	151	1.14	9.8%	191	**(136)**	**-41.6%**
MCCA (PIP)	570	1.01	0.0%	576	328	1.01	0.0%	332	**(244)**	**-42.4%**
MACP (PIP)	81	1.05	0.0%	85	81	1.05	0.0%	85	**0**	**0.6%**
Excess Attendant Care (PIP)	N/A	1.14	0.0%	N/A	4	1.14	0.0%	5	**5**	**N/A**
Collision	417	1.09	10.2%	507	423	1.09	10.2%	514	**7**	**1.5%**
Comp. (Other than Collision)	209	1.09	10.2%	255	199	1.09	10.2%	242	**(12)**	**-4.8%**
Uninsured / Underinsured Motorist Bodily Injury (UM / UIM)	34	1.07	12.0%	42	38	1.07	12.0%	46	**5**	**11.8%**
Liability	176	1.07	12.0%	215	266	1.07	12.0%	324	**109**	**50.8%**
Personal Injury Protection	910	1.05	2.8%	983	472	1.05	2.6%	509	**(474)**	**-48.2%**
Physical Damage	582	1.09	10.2%	708	585	1.09	10.2%	711	**3**	**0.5%**
Total	1,577	1.07	6.3%	1,797	1,245	1.07	7.9%	1,450	**(347)**	**-19.3%**

(2), (3), (6), (7) Based on NAIC annual statement private passenger auto data for the P&C industry. Michigan Catastrophic Claims Association (MCCA) based on data from MCCA.
Note: Personal Injury Protection includes costs net and gross of the MCCA attachment, costs from the Michigan Assigned Claims Plan (MACP), and costs from Excess Attendant Care coverage.

Michigan Private Passenger Auto Insurance Study
Michigan P&C Industry Data Evaluated as of March 31, 2025
Private Passenger Types Only

Development of Michigan Assigned Claims Plan (MACP) Average Cost (Loss & ALAE) per Insured Vehicle by Accident Year

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8) (3) / (2)	(9)	(10) (7) x (9) / (2)
			MACP						
	Total Industry	MACP	Direct & Assumed			MACP	MACP Reported		MACP
	Insured Vehicles	Reported	Incurred	MACP Indicated Ultimate Loss & ALAE		Selected	Claims per		Average Cost
Accident Year	(Earned Car Years)	Claim Counts	Loss & ALAE	Loss Dev Method	FS Method	Ultimate Loss & ALAE	Insured Vehicle (Frequency)	ULAE Factor	(Loss & LAE) per Insured Vehicle
2016	6,217,102	6,978	381,232,068	460,147,106	N/A	460,147,106	0.112%	1.050	78
2017	6,327,569	5,821	334,042,570	406,195,765	N/A	406,195,765	0.092%	1.050	67
2018	6,412,068	7,842	446,550,631	548,364,175	N/A	548,364,175	0.122%	1.050	90
2019	6,493,166	13,456	538,417,641	675,175,722	N/A	675,175,722	0.207%	1.050	109
2020	6,472,492	19,040	605,105,843	774,535,479	N/A	774,535,479	0.294%	1.050	126
2021	6,651,775	9,478	284,301,370	384,944,055	N/A	384,944,055	0.142%	1.050	61
2022	6,738,870	12,323	317,995,757	461,093,847	N/A	461,093,847	0.183%	1.050	72
2023	6,785,280	15,081	384,242,856	583,280,656	N/A	583,280,656	0.222%	1.050	90
2024	6,817,983	11,550	349,933,222	617,282,204	495,258,334	495,258,334	0.169%	1.050	76

(2) Based on data reported by companies writing private passenger auto insurance in Michigan evaluated as of March 31, 2025.
Adjusted to represent entire Michigan private passenger auto market.

(3) & (4) Based on data reported by MACP servicing carriers in Michigan evaluated as of March 31, 2025 and invoices from the MACP.
Incurred loss and ALAE on payments made by third party administrators (TPAs) in accident years 2022 through 2024 estimated based on calendar year payments from MACP financial statements and selected incurred-to-paid loss and ALAE ratios.
Reported claim counts from TPAs in accident years 2022 through 2024 estimated based on calendar year payments from MACP financial statements and selected paid loss and ALAE severities.

(9) Based on NAIC annual statement private passenger auto data for MACP servicing carriers.

Michigan Private Passenger Auto Insurance Study
Michigan P&C Industry Data Evaluated as of March 31, 2025
Private Passenger Types Only

Development of Michigan Assigned Claims Plan (MACP) Ultimate Loss & ALAE by Accident Year
Loss & ALAE Development Method

(1)	(2)	(3)	(4) (2) x (3)
Accident Year	MACP Direct & Assumed Incurred Loss & ALAE	CDF	MACP Indicated Ultimate Loss & ALAE
2016	381,232,068	1.207	460,147,106
2017	334,042,570	1.216	406,195,765
2018	446,550,631	1.228	548,364,175
2019	538,417,641	1.254	675,175,722
2020	605,105,843	1.280	774,535,479
2021	284,301,370	1.354	384,944,055
2022	317,995,757	1.450	461,093,847
2023	384,242,856	1.518	583,280,656
2024	349,933,222	1.764	617,282,204

(2) From Appendix D, Exhibit 3
(3) From Appendix D, Exhibit 6

Michigan Private Passenger Auto Insurance Study
Michigan P&C Industry Data Evaluated as of March 31, 2025
Private Passenger Types Only

Development of Michigan Assigned Claims Plan (MACP) Ultimate Loss & ALAE by Accident Year
Frequency / Severity Method

(1)	(2)	(3)	(4)	(5) (3) x (4)	(6) (2) / (5)	(7)	(8) (6) x (7)	(9) (5) x (8), Selected
Accident Year	MACP Selected Ultimate Loss & ALAE	MACP Reported Claim Counts	Reported CDF	MACP Ultimate Reported Claim Counts	MACP Ultimate Loss & ALAE Severity	Trend Factor	MACP Trended Ultimate Loss & ALAE Severity	MACP Indicated Ultimate Loss & ALAE
2016	460,147,106	6,978	1.000	6,978	65,943	1.322	87,176	N/A
2017	406,195,765	5,821	1.000	5,821	69,781	1.297	90,506	N/A
2018	548,364,175	7,842	1.000	7,842	69,927	1.271	88,877	N/A
2019	675,175,722	13,456	1.000	13,456	50,177	1.246	62,520	N/A
2020	774,535,479	19,040	1.000	19,040	40,679	1.193	48,531	N/A
2021	384,944,055	9,478	1.000	9,478	40,614	1.141	46,341	N/A
2022	461,093,847	12,323	1.000	12,323	37,417	1.092	40,859	N/A
2023	583,280,656	15,081	1.000	15,081	38,677	1.045	40,417	N/A
2024	N/A	11,550	1.055	12,187	N/A	1.000	N/A	495,258,334

(2), (3) From Appendix D, Exhibit 3 — Average 63,153
(4) Based on industry data retrieved from S&P Global Market Intelligence for the top 10 companies who write primarily in Michigan — Average 2022 - 2023 40,638
(7) From Appendix F, Exhibit 3 — **Selected** **40,638**

Michigan Private Passenger Auto Insurance Study
Michigan P&C Industry Data Evaluated as of March 31, 2025
Private Passenger Types Only

Selected Michigan Assigned Claims Plan (MACP) Loss & ALAE Development Factors Accident Year

(1)	(2)	(3)	(4)
Accident Year	PIP Net of MCCA CDF	Gross PIP CDF	MACP Selected CDF
2016	1.005	1.307	1.207
2017	1.005	1.321	1.216
2018	1.005	1.339	1.228
2019	1.005	1.339	1.254
2020	1.005	1.418	1.280
2021	1.005	1.528	1.354
2022	1.011	1.669	1.450
2023	1.030	1.762	1.518
2024	1.247	2.022	1.764

Michigan Private Passenger Auto Insurance Study
Industry Annual Statement Data Evaluated as of December 31, 2024
Private Passenger Types Only

Private Passenger Auto Liability/Medical Industry Development Factors
Top 10 Michigan-Only Writers

Reported Claim Count

Accident Year	Month of Development									
	12	24	36	48	60	72	84	96	108	120
2011	112,860	121,544	122,885	123,473	123,719	123,767	123,790	123,802	127,289	127,304
2012	117,543	127,340	128,438	128,978	129,090	129,120	129,131	132,067	132,079	132,112
2013	115,916	124,902	126,031	126,336	126,416	126,446	126,583	126,592	126,608	126,604
2014	119,823	127,896	128,876	129,169	129,262	129,334	129,356	129,384	129,381	129,385
2015	125,434	134,133	135,071	135,428	135,615	135,664	135,708	135,708	135,719	135,751
2016	135,051	144,720	145,830	146,427	146,562	146,655	146,649	146,665	146,685	
2017	138,505	149,550	151,170	151,631	151,924	151,938	151,968	151,988		
2018	151,662	166,013	167,317	168,176	168,192	168,267	168,332			
2019	167,340	178,495	180,607	180,861	181,005	181,116				
2020	135,225	145,818	147,766	147,012	147,233					
2021	164,991	177,966	178,488	179,205						
2022	151,321	164,581	166,296							
2023	168,537	182,476								
2024	186,597									

Reported Claim Count Development Factors

Accident Year	Month of Development									
	12-24	24-36	36-48	48-60	60-72	72-84	84-96	96-108	108-120	120-Ult
2011	1.077	1.011	1.005	1.002	1.000	1.000	1.000	1.028	1.000	
2012	1.083	1.009	1.004	1.001	1.000	1.000	1.023	1.000	1.000	
2013	1.078	1.009	1.002	1.001	1.000	1.001	1.000	1.000	1.000	
2014	1.067	1.008	1.002	1.001	1.001	1.000	1.000	1.000	1.000	
2015	1.069	1.007	1.003	1.001	1.000	1.000	1.000	1.000	1.000	
2016	1.072	1.008	1.004	1.001	1.001	1.000	1.000	1.000		
2017	1.080	1.011	1.003	1.002	1.000	1.000	1.000			
2018	1.095	1.008	1.005	1.000	1.000	1.000				
2019	1.067	1.012	1.001	1.001	1.001					
2020	1.078	1.013	0.995	1.002						
2021	1.079	1.003	1.004							
2022	1.088	1.010								
2023	1.083									
Avg	1.078	1.009	1.003	1.001	1.000	1.000	1.003	1.005	1.000	
Avg x h/l	1.078	1.009	1.003	1.001	1.000	1.000	1.000	1.000	1.000	
L5 x h/l	1.080	1.010	1.003	1.001	1.000	1.000	1.000	1.000	1.000	
WA	1.078	1.009	1.003	1.001	1.000	1.000	1.003	1.004	1.000	
WA L5	1.079	1.009	1.002	1.001	1.000	1.000	1.000	1.000	1.000	
WA L3	1.083	1.009	1.000	1.001	1.000	1.000	1.000	1.000	1.000	
Selected [1]	1.079	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Cumulative	1.079	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Interpolated MOD	15-Ult	27-Ult	39-Ult	51-Ult	63-Ult	75-Ult	87-Ult	99-Ult	111-Ult	123-Ult
Cumulative	1.055	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

[1] Loss Development Factors of 1.000 selected for months of development 24-36 and subsequent due to statutory requirement that MACP claims must be reported within 1 year of the accident date

Michigan Private Passenger Auto Insurance Study
Michigan P&C Industry Data Evaluated as of March 31, 2025
Private Passenger Types Only

Personal Injury Protection (PIP) Savings due to Medical Fee Schedule

(1)	(2)	(3)	(4)	(5) = (2) + (3) + (4)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	PIP Ultimate Loss & ALAE (000s)				ULAE Factor			Variable Expense Ratio			
Accident Year	Net (of MCCA x MACP)	MCCA Ceded	MACP	Total	Net (of MCCA x MACP)	MCCA Ceded	MACP	Net (of MCCA x MACP)	MCCA Ceded	MACP	Total Cost
2019	1,557,972	2,627,227	675,176	4,860,374	1.14	1.01	1.05	9.8%	0.0%	0.0%	5,328,579
2020	1,155,416	2,005,405	774,535	3,935,356	1.14	1.01	1.05	9.8%	0.0%	0.0%	4,296,894
2021	1,044,067	1,999,132	384,944	3,428,143	1.14	1.01	1.05	9.8%	0.0%	0.0%	3,741,123
2022	933,273	1,704,478	461,094	3,098,845	1.14	1.01	1.05	9.8%	0.0%	0.0%	3,383,565
2023	976,332	1,554,326	583,281	3,113,939	1.14	1.01	1.05	9.8%	0.0%	0.0%	3,414,356
2024	1,036,432	1,629,793	495,258	3,161,483	1.14	1.01	1.05	9.8%	0.0%	0.0%	3,473,977

(13)	(14)	(15)	(16)	(17) = (14) + (15) + (16)	(18)	(19)	(20)	(21)	(22)	(23)	(24)
	Estimated Ultimate Savings from Medical Fee Schedule (000s)				ULAE Factor			Variable Expense Ratio			
Accident Year	Net (of MCCA x MACP)	MCCA Ceded	MACP	Total	Net (of MCCA x MACP)	MCCA Ceded	MACP	Net (of MCCA x MACP)	MCCA Ceded	MACP	Total Savings
2019	(10,325)	(114,981)	(15,725)	(141,031)	1.14	1.01	1.05	9.8%	0.0%	0.0%	(145,757)
2020	(22,215)	(249,354)	(22,155)	(293,724)	1.14	1.01	1.05	9.8%	0.0%	0.0%	(303,329)
2021	(142,468)	(299,555)	(38,477)	(480,499)	1.14	1.01	1.05	9.8%	0.0%	0.0%	(522,795)
2022	(226,051)	(272,756)	(52,146)	(550,954)	1.14	1.01	1.05	9.8%	0.0%	0.0%	(615,418)
2023	(275,129)	(324,935)	(59,286)	(659,350)	1.14	1.01	1.05	9.8%	0.0%	0.0%	(737,525)
2024	(283,402)	(422,859)	(66,056)	(772,318)	1.14	1.01	1.05	9.8%	0.0%	0.0%	(854,050)

(25)	(26)	(27) = (24) / (26) x 1,000	(28) = (24) / [(12) - (24)]
		Estimated Average Savings per Vehicle from Medical Fee Schedule	
Accident Year	PIP Earned Car Years (ECY)	($)	(%)
2019	6,493,166	(22)	-2.7%
2020	6,472,492	(47)	-6.6%
2021	6,651,775	(79)	-12.3%
2022	6,738,870	(91)	-15.4%
2023	6,785,280	(109)	-17.8%
2024	6,809,932	(125)	-19.7%

(12) = (2) x (6) / [1 - (9)] + (3) x (7) / [1 - (10)] + (4) x (8) / [1 - (11)]
(24) = (14) x (18) / [1 - (21)] + (15) x (19) / [1 - (22)] + (16) x (20) / [1 - (23)]

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Private Passenger Types Only

Expected Number of Accident Victims per Accident Year with Auto Insurance Policies who will Rely on Health Coverage for Care

	Personal Injury Protection Limit								
			$250,000 with Exclusions						
	No PIP Medical Coverage	$50,000	Total	Claimants Not Covered by PIP Med	Claimants Covered by PIP Med	$250,000	$500,000	Unlimited	Statewide Total
(1) Insured Vehicles (Earned Exposure)	318,073	143,470	297,113	297,113	297,113	966,456	234,526	4,850,292	7,404,159
(2) Probability of Accident Potentially Requiring Care	0.77%	4.72%	0.77%	0.10%	0.62%	1.66%	0.75%	0.77%	0.92%
(3) Probability of Accident Requiring Care	0.48%	2.95%	0.48%	N/A	0.39%	1.04%	0.47%	0.48%	0.57%
(4) Estimated Number of Accidents Requiring Care per Year; (1) x (3)	1,538	4,233	1,437	291	1,146	10,044	1,105	23,452	42,519
(5) Accident Victim-to-Accident (Claimant-to-Claim) Ratio	1.320	1.320	1.320	1.320	1.320	1.320	1.320	1.320	
(6) Estimated Number of Injured Accident Victims per Year; (4) x (5)	2,030	5,587	1,896	384	1,513	13,259	1,459	30,957	
(7) Probability Insured is At-Fault (AF)	50.0%	50.0%		50.0%	50.0%	50.0%	50.0%	50.0%	
(8) Probability Insured is Not-at-Fault (NAF); 1 - (7)	50.0%	50.0%		50.0%	50.0%	50.0%	50.0%	50.0%	
(9) Probability AF Driver is Uninsured	18.8%	18.8%		18.8%	18.8%	18.8%	18.8%	18.8%	
(10) Probability NAF Insured has UIM Coverage	74.8%	71.8%		75.2%	75.2%	77.2%	93.5%	89.9%	
(11) Probability NAF Insured has UM Coverage	79.9%	84.7%		78.2%	78.2%	80.9%	97.0%	99.3%	
Average Per Person Limits									
(12) Bodily Injury (BI)	226,806	226,806		226,806	226,806	226,806	226,806	226,806	
(13) Underinsured Motorists Bodily Injury (UIM)	161,495	116,777		128,348	128,348	130,894	209,036	184,220	
(14) Uninsured Motorists Bodily Injury (UM)	156,767	107,210		126,990	126,990	128,326	205,434	174,485	
Probability of Claimant Exceeding*:									
(15) PIP Limit	N/A	45.0%		N/A	7.3%	7.3%	2.2%	0.0%	
(16) PIP + BI Limit	8.5%	6.2%		8.5%	2.4%	2.4%	1.0%	0.0%	
(17) PIP + BI + UIM Limit	3.5%	3.4%		4.1%	1.5%	1.5%	0.6%	0.0%	
(18) PIP + UM Limit	14.3%	14.3%		18.6%	3.7%	3.7%	1.1%	0.0%	
Expected Number of Accident Victims per Accident Year with Auto Insurance Policies who will Rely on Health Coverage for Care									
(19) Scenario 1; (6) x (7) x (15)	1,015	1,257		192	56	487	16	0	3,022
(20) Scenario 2; (6) x (8) x [1 - (9)] x [1 - (10)] x (16)	18	40		3	4	29	0	0	94
(21) Scenario 3; (6) x (8) x [1 - (9)] x (10) x (17)	22	55		5	7	61	3	0	152
(22) Scenario 4; (6) x (8) x (9) x [1 - (11)] x (15)	38	36		8	2	17	0	0	102
(23) Scenario 5; (6) x (8) x (9) x (11) x (18)	22	63		5	4	37	1	0	133
(24) Total; (19) + (20) + (21) + (22) + (23)	1,114	1,452		213	72	631	21	0	3,503

* Does not consider excess attendant care limits, as other medical services may be needed for these claimants in addition to attendant care.

(1), (10) - (14) Based on data reported by companies writing private passenger auto insurance in Michigan evaluated as of March 31, 2025.
(2) Based on selected reported PIP claim frequences from Appendix E, Exhibit 4. Assumes probability for opt-out and $250,000 with Exclusions is equal to the probability for unlimited, implying not all accidents are reported to auto insurers.
(3) = (2) x (3) Statewide / (2) Statewide. Statewide selected based on industry data. Reflects that not all accidents will involve care from providers.
(5) From Appendix E, Exhibit 5
(7), (8) Judgmentally selected. Assumes for any given claimant there is a 50/50 chance of them being at-fault.
(9) From Appendix C, Exhibit 1 (2024)
(15) - (18) Calculated using the lognormal distribution with the parameters selected from Appendix E, Exhibit 3, PIP limit and rows (12) - (14)

Note:
Scenario 1: Injured accident victim was in at-fault vehicle
Scenario 2: Injured accident victim was not-at-fault, at-fault driver is insured, and accident victim does not have Underinsured Motorist Bodily Injury coverage
Scenario 3: Injured accident victim was not-at-fault, at-fault driver is insured, and accident victim has Underinsured Motorist Bodily Injury coverage
Scenario 4: Injured accident victim was not-at-fault, at-fault driver is uninsured, and accident victim does not have Uninsured Motorist Bodily Injury coverage
Scenario 5: Injured accident victim was not-at-fault, at-fault driver is uninsured, and accident victim has Uninsured Motorist Bodily Injury coverage

Michigan Private Passenger Auto Insurance Study
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Private Passenger Types Only

Expected Number of MACP Claimants per Accident Year who will Rely on Health Coverage for Care

	MACP
(1) Average Ultimate MACP Claims per Accident Year	12,267
(2) Claimant-to-Claim Ratio	1.100
(3) Estimated Number of Paid Claimants per Year; (1) x (2)	13,494
(4) Probability At-Fault Driver is Uninsured	18.8%
Average Per Person Limits	
(5) Bodily Injury (BI)	226,806
Probability of Claimant Exceeding*:	
(6) MACP Limit	7.3%
(7) MACP + BI Limit	2.4%
Expected Number of MACP Claimants per Accident Year who will Rely on Health Coverage for Care	
(8) Scenario 1; (3) x (4) x (6)	186
(9) Scenario 2; (3) x [1 - (4)] x (7)	260
(10) Total; (8) + (9)	446

* Does not consider excess attendant care limits, as other medical services may be needed for these claimants in addition to attendant care.

(1) Average of 2021 through 2024 ultimate reported claim counts from Appendix D, Exhibit 5
(2) Judgment. Assumes MACP claims involve fewer claimants than private passenger auto claims.
(4) From Appendix C, Exhibit 1 (2024)
(5) Based on data reported by companies writing private passenger auto insurance in Michigan evaluated as of March 31, 2025.
(6) From Appendix E, Exhibit 1, row (15)
(7) From Appendix E, Exhibit 1, row (16)

Note:
Scenario 1: At-fault driver is uninsured (MACP claimant unable to recover losses under at-fault driver's BI coverage)
Scenario 2: At-fault driver is insured (MACP claimant able to recover losses under at-fault driver's BI coverage)

Michigan Private Passenger Auto Insurance Study
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Private Passenger Types Only

Fitted PIP Claim Severity Distribution

	Allstate	Auto Owners	Farm Bureau	Member Select	Progressive	State Farm	USAA	Industry Straight Average	Selected
PIP Increased Limit Factors									
(1) $50,000	0.587	0.587	0.730	0.371	0.700	0.372	0.480	0.547	0.453
(2) $250,000	0.696	0.864	0.890	0.644	0.850	0.770	0.770	0.783	0.720
(3) $500,000	0.876	0.975	0.980	0.952	1.000	0.930	0.940	0.950	0.925
(4) Unlimited	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Expected Average Pd Severity	
(5) $50,000	40,606
(6) $250,000	64,613
(7) $500,000	82,972
(8) Unlimited	89,736
Lognormal Parameters	
(9) Mu	10.667
(10) Sigma	1.215
(11) Mean	89,736
(12) Standard Deviation	164,824
(13) Coefficient of Variation	0.544

(1) - (4) From Michigan private passenger auto rate filings via S&P Global Market Intelligence
(5) - (7) Row (8) multiplied by rows (1) - (3), respectively
(8) Accident year 2019 paid severity trended to 2024 and adjusted for medical fee schedule savings
(9), (10) Fitted lognormal parameters to the data in rows (5) - (7)
(13) = (12) / (11)

Michigan Private Passenger Auto Insurance Study
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Private Passenger Types Only

Reported Claim Frequency Relativity by Limit

	(1)	(2)	(3)	(4)	(5)	(6)	(7) Sum (1) : (6)
	Personal Injury Protection Limit						
	No PIP Medical Coverage	$50,000	$250,000 with Exclusions	$250,000	$500,000	Unlimited	Statewide Total
Earned Exposure							
2020	49,317	25,154	40,668	197,735	78,117	6,110,801	6,501,792
2021	179,454	80,542	140,726	571,071	201,942	5,493,897	6,667,631
2022	233,142	108,794	195,045	725,383	220,728	5,262,593	6,745,684
2023	276,207	133,206	253,732	829,867	225,834	5,072,962	6,791,808
2024	318,544	143,683	297,553	967,887	234,873	4,855,725	6,818,266
Total	1,056,664	491,380	927,723	3,291,942	961,494	26,795,978	33,525,181
2021 - 2024	1,007,347	466,226	887,055	3,094,208	883,377	20,685,177	27,023,389
2022 - 2024	827,893	385,683	746,330	2,523,137	681,435	15,191,280	20,355,758
2021 - 2023	688,802	322,543	589,502	2,126,321	648,503	15,829,452	20,205,123
Reported Claim Counts							
2020	253	4,558	140	3,029	482	44,724	53,187
2021	892	4,597	450	9,718	1,636	43,390	60,683
2022	1,475	5,181	1,236	12,022	1,642	40,483	62,039
2023	1,703	5,434	1,948	13,587	1,608	38,485	62,766
2024	1,186	5,185	2,099	13,782	1,599	34,223	58,073
Total	5,509	24,955	5,874	52,138	6,967	201,304	296,747
2021 - 2024	5,256	20,396	5,734	49,110	6,485	156,579	243,560
2022 - 2024	4,364	15,799	5,283	39,391	4,850	113,190	182,878
2021 - 2023	4,070	15,212	3,635	35,328	4,887	122,357	185,488
Reported Claim Frequency [1]							
2020	0.51%	18.12%	0.34%	1.53%	0.62%	0.73%	0.82%
2021	0.50%	5.71%	0.32%	1.70%	0.81%	0.79%	0.91%
2022	0.63%	4.76%	0.63%	1.66%	0.74%	0.77%	0.92%
2023	0.62%	4.08%	0.77%	1.64%	0.71%	0.76%	0.92%
2024	0.37%	3.61%	0.71%	1.42%	0.68%	0.70%	0.85%
Total	0.52%	5.08%	0.63%	1.58%	0.72%	0.75%	0.89%
2021 - 2024	0.52%	4.37%	0.65%	1.59%	0.73%	0.76%	0.90%
2022 - 2024	0.53%	4.10%	0.71%	1.56%	0.71%	0.75%	0.90%
2021 - 2023	0.59%	4.72%	0.62%	1.66%	0.75%	0.77%	0.92%
Selected	**0.59%**	**4.72%**	**0.62%**	**1.66%**	**0.75%**	**0.77%**	**0.92%**

[1] Reported claim frequency is calculated as reported claim counts divided by earned exposure
(7) Statewide totals will not reconcile to earned car year totals within this report, as these totals exclude policies with missing limits

Michigan Private Passenger Auto Insurance Study
Michigan P&C Industry Data Evaluated as of March 31, 2025
Private Passenger Types Only

Selected MCCA Claimant to Claim Ratio

Accident Year	(1) MCCA Claimant Counts	(2) MCCA Claim Counts	(3) (1) / (2) Claimant to Claim Ratio
1990	1,056	962	1.098
1991	1,016	938	1.083
1992	938	851	1.102
1993	986	894	1.103
1994	1,147	1,014	1.131
1995	1,067	961	1.110
1996	1,204	1,056	1.140
1997	1,258	1,109	1.134
1998	1,286	1,139	1.129
1999	1,397	1,226	1.139
2000	1,567	1,360	1.152
2001	1,550	1,352	1.146
2002	1,670	1,419	1.177
2003	1,629	1,408	1.157
2004	1,592	1,375	1.158
2005	1,480	1,228	1.205
2006	1,538	1,307	1.177
2007	1,588	1,310	1.212
2008	1,701	1,347	1.263
2009	1,840	1,367	1.346
2010	1,943	1,433	1.356
2011	1,723	1,290	1.336
2012	1,758	1,310	1.342
2013	1,682	1,289	1.305
2014	1,704	1,281	1.330
2015	2,170	1,588	1.366
2016	2,639	1,888	1.398
2017	2,677	1,938	1.381
2018	2,733	1,956	1.397
2019	2,319	1,706	1.359
2020	1,469	1,121	1.310
2021	962	761	1.264
2022	778	598	1.301
2023	650	522	1.245
2024	580	466	1.245
Total	53,297	42,770	1.246
2010 - 2024	25,787	19,147	1.347
2015 - 2024	16,977	12,544	1.353
2020 - 2024	4,439	3,468	1.280
		Selected	**1.320**

(1), (2) From the Michigan Catastrophic Claims Association

Michigan Private Passenger Auto Insurance Study
Michigan P&C Industry Data

Development of Inflation Adjustment Factors
Bodily Injury

Year	(1) Selected Year-Over-Year Inflation	(2) (2) Prior x [1 + (1)] Cumulative Change	(3) (2) / (2) 2024 Cumulative Change Rebased to 2024	(4) 1 / (3) Inflation Adjustment Factor	(5) 5-Yr Lagged Inflation Adjustment Factor
2016	-	1.000	0.627	1.594	N/A
2017	6.0%	1.060	0.665	1.504	N/A
2018	6.0%	1.124	0.705	1.419	1.338
2019	6.0%	1.191	0.747	1.338	1.338
2020	6.0%	1.262	0.792	1.262	1.339
2021	6.0%	1.338	0.840	1.191	1.338
2022	6.0%	1.419	0.890	1.124	N/A
2023	6.0%	1.504	0.943	1.060	N/A
2024	6.0%	1.594	1.000	1.000	N/A

Notes:
(1) From Appendix F, Exhibit 6
(5) = (4), 2 years prior / (4), 3 years subsequent

Michigan Private Passenger Auto Insurance Study
Michigan P&C Industry Data

Development of Inflation Adjustment Factors
Property Damage

Year	(1) Selected Year-Over-Year Inflation	(2) (2) Prior x [1 + (1)] Cumulative Change	(3) (2) / (2) 2024 Cumulative Change Rebased to 2024	(4) 1 / (3) Inflation Adjustment Factor	(5) 5-Yr Lagged Inflation Adjustment Factor
2016	-	1.000	0.563	1.777	N/A
2017	5.0%	1.050	0.591	1.692	N/A
2018	5.0%	1.103	0.620	1.612	1.356
2019	5.0%	1.158	0.651	1.535	1.537
2020	8.5%	1.256	0.707	1.415	1.596
2021	8.0%	1.357	0.763	1.310	1.535
2022	19.0%	1.614	0.908	1.101	N/A
2023	9.0%	1.760	0.990	1.010	N/A
2024	1.0%	1.777	1.000	1.000	N/A

Notes:
(1) From Appendix F, Exhibit 7
(5) = (4), 2 years prior / (4), 3 years subsequent

Michigan Private Passenger Auto Insurance Study
Michigan P&C Industry Data

Development of Inflation Adjustment Factors
Personal Injury Protection

Year	(1) Selected Year-Over-Year Inflation	(2) (2) Prior x [1 + (1)] Cumulative Change	(3) (2) / (2) 2024 Cumulative Change Rebased to 2024	(4) 1 / (3) Inflation Adjustment Factor	(5) 5-Yr Lagged Inflation Adjustment Factor
2016	-	1.000	0.756	1.322	N/A
2017	2.0%	1.020	0.771	1.297	N/A
2018	2.0%	1.040	0.787	1.271	1.159
2019	2.0%	1.061	0.802	1.246	1.188
2020	4.5%	1.109	0.839	1.193	1.216
2021	4.5%	1.159	0.876	1.141	1.246
2022	4.5%	1.211	0.916	1.092	N/A
2023	4.5%	1.266	0.957	1.045	N/A
2024	4.5%	1.322	1.000	1.000	N/A

Notes:
(1) From Appendix F, Exhibit 8
(5) = (4), 2 years prior / (4), 3 years subsequent

Michigan Private Passenger Auto Insurance Study
Michigan P&C Industry Data

Development of Inflation Adjustment Factors
Collision

Year	(1) Selected Year-Over-Year Inflation	(2) (2) Prior x [1 + (1)] Cumulative Change	(3) (2) / (2) 2024 Cumulative Change Rebased to 2024	(4) 1 / (3) Inflation Adjustment Factor	(5) 5-Yr Lagged Inflation Adjustment Factor
2016	-	1.000	0.672	1.489	N/A
2017	3.0%	1.030	0.692	1.446	N/A
2018	3.0%	1.061	0.712	1.404	1.254
2019	3.0%	1.093	0.734	1.363	1.377
2020	3.0%	1.126	0.756	1.323	1.404
2021	11.5%	1.255	0.843	1.187	1.363
2022	13.0%	1.418	0.952	1.050	N/A
2023	5.0%	1.489	1.000	1.000	N/A
2024	0.0%	1.489	1.000	1.000	N/A

Notes:
(1) From Appendix F, Exhibit 9
(5) = (4), 2 years prior / (4), 3 years subsequent

Michigan Private Passenger Auto Insurance Study
Michigan P&C Industry Data

Development of Inflation Adjustment Factors
Comprehensive (Other than Collision)

Year	(1) Selected Year-Over-Year Inflation	(2) (2) Prior x [1 + (1)] Cumulative Change	(3) (2) / (2) 2024 Cumulative Change Rebased to 2024	(4) 1 / (3) Inflation Adjustment Factor	(5) 5-Yr Lagged Inflation Adjustment Factor
2016	-	1.000	0.462	2.167	N/A
2017	6.0%	1.060	0.489	2.044	N/A
2018	6.0%	1.124	0.519	1.928	1.576
2019	6.0%	1.191	0.550	1.819	1.709
2020	15.0%	1.370	0.632	1.582	1.854
2021	15.0%	1.575	0.727	1.375	1.819
2022	15.0%	1.812	0.836	1.196	N/A
2023	15.0%	2.083	0.962	1.040	N/A
2024	4.0%	2.167	1.000	1.000	N/A

Notes:
(1) From Appendix F, Exhibit 10
(5) = (4), 2 years prior / (4), 3 years subsequent

Michigan Private Passenger Auto Insurance Study
Michigan P&C Industry Data

Selected Year-Over-Year Inflation
Bodily Injury

	(1)	(2)	(3)
	Indicated Inflation Trend		
Year	Insurance Industry Severity Trend	CPI Inflation Trend	Selected Year-Over-Year Inflation
2016	6.0%	3.5%	6.0%
2017	6.0%	3.5%	6.0%
2018	6.0%	3.5%	6.0%
2019	6.0%	3.5%	6.0%
2020	6.0%	3.5%	6.0%
2021	6.0%	4.5%	6.0%
2022	6.0%	4.5%	6.0%
2023	6.0%	4.0%	6.0%
2024	6.0%	3.5%	6.0%

Notes:
(1) From Appendix F, Exhibit 11
(2) From Appendix F, Exhibit 16

Michigan Private Passenger Auto Insurance Study
Michigan P&C Industry Data

Selected Year-Over-Year Inflation
Property Damage

	(1)	(2)	(3)
	Indicated Inflation Trend		
Year	Insurance Industry Severity Trend	CPI Inflation Trend	Selected Year-Over-Year Inflation
2016	5.0%	3.5%	5.0%
2017	5.0%	3.5%	5.0%
2018	5.0%	3.5%	5.0%
2019	5.0%	3.5%	5.0%
2020	8.5%	3.5%	8.5%
2021	8.0%	4.5%	8.0%
2022	19.0%	4.5%	19.0%
2023	9.0%	4.0%	9.0%
2024	1.0%	3.5%	1.0%

Notes:
(1) From Appendix F, Exhibit 12
(2) From Appendix F, Exhibit 16

Michigan Private Passenger Auto Insurance Study
Michigan P&C Industry Data

Selected Year-Over-Year Inflation
Personal Injury Protection

Year	(1) Indicated Inflation Trend: Insurance Industry Severity Trend	(2) Indicated Inflation Trend: CPI Inflation Trend	(3) Selected Year-Over-Year Inflation
2016	2.0%	3.5%	2.0%
2017	2.0%	3.5%	2.0%
2018	2.0%	3.5%	2.0%
2019	2.0%	3.5%	2.0%
2020	4.5%	3.5%	4.5%
2021	4.5%	4.5%	4.5%
2022	4.5%	4.5%	4.5%
2023	4.5%	4.0%	4.5%
2024	4.5%	3.5%	4.5%

Notes:
(1) From Appendix F, Exhibit 13
(2) From Appendix F, Exhibit 16

Michigan Private Passenger Auto Insurance Study
Michigan P&C Industry Data

Selected Year-Over-Year Inflation
Collision

	(1)	(2)	(3)
	Indicated Inflation Trend		
Year	Insurance Industry Severity Trend	CPI Inflation Trend	Selected Year-Over-Year Inflation
2016	3.0%	0.0%	3.0%
2017	3.0%	0.0%	3.0%
2018	3.0%	2.0%	3.0%
2019	3.0%	2.5%	3.0%
2020	3.0%	2.5%	3.0%
2021	13.0%	10.0%	11.5%
2022	16.0%	10.0%	13.0%
2023	5.0%	5.0%	5.0%
2024	0.0%	4.0%	0.0%

Notes:
(1) From Appendix F, Exhibit 14
(2) From Appendix F, Exhibit 17

Michigan Private Passenger Auto Insurance Study
Michigan P&C Industry Data

Selected Year-Over-Year Inflation
Comprehensive (Other than Collision)

	(1)	(2)	(3)
	Indicated Inflation Trend		
Year	Insurance Industry Severity Trend	CPI Inflation Trend	Selected Year-Over-Year Inflation
2016	6.0%	0.0%	6.0%
2017	6.0%	0.0%	6.0%
2018	6.0%	2.0%	6.0%
2019	6.0%	2.5%	6.0%
2020	15.0%	2.5%	15.0%
2021	15.0%	10.0%	15.0%
2022	15.0%	10.0%	15.0%
2023	15.0%	5.0%	15.0%
2024	(6.7)%	4.0%	4.0%

Notes:
(1) From Appendix F, Exhibit 15
(2) From Appendix F, Exhibit 17

Michigan Private Passenger Auto Insurance Study
Michigan P&C Industry Data

Insurance Industry Severity Trend
Bodily Injury

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
	Change in Year-Over-Year Severity									Exponential Annual Severity Trend (to 2024)							
State	2016	2017	2018	2019	2020	2021	2022	2023	2024	8-Year	7-Year	6-Year	5-Year	4-Year	3-Year	2-Year	1-Year
Alabama	5.2%	6.2%	7.5%	0.3%	3.8%	5.3%	7.6%	7.9%	7.1%	5.4%	5.4%	5.6%	6.5%	7.1%	7.6%	7.5%	7.1%
Alaska	9.5%	(2.1)%	19.0%	0.6%	7.9%	2.8%	4.8%	(8.9)%	24.1%	4.9%	4.8%	3.7%	4.0%	3.5%	4.2%	6.3%	24.1%
Arizona	10.6%	4.2%	3.9%	5.1%	8.4%	13.7%	12.0%	5.9%	8.3%	8.2%	8.8%	9.5%	9.9%	9.7%	8.4%	7.1%	8.3%
Arkansas	4.8%	13.0%	(8.2)%	6.3%	9.7%	4.8%	6.2%	1.5%	10.3%	4.9%	4.9%	6.1%	5.8%	5.3%	5.5%	5.8%	10.3%
California	5.4%	6.0%	2.9%	8.2%	18.2%	14.0%	6.7%	4.8%	14.4%	9.7%	10.3%	10.9%	10.6%	9.0%	8.2%	9.5%	14.4%
Colorado	22.7%	10.4%	2.9%	3.7%	10.4%	17.2%	1.6%	1.8%	3.6%	6.7%	6.6%	6.8%	6.6%	5.0%	2.3%	2.7%	3.6%
Connecticut	5.2%	8.2%	2.4%	7.5%	(0.9)%	11.5%	5.9%	7.4%	4.9%	5.7%	5.7%	6.1%	6.4%	7.3%	6.2%	6.2%	4.9%
D.C.	(1.5)%	12.0%	3.4%	1.6%	9.9%	7.4%	7.5%	6.6%	7.3%	6.7%	6.6%	7.1%	7.6%	7.2%	7.1%	7.0%	7.3%
Delaware	12.8%	(7.2)%	8.1%	11.9%	5.5%	13.9%	0.6%	(1.7)%	3.3%	5.4%	6.0%	5.3%	4.1%	3.0%	0.5%	0.8%	3.3%
Florida	1.4%	4.6%	6.1%	12.7%	2.7%	12.4%	3.2%	0.2%	4.3%	6.1%	6.0%	5.5%	4.6%	4.2%	2.3%	2.2%	4.3%
Georgia	2.5%	11.8%	2.3%	9.8%	8.0%	15.0%	6.0%	12.8%	6.3%	9.1%	9.2%	9.9%	9.9%	9.9%	8.8%	9.5%	6.3%
Hawaii	1.6%	5.8%	(3.9)%	7.3%	17.7%	(6.5)%	18.4%	(10.9)%	(1.5)%	3.7%	3.6%	3.7%	2.3%	0.0%	0.0%	-6.3%	-1.5%
Idaho	(3.4)%	13.8%	(4.5)%	8.8%	17.7%	2.1%	2.8%	7.7%	5.4%	6.5%	6.3%	7.0%	6.1%	4.6%	5.5%	6.5%	5.4%
Illinois	2.0%	11.8%	3.0%	3.4%	8.0%	14.8%	1.7%	2.6%	4.5%	6.2%	5.9%	6.2%	6.1%	5.1%	2.9%	3.6%	4.5%
Indiana	8.0%	7.1%	(0.4)%	2.5%	9.6%	6.5%	5.0%	2.0%	6.3%	4.8%	4.9%	5.4%	5.5%	4.6%	4.2%	4.1%	6.3%
Iowa	(2.8)%	8.5%	7.4%	(3.3)%	9.4%	14.4%	20.4%	(6.7)%	7.1%	7.3%	7.4%	7.9%	8.9%	7.8%	5.0%	-0.1%	7.1%
Kansas	9.6%	4.4%	37.3%	(16.5)%	4.6%	8.4%	9.6%	9.3%	(3.3)%	5.7%	5.2%	3.9%	6.6%	6.5%	5.4%	2.8%	-3.3%
Kentucky	(2.4)%	4.9%	(3.0)%	6.8%	6.9%	5.2%	5.1%	5.1%	4.0%	4.6%	4.9%	5.5%	5.2%	4.9%	4.8%	4.5%	4.0%
Louisiana	3.4%	8.8%	2.0%	3.1%	3.2%	9.7%	2.3%	1.1%	9.3%	4.5%	4.3%	4.6%	4.8%	4.8%	3.9%	5.1%	9.3%
Maine	0.2%	0.3%	7.0%	8.9%	(0.1)%	12.6%	2.2%	12.6%	(3.6)%	5.7%	6.0%	5.8%	5.6%	6.0%	4.4%	4.2%	-3.6%
Maryland	2.5%	9.0%	5.4%	4.3%	8.8%	16.0%	0.9%	6.2%	7.8%	7.3%	7.3%	7.5%	7.5%	6.8%	5.1%	7.0%	7.8%
Massachusetts	4.7%	3.1%	0.8%	13.4%	8.4%	15.7%	8.8%	3.4%	16.0%	9.0%	9.8%	10.4%	10.0%	9.9%	8.7%	9.5%	16.0%
Michigan	2.9%	1.2%	2.3%	1.6%	(4.7)%	3.2%	29.9%	5.3%	20.2%	6.2%	7.3%	8.8%	11.1%	14.7%	16.7%	12.5%	20.2%
Minnesota	18.0%	9.3%	0.8%	8.5%	3.7%	15.9%	(2.1)%	12.2%	(3.3)%	6.0%	5.9%	6.1%	5.7%	5.2%	3.0%	4.2%	-3.3%
Mississippi	4.0%	6.0%	2.5%	4.6%	7.9%	2.0%	5.2%	3.5%	6.6%	4.6%	4.6%	4.8%	4.7%	4.3%	5.0%	5.0%	6.6%
Missouri	14.8%	3.5%	1.9%	12.2%	23.1%	(4.6)%	14.1%	13.7%	12.1%	9.5%	10.2%	10.8%	10.4%	9.6%	13.3%	12.9%	12.1%
Montana	(5.5)%	(8.4)%	5.3%	7.4%	5.2%	6.6%	13.6%	5.0%	6.1%	6.1%	7.3%	7.5%	7.7%	8.1%	7.8%	5.5%	6.1%
Nebraska	16.0%	(0.0)%	(4.9)%	5.8%	8.8%	5.7%	12.9%	10.4%	(6.7)%	5.2%	6.1%	7.2%	7.1%	6.5%	5.7%	1.5%	-6.7%
Nevada	2.0%	3.7%	3.2%	10.9%	15.0%	12.4%	8.2%	5.2%	12.7%	9.4%	10.1%	10.5%	10.0%	9.0%	8.3%	8.9%	12.7%
New Hampshire	(0.5)%	10.9%	3.7%	6.5%	4.0%	12.5%	6.2%	1.5%	15.6%	7.0%	6.9%	7.3%	7.5%	7.8%	7.0%	8.3%	15.6%
New Jersey	3.3%	3.9%	10.9%	4.8%	1.7%	4.3%	1.5%	(8.6)%	24.6%	3.9%	3.5%	2.8%	2.7%	3.0%	3.5%	6.7%	24.6%
New Mexico	5.2%	10.5%	4.2%	4.4%	11.8%	10.5%	(0.6)%	0.9%	8.2%	6.0%	5.7%	5.6%	5.2%	3.7%	2.6%	4.5%	8.2%
New York	4.2%	4.9%	(0.0)%	1.4%	(0.9)%	5.3%	6.1%	(2.1)%	8.4%	2.4%	2.5%	2.9%	3.3%	3.9%	3.4%	3.0%	8.4%
North Carolina	(0.3)%	7.5%	3.4%	6.3%	5.7%	13.1%	5.4%	2.4%	8.1%	6.5%	6.6%	6.9%	6.8%	6.5%	5.0%	5.2%	8.1%
North Dakota	16.3%	12.6%	(3.6)%	(7.9)%	20.1%	3.3%	(3.5)%	(2.9)%	11.3%	2.6%	2.3%	3.0%	3.3%	0.8%	0.9%	3.9%	11.3%
Ohio	9.3%	11.4%	3.6%	0.1%	8.1%	15.5%	0.3%	3.3%	7.0%	5.9%	5.7%	6.1%	6.4%	5.5%	3.5%	5.2%	7.0%
Oklahoma	12.0%	3.7%	0.0%	0.0%	25.8%	5.2%	5.3%	5.3%	9.9%	7.2%	7.8%	8.6%	8.7%	6.2%	6.7%	7.6%	9.9%
Oregon	3.9%	4.6%	8.9%	5.6%	18.1%	20.9%	(2.4)%	2.3%	12.0%	9.1%	9.3%	9.1%	8.5%	6.2%	3.6%	7.0%	12.0%
Pennsylvania	(1.8)%	10.1%	6.1%	3.2%	5.4%	7.3%	3.8%	4.0%	4.3%	5.3%	4.9%	4.9%	4.9%	4.7%	4.0%	4.1%	4.3%
Rhode Island	3.3%	0.9%	(5.2)%	1.1%	18.1%	15.3%	3.1%	5.1%	10.8%	6.7%	7.8%	9.2%	9.4%	7.6%	6.2%	7.9%	10.8%
South Carolina	2.7%	5.6%	2.5%	9.1%	6.9%	4.9%	15.6%	2.5%	6.2%	7.0%	7.3%	7.6%	7.5%	7.5%	7.4%	4.3%	6.2%
South Dakota	22.7%	67.8%	(45.9)%	(3.4)%	10.0%	18.2%	15.0%	4.3%	(9.7)%	2.1%	1.5%	7.9%	8.6%	7.0%	2.9%	-2.9%	-9.7%
Tennessee	(2.4)%	7.1%	3.2%	6.0%	3.1%	15.7%	8.5%	5.5%	5.6%	7.1%	7.3%	7.9%	8.2%	8.4%	6.4%	5.5%	5.6%
Texas	11.1%	7.7%	3.6%	10.8%	12.0%	17.0%	9.8%	3.7%	8.2%	9.7%	10.1%	10.5%	10.0%	9.0%	6.8%	5.9%	8.2%
Utah	3.8%	12.1%	8.1%	3.2%	11.0%	14.6%	7.0%	4.0%	10.4%	8.6%	8.5%	8.7%	9.0%	8.2%	6.8%	7.1%	10.4%
Vermont	23.8%	(8.9)%	18.2%	(5.0)%	1.8%	7.7%	6.3%	(3.1)%	22.2%	4.0%	4.8%	4.3%	5.8%	6.6%	6.8%	8.8%	22.2%
Virginia	5.3%	8.6%	6.0%	6.4%	6.7%	14.5%	3.4%	3.7%	8.2%	7.2%	7.1%	7.2%	7.1%	6.6%	4.9%	5.9%	8.2%
Washington	4.0%	7.3%	4.4%	9.1%	11.5%	18.6%	2.5%	6.2%	10.0%	9.0%	9.3%	9.6%	9.2%	8.2%	6.2%	8.1%	10.0%
West Virginia	0.5%	8.0%	(1.4)%	20.9%	(1.3)%	1.8%	1.0%	6.4%	(0.5)%	4.2%	3.8%	3.5%	1.8%	2.4%	2.6%	2.8%	-0.5%
Wisconsin	7.8%	12.0%	(4.2)%	7.6%	1.3%	17.2%	6.2%	(3.2)%	13.9%	5.8%	5.8%	6.7%	6.7%	6.8%	4.5%	5.0%	13.9%
Wyoming	(8.7)%	32.5%	2.1%	(4.1)%	6.4%	20.6%	6.6%	(19.4)%	13.1%	5.1%	3.4%	3.6%	3.7%	1.7%	-3.0%	-4.5%	13.1%
(A) Total x MI	4.2%	7.3%	4.0%	7.3%	8.9%	12.4%	6.5%	4.1%	8.9%	7.6%	7.8%	8.1%	7.9%	7.4%	6.2%	6.5%	8.9%
(B) Regional Total	4.9%	11.2%	1.5%	3.5%	7.1%	14.4%	2.4%	2.5%	6.7%	6.0%	5.9%	6.3%	6.3%	5.6%	3.7%	4.6%	6.7%
(C) Mandatory PIP No-Fault States x MI	1.4%	5.4%	5.5%	7.4%	3.0%	10.0%	5.5%	0.5%	8.6%	5.7%	5.7%	5.6%	5.4%	5.4%	4.3%	4.4%	8.6%
(D) Selected Year-Over-Year Change	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%								

Notes:
(1) thru (18) FastTrack industry data evaluated as of 12/31/24
(B) Regional Total is comprised of the following states: Illinois, Indiana, Ohio, and Wisconsin.
(C) PIP No-Fault States x MI is comprised of the following states: Delaware, Florida, Hawaii, Kansas, Kentucky, Massachusetts, Minnesota, New Jersey, New York, North Dakota, Pennsylvania, and Utah.

Michigan Private Passenger Auto Insurance Study
Michigan P&C Industry Data

Insurance Industry Severity Trend
Property Damage

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
	Change in Year-Over-Year Severity									Exponential Annual Severity Trend (to 2024)							
State	2016	2017	2018	2019	2020	2021	2022	2023	2024	8-Year	7-Year	6-Year	5-Year	4-Year	3-Year	2-Year	1-Year
Alabama	7.1%	1.7%	4.8%	4.2%	5.6%	9.8%	19.4%	7.7%	(0.1)%	7.5%	8.3%	8.9%	9.6%	9.8%	8.6%	3.7%	-0.1%
Alaska	5.3%	7.1%	2.0%	7.4%	7.6%	9.4%	15.7%	15.7%	(0.8)%	8.7%	9.2%	10.1%	10.6%	11.0%	10.5%	7.1%	-0.8%
Arizona	5.0%	4.0%	4.5%	3.5%	8.1%	11.9%	20.7%	9.0%	(1.0)%	8.6%	9.3%	10.1%	10.9%	10.8%	9.2%	3.9%	-1.0%
Arkansas	7.3%	1.3%	2.7%	5.5%	6.7%	10.1%	20.5%	7.7%	(1.7)%	7.7%	8.6%	9.3%	9.8%	9.9%	8.4%	2.9%	-1.7%
California	5.6%	3.9%	5.3%	5.9%	9.9%	5.5%	16.9%	9.2%	2.8%	8.0%	8.6%	9.0%	9.4%	9.4%	9.5%	6.0%	2.8%
Colorado	6.3%	4.6%	6.2%	4.8%	7.4%	9.3%	20.1%	13.2%	(2.0)%	8.8%	9.4%	10.1%	10.9%	11.2%	10.4%	5.3%	-2.0%
Connecticut	5.2%	4.6%	5.0%	6.6%	10.7%	5.3%	21.1%	8.1%	2.5%	8.7%	9.3%	9.8%	10.2%	10.1%	10.1%	5.3%	2.5%
D.C.	4.6%	4.5%	4.8%	6.4%	12.6%	8.9%	13.2%	10.9%	3.9%	8.9%	9.5%	10.0%	10.2%	9.7%	9.4%	7.3%	3.9%
Delaware	6.0%	6.1%	2.5%	6.5%	10.0%	7.5%	20.5%	9.5%	3.7%	8.9%	9.5%	10.4%	11.0%	11.1%	10.9%	6.6%	3.7%
Florida	6.4%	4.0%	5.4%	3.2%	8.3%	8.4%	20.1%	9.8%	0.8%	8.2%	8.9%	9.6%	10.4%	10.6%	9.9%	5.2%	0.8%
Georgia	8.6%	6.2%	4.5%	5.8%	8.6%	11.2%	20.2%	8.2%	0.1%	9.0%	9.5%	10.2%	10.7%	10.5%	9.1%	4.1%	0.1%
Hawaii	5.5%	6.1%	7.2%	6.4%	10.1%	0.3%	15.4%	11.6%	2.4%	7.7%	7.9%	8.0%	8.3%	8.4%	9.8%	6.9%	2.4%
Idaho	6.7%	2.4%	7.7%	8.7%	5.4%	9.7%	20.4%	7.4%	2.8%	8.9%	9.5%	9.8%	10.1%	10.6%	9.7%	5.1%	2.8%
Illinois	6.4%	3.9%	4.8%	4.6%	11.2%	7.7%	19.7%	8.7%	0.2%	8.5%	9.1%	9.8%	10.3%	9.9%	9.2%	4.4%	0.2%
Indiana	6.3%	4.0%	4.8%	4.8%	9.4%	9.8%	20.3%	10.6%	(1.3)%	8.8%	9.5%	10.2%	10.9%	10.7%	9.6%	4.5%	-1.3%
Iowa	5.5%	4.8%	6.0%	4.5%	6.0%	11.9%	16.9%	9.4%	(1.1)%	8.1%	8.6%	9.1%	9.7%	9.8%	8.2%	4.0%	-1.1%
Kansas	3.8%	6.0%	5.3%	3.8%	6.0%	9.7%	19.6%	9.8%	(1.0)%	8.1%	8.6%	9.2%	10.0%	10.3%	9.2%	4.2%	-1.0%
Kentucky	12.8%	2.5%	(2.1)%	6.9%	7.8%	10.7%	19.8%	7.0%	1.5%	7.8%	8.7%	9.9%	10.3%	10.3%	8.9%	4.2%	1.5%
Louisiana	5.4%	1.7%	1.4%	4.0%	7.6%	11.8%	19.7%	4.6%	(1.7)%	7.3%	8.1%	9.0%	9.4%	9.0%	6.9%	1.4%	-1.7%
Maine	2.9%	6.8%	3.1%	4.2%	11.5%	7.8%	20.6%	10.0%	2.1%	8.9%	9.5%	10.4%	11.2%	11.0%	10.6%	6.0%	2.1%
Maryland	4.0%	4.9%	3.8%	7.3%	9.7%	8.7%	19.1%	10.7%	0.3%	8.9%	9.6%	10.3%	10.6%	10.5%	9.9%	5.4%	0.3%
Massachusetts	5.1%	3.1%	5.5%	3.9%	15.1%	4.8%	16.3%	8.4%	2.7%	8.2%	8.8%	9.3%	9.6%	8.8%	8.9%	5.5%	2.7%
Michigan	6.7%	2.1%	7.3%	4.9%	12.2%	23.5%	14.5%	10.6%	(2.7)%	10.7%	11.6%	12.2%	12.6%	11.4%	7.5%	3.8%	-2.7%
Minnesota	6.6%	4.8%	4.9%	5.6%	5.7%	11.3%	19.0%	10.7%	0.9%	8.6%	9.2%	10.0%	10.7%	11.1%	10.0%	5.7%	0.9%
Mississippi	5.5%	0.6%	5.6%	4.6%	7.1%	10.4%	19.0%	8.0%	0.3%	8.0%	8.8%	9.4%	10.0%	10.0%	8.7%	4.1%	0.3%
Missouri	5.5%	5.4%	6.0%	3.1%	6.1%	12.3%	17.6%	10.5%	(0.7)%	8.3%	8.8%	9.5%	10.3%	10.5%	9.0%	4.8%	-0.7%
Montana	4.9%	1.5%	6.0%	6.2%	9.4%	10.3%	14.8%	10.2%	7.5%	8.9%	9.7%	10.3%	10.9%	11.0%	10.7%	8.9%	7.5%
Nebraska	5.6%	4.5%	6.8%	7.6%	2.8%	13.0%	20.0%	7.9%	1.7%	8.7%	9.3%	9.8%	10.3%	11.1%	9.4%	4.8%	1.7%
Nevada	5.8%	2.9%	5.8%	4.3%	8.6%	8.2%	19.4%	9.7%	3.1%	8.4%	9.2%	9.8%	10.6%	10.8%	10.4%	6.3%	3.1%
New Hampshire	5.1%	7.4%	3.4%	4.5%	10.5%	6.0%	19.9%	11.0%	2.9%	8.6%	9.2%	10.0%	10.7%	10.8%	11.0%	6.9%	2.9%
New Jersey	4.8%	3.4%	3.2%	5.2%	11.0%	4.5%	18.0%	10.2%	5.3%	8.1%	8.9%	9.6%	10.2%	10.3%	11.0%	7.8%	5.3%
New Mexico	5.7%	3.5%	6.0%	2.9%	7.3%	6.7%	21.1%	7.1%	1.6%	7.6%	8.2%	8.8%	9.6%	9.8%	9.3%	4.3%	1.6%
New York	6.0%	3.2%	5.5%	6.9%	8.3%	9.0%	18.2%	9.5%	1.9%	8.7%	9.3%	9.8%	10.2%	10.3%	9.7%	5.7%	1.9%
North Carolina	5.7%	6.5%	4.1%	6.7%	6.0%	12.2%	20.8%	8.4%	(0.0)%	8.9%	9.4%	10.2%	10.7%	10.9%	9.3%	4.1%	0.0%
North Dakota	6.1%	3.0%	6.3%	2.3%	4.2%	12.8%	11.3%	13.6%	(0.8)%	7.2%	7.8%	8.4%	9.3%	9.7%	8.4%	6.2%	-0.8%
Ohio	6.9%	2.9%	4.5%	6.1%	9.7%	10.8%	19.0%	8.6%	2.5%	9.0%	9.8%	10.5%	11.0%	10.8%	9.7%	5.5%	2.5%
Oklahoma	7.1%	1.7%	4.3%	3.9%	4.8%	10.8%	19.4%	9.3%	(0.2)%	7.6%	8.5%	9.2%	10.1%	10.5%	9.2%	4.5%	-0.2%
Oregon	8.4%	3.6%	5.4%	5.9%	8.5%	9.2%	20.2%	9.4%	(0.0)%	8.7%	9.4%	10.0%	10.5%	10.5%	9.5%	4.6%	0.0%
Pennsylvania	4.3%	4.7%	2.4%	6.8%	8.3%	6.1%	18.9%	7.8%	2.4%	7.8%	8.4%	9.1%	9.4%	9.5%	9.3%	5.1%	2.4%
Rhode Island	6.7%	3.3%	4.8%	4.0%	9.6%	3.5%	24.3%	9.2%	0.4%	8.1%	8.8%	9.5%	10.3%	10.5%	10.7%	4.7%	0.4%
South Carolina	9.4%	4.5%	6.7%	8.0%	9.6%	12.0%	21.4%	11.7%	(0.2)%	10.3%	11.0%	11.6%	12.1%	12.0%	10.7%	5.6%	-0.2%
South Dakota	5.6%	3.9%	9.0%	2.2%	3.8%	14.7%	17.2%	6.2%	4.7%	8.2%	8.7%	9.2%	10.3%	10.8%	8.9%	5.4%	4.7%
Tennessee	6.5%	2.3%	4.2%	4.9%	8.7%	8.9%	20.8%	8.1%	0.9%	8.3%	9.1%	9.8%	10.4%	10.4%	9.5%	4.4%	0.9%
Texas	4.8%	3.2%	3.2%	3.8%	9.4%	8.9%	20.0%	11.3%	(0.7)%	8.3%	9.1%	10.1%	10.8%	10.8%	10.0%	5.1%	-0.7%
Utah	6.8%	3.5%	4.7%	6.2%	5.7%	10.5%	20.4%	7.5%	(0.4)%	8.2%	8.8%	9.4%	9.9%	10.1%	8.7%	3.5%	-0.4%
Vermont	2.5%	3.2%	6.2%	3.2%	12.0%	4.4%	18.0%	8.3%	7.6%	8.2%	8.9%	9.4%	10.2%	10.2%	10.9%	8.0%	7.6%
Virginia	5.1%	5.1%	4.0%	6.6%	9.9%	7.7%	20.4%	8.3%	0.2%	8.6%	9.2%	9.8%	10.1%	9.9%	9.2%	4.1%	0.2%
Washington	7.5%	3.2%	6.8%	4.2%	10.4%	7.8%	20.4%	10.4%	3.4%	9.1%	9.8%	10.4%	11.2%	11.3%	11.1%	6.8%	3.4%
West Virginia	3.9%	6.1%	7.5%	4.5%	8.0%	8.1%	19.3%	8.0%	2.7%	8.5%	8.9%	9.4%	10.0%	10.2%	9.6%	5.3%	2.7%
Wisconsin	6.3%	4.3%	4.8%	4.3%	6.9%	10.1%	20.7%	7.6%	2.5%	8.3%	9.0%	9.8%	10.5%	10.8%	9.8%	5.0%	2.5%
Wyoming	5.2%	(0.1)%	8.4%	6.1%	6.5%	4.5%	15.4%	10.8%	2.1%	7.4%	8.0%	8.1%	8.6%	9.0%	9.4%	6.4%	2.1%
(A) Total x MI	6.0%	3.9%	4.6%	5.3%	8.8%	8.6%	19.2%	9.3%	1.2%	8.4%	9.1%	9.7%	10.3%	10.3%	9.6%	5.2%	1.2%
(B) Regional Total	6.5%	3.6%	4.7%	5.1%	9.9%	9.3%	19.7%	8.9%	0.8%	8.7%	9.4%	10.1%	10.6%	10.4%	9.5%	4.8%	0.8%
(C) Mandatory PIP No-Fault States x MI	5.9%	3.9%	4.3%	5.4%	8.5%	7.8%	18.9%	9.3%	2.0%	8.2%	8.9%	9.6%	10.1%	10.3%	9.8%	5.6%	2.0%
(D) Selected Year-Over-Year Change	5.0%	5.0%	5.0%	5.0%	8.5%	8.0%	19.0%	9.0%	1.0%								

Notes:
(1) thru (18) FastTrack industry data evaluated as of 12/31/24
(B) Regional Total is comprised of the following states: Illinois, Indiana, Ohio, and Wisconsin.
(C) PIP No-Fault States x MI is comprised of the following states: Delaware, Florida, Hawaii, Kansas, Kentucky, Massachusetts, Minnesota, New Jersey, New York, North Dakota, Pennsylvania, and Utah.

Michigan Private Passenger Auto Insurance Study
Michigan P&C Industry Data

Insurance Industry Severity Trend
Personal Injury Protection

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
	Change in Year-Over-Year Severity									Exponential Annual Severity Trend (to 2024)							
State	2016	2017	2018	2019	2020	2021	2022	2023	2024	8-Year	7-Year	6-Year	5-Year	4-Year	3-Year	2-Year	1-Year
Alabama	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alaska	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Arizona	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Arkansas	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
California	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Colorado	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Connecticut	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
D.C.	(0.0)%	2.1%	4.2%	6.5%	9.5%	27.0%	(6.5)%	(0.3)%	9.7%	6.8%	7.2%	7.1%	6.5%	4.6%	0.6%	4.6%	9.7%
Delaware	1.1%	(10.8)%	(3.0)%	8.4%	(13.2)%	22.4%	8.7%	2.3%	0.6%	2.7%	4.2%	5.0%	5.5%	7.6%	3.6%	1.4%	0.6%
Florida	(4.3)%	4.5%	(4.1)%	6.4%	(0.3)%	1.4%	(8.5)%	8.6%	(0.1)%	0.6%	0.4%	0.5%	-0.1%	0.1%	0.6%	4.2%	-0.1%
Georgia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Hawaii	2.1%	(8.0)%	4.3%	(1.0)%	0.4%	13.2%	0.3%	7.6%	(9.5)%	2.2%	3.0%	3.0%	3.3%	2.8%	0.0%	-1.3%	-9.5%
Idaho	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Illinois	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Indiana	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Iowa	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Kansas	(4.0)%	7.0%	1.2%	(3.2)%	9.1%	12.0%	1.9%	0.3%	(3.3)%	3.6%	3.5%	3.8%	4.0%	2.3%	-0.3%	-1.5%	-3.3%
Kentucky	(5.5)%	(2.1)%	(2.2)%	(0.1)%	(1.7)%	12.7%	3.6%	(1.2)%	(0.2)%	1.7%	2.3%	2.8%	3.2%	3.1%	0.5%	-0.7%	-0.2%
Louisiana	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Maine	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Maryland	(0.7)%	1.0%	2.8%	0.4%	3.8%	6.9%	(1.3)%	0.3%	1.3%	2.1%	2.2%	2.1%	2.0%	1.3%	0.1%	0.8%	1.3%
Massachusetts	(6.6)%	3.6%	(6.3)%	12.0%	1.0%	20.3%	6.7%	(1.3)%	(1.4)%	5.3%	5.8%	6.6%	5.7%	5.1%	1.0%	-1.3%	-1.4%
Michigan	11.7%	2.8%	6.1%	9.4%	10.5%	(4.8)%	(22.5)%	13.8%	(8.5)%	0.2%	-0.8%	-2.4%	-4.5%	-6.3%	-5.0%	2.1%	-8.5%
Minnesota	6.3%	(4.0)%	2.3%	(4.7)%	13.3%	13.1%	(3.2)%	7.1%	2.3%	3.9%	4.8%	5.3%	5.8%	4.1%	2.5%	4.7%	2.3%
Mississippi	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Missouri	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Montana	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nebraska	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nevada	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
New Hampshire	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
New Jersey	1.3%	(0.7)%	0.9%	4.8%	7.3%	15.7%	(4.7)%	(0.2)%	2.5%	3.8%	4.2%	4.2%	3.5%	1.9%	-0.8%	1.1%	2.5%
New Mexico	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
New York	3.4%	11.0%	1.6%	(1.0)%	22.0%	19.1%	(7.4)%	11.1%	7.5%	7.8%	7.9%	8.5%	8.7%	6.0%	4.2%	9.3%	7.5%
North Carolina	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
North Dakota	(3.6)%	5.8%	4.6%	(3.1)%	12.1%	15.6%	(5.8)%	3.0%	7.9%	4.8%	4.8%	5.0%	5.3%	3.6%	1.7%	5.4%	7.9%
Ohio	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Oklahoma	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Oregon	6.6%	(5.9)%	6.3%	10.5%	(4.0)%	26.1%	5.3%	10.8%	(1.0)%	7.1%	8.2%	8.5%	8.6%	9.5%	5.5%	4.7%	-1.0%
Pennsylvania	(0.9)%	(1.9)%	4.4%	(4.8)%	6.0%	6.6%	1.5%	1.6%	1.7%	2.2%	2.6%	2.7%	3.3%	2.6%	1.6%	1.6%	1.7%
Rhode Island	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
South Carolina	4.4%	4.0%	1.2%	10.6%	7.3%	6.2%	(1.8)%	(4.9)%	3.4%	3.5%	3.2%	2.7%	1.2%	-0.2%	-1.6%	-0.9%	3.4%
South Dakota	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tennessee	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Texas	7.1%	(1.0)%	1.4%	2.5%	4.4%	16.6%	(9.5)%	2.0%	2.4%	2.7%	2.9%	2.9%	2.4%	1.2%	-1.4%	2.2%	2.4%
Utah	1.8%	(1.7)%	(0.6)%	0.2%	1.5%	10.8%	7.6%	3.2%	6.5%	3.8%	4.6%	5.4%	6.2%	6.7%	5.5%	4.8%	6.5%
Vermont	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Virginia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Washington	9.1%	(5.2)%	2.1%	0.4%	5.9%	25.1%	(0.2)%	9.4%	(2.2)%	5.7%	6.8%	7.5%	7.9%	6.9%	2.9%	3.4%	-2.2%
West Virginia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Wisconsin	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Wyoming	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
(A) Total x MI	(0.2)%	2.3%	1.4%	2.4%	7.6%	12.2%	(3.8)%	7.5%	4.2%	4.4%	4.7%	5.1%	5.0%	4.2%	3.0%	5.8%	4.2%
(B) Regional Total	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
(C) Mandatory PIP No-Fault States x MI	(0.7)%	3.6%	(0.2)%	1.8%	7.9%	10.6%	(3.5)%	8.2%	5.2%	4.2%	4.5%	5.0%	5.1%	4.4%	3.7%	6.7%	5.2%
(D) Selected Year-Over-Year Change	2.0%	2.0%	2.0%	2.0%	4.5%	4.5%	4.5%	4.5%	4.5%								

Notes:
(1) thru (18) FastTrack industry data evaluated as of 12/31/24
(B) Regional Total is comprised of the following states: Illinois, Indiana, Ohio, and Wisconsin.
(C) PIP No-Fault States x MI is comprised of the following states: Delaware, Florida, Hawaii, Kansas, Kentucky, Massachusetts, Minnesota, New Jersey, New York, North Dakota, Pennsylvania, and Utah.

Michigan Private Passenger Auto Insurance Study
Michigan P&C Industry Data

Insurance Industry Severity Trend
Collision

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
	Change in Year-Over-Year Severity									Exponential Annual Severity Trend (to 2024)							
State	2016	2017	2018	2019	2020	2021	2022	2023	2024	8-Year	7-Year	6-Year	5-Year	4-Year	3-Year	2-Year	1-Year
Alabama	4.8%	(1.1)%	5.9%	3.4%	(2.6)%	17.2%	13.2%	4.2%	(3.5)%	5.6%	6.2%	6.5%	7.1%	7.7%	4.4%	0.3%	-3.5%
Alaska	4.0%	1.1%	5.5%	6.1%	2.6%	15.5%	10.7%	7.0%	8.2%	7.5%	8.2%	8.8%	9.4%	10.0%	8.4%	7.6%	8.2%
Arizona	4.0%	(0.0)%	2.0%	6.4%	(2.0)%	26.1%	18.3%	1.7%	(5.0)%	7.3%	8.2%	9.0%	9.4%	9.6%	4.3%	-1.7%	-5.0%
Arkansas	3.4%	1.0%	3.1%	6.3%	1.7%	16.8%	14.5%	3.8%	(5.3)%	6.5%	7.1%	7.5%	7.6%	7.5%	4.0%	-0.9%	-5.3%
California	9.9%	1.7%	4.2%	6.9%	(4.6)%	21.7%	16.1%	4.5%	(3.1)%	6.8%	7.5%	8.0%	8.6%	9.5%	5.5%	0.7%	-3.1%
Colorado	7.4%	1.7%	5.8%	4.6%	(2.4)%	18.7%	22.9%	3.7%	(3.2)%	7.5%	8.2%	8.8%	9.7%	10.6%	6.9%	0.2%	-3.2%
Connecticut	5.8%	(1.6)%	5.3%	4.0%	3.1%	21.7%	18.6%	(0.2)%	(3.2)%	7.5%	8.4%	8.8%	9.2%	8.7%	4.2%	-1.7%	-3.2%
D.C.	1.1%	0.4%	8.9%	5.1%	12.2%	17.0%	15.8%	2.2%	(4.2)%	8.8%	9.5%	9.4%	9.3%	7.6%	4.1%	-1.0%	-4.2%
Delaware	4.1%	(3.1)%	6.7%	8.5%	0.5%	20.5%	24.3%	(4.3)%	(3.2)%	7.8%	8.7%	8.9%	8.8%	8.6%	3.8%	-3.8%	-3.2%
Florida	2.6%	1.1%	4.4%	4.4%	5.2%	22.9%	21.0%	(1.4)%	(3.7)%	8.3%	9.1%	9.6%	9.9%	9.1%	4.1%	-2.6%	-3.7%
Georgia	6.9%	(1.7)%	5.4%	5.9%	1.6%	23.7%	14.9%	1.2%	(3.9)%	7.4%	8.2%	8.6%	8.7%	8.3%	3.5%	-1.4%	-3.9%
Hawaii	11.2%	0.8%	11.0%	3.2%	(5.3)%	17.2%	18.4%	6.4%	(0.7)%	6.9%	7.5%	7.7%	8.9%	10.5%	7.6%	2.8%	-0.7%
Idaho	5.0%	(1.7)%	9.8%	1.9%	2.6%	16.2%	17.7%	4.2%	(1.7)%	7.3%	8.0%	8.2%	9.1%	9.2%	6.2%	1.2%	-1.7%
Illinois	5.6%	1.5%	6.0%	3.5%	4.6%	19.4%	14.3%	(5.8)%	(5.0)%	6.1%	6.4%	6.4%	6.2%	4.8%	0.0%	-5.4%	-5.0%
Indiana	3.0%	(1.0)%	6.0%	5.0%	1.9%	21.6%	15.1%	3.3%	(6.7)%	7.2%	7.9%	8.2%	8.5%	8.1%	3.5%	-1.8%	-6.7%
Iowa	4.7%	1.5%	6.5%	3.2%	1.9%	15.3%	17.2%	6.5%	(5.3)%	7.0%	7.6%	8.0%	8.6%	8.8%	5.8%	0.4%	-5.3%
Kansas	3.0%	1.6%	4.4%	3.9%	0.6%	20.5%	13.4%	7.0%	(1.9)%	7.2%	7.9%	8.6%	9.3%	9.6%	6.1%	2.4%	-1.9%
Kentucky	9.9%	(3.3)%	0.5%	6.2%	3.5%	17.8%	16.8%	3.7%	(5.4)%	6.6%	7.7%	8.5%	8.6%	8.2%	4.5%	-1.0%	-5.4%
Louisiana	6.6%	(4.9)%	5.1%	3.4%	3.0%	19.9%	13.2%	0.9%	(4.0)%	6.1%	7.1%	7.4%	7.7%	7.0%	2.9%	-1.6%	-4.0%
Maine	7.7%	(2.9)%	8.8%	4.3%	5.1%	14.0%	19.3%	5.3%	2.7%	8.2%	9.2%	9.6%	10.3%	10.5%	8.5%	4.0%	2.7%
Maryland	5.3%	(0.8)%	7.0%	6.4%	2.8%	22.7%	16.2%	(0.6)%	(2.1)%	7.9%	8.6%	8.8%	8.9%	8.3%	3.7%	-1.3%	-2.1%
Massachusetts	2.3%	1.2%	4.2%	2.3%	0.4%	26.0%	14.6%	(0.3)%	(3.0)%	6.9%	7.6%	8.1%	8.7%	8.3%	3.1%	-1.6%	-3.0%
Michigan	4.7%	3.4%	5.8%	7.1%	3.0%	13.6%	16.3%	5.3%	0.8%	7.7%	8.2%	8.6%	8.9%	9.2%	7.0%	3.0%	0.8%
Minnesota	5.2%	(0.8)%	8.7%	1.9%	1.7%	19.8%	19.4%	1.8%	3.7%	7.9%	8.8%	9.3%	10.4%	10.7%	7.4%	2.7%	3.7%
Mississippi	3.2%	1.4%	4.3%	6.1%	3.3%	15.3%	14.5%	2.8%	(3.6)%	6.7%	7.2%	7.5%	7.6%	7.3%	4.2%	-0.4%	-3.6%
Missouri	1.8%	2.8%	4.1%	5.6%	(0.9)%	19.8%	16.3%	4.5%	(1.3)%	7.3%	7.9%	8.5%	9.1%	9.6%	6.1%	1.6%	-1.3%
Montana	1.4%	4.3%	(0.2)%	11.9%	1.8%	11.1%	14.9%	2.7%	(0.6)%	6.6%	7.0%	7.4%	7.0%	7.2%	5.2%	1.1%	-0.6%
Nebraska	4.9%	0.7%	6.8%	5.2%	4.7%	19.4%	18.4%	2.8%	2.0%	8.6%	9.5%	10.0%	10.5%	10.3%	7.0%	2.4%	2.0%
Nevada	0.7%	0.5%	(0.2)%	5.7%	(3.9)%	24.5%	17.2%	2.2%	(4.6)%	6.3%	7.2%	8.2%	8.7%	9.3%	4.3%	-1.3%	-4.6%
New Hampshire	6.6%	2.4%	6.9%	3.5%	1.0%	15.7%	18.8%	4.9%	0.8%	7.5%	8.1%	8.6%	9.5%	10.2%	7.6%	2.8%	0.8%
New Jersey	1.6%	(0.4)%	6.4%	3.8%	3.6%	19.7%	17.9%	(0.8)%	(4.1)%	7.2%	7.9%	8.1%	8.4%	7.7%	3.4%	-2.5%	-4.1%
New Mexico	3.2%	0.6%	3.2%	4.5%	(2.9)%	23.6%	15.5%	4.9%	(4.8)%	6.7%	7.5%	8.2%	8.9%	9.4%	4.9%	0.0%	-4.8%
New York	4.8%	(0.5)%	5.2%	6.7%	4.0%	20.3%	17.6%	1.9%	(1.0)%	8.2%	9.0%	9.5%	9.7%	9.3%	5.5%	0.4%	-1.0%
North Carolina	5.5%	0.7%	7.1%	4.5%	2.8%	18.2%	16.8%	2.8%	(1.7)%	7.5%	8.2%	8.5%	9.0%	8.9%	5.4%	0.6%	-1.7%
North Dakota	2.8%	(4.6)%	7.4%	4.2%	0.1%	19.8%	7.4%	5.3%	4.3%	6.3%	7.3%	7.5%	8.1%	8.5%	5.6%	4.8%	4.3%
Ohio	4.4%	0.0%	5.2%	5.1%	4.0%	18.8%	18.1%	3.4%	(0.6)%	8.0%	8.9%	9.4%	9.9%	9.7%	6.3%	1.4%	-0.6%
Oklahoma	2.1%	(1.3)%	8.0%	4.2%	(2.6)%	15.3%	16.3%	4.7%	(3.9)%	6.1%	6.7%	6.9%	7.5%	8.3%	5.3%	0.3%	-3.9%
Oregon	6.3%	1.8%	2.2%	4.5%	(0.2)%	20.9%	19.8%	4.1%	(2.1)%	7.5%	8.3%	9.3%	10.1%	10.5%	6.6%	1.0%	-2.1%
Pennsylvania	4.3%	(8.4)%	4.2%	1.9%	0.3%	20.3%	15.3%	0.8%	(3.7)%	5.4%	6.7%	7.2%	7.8%	7.7%	3.5%	-1.5%	-3.7%
Rhode Island	7.2%	(1.6)%	5.5%	4.7%	2.6%	20.7%	16.4%	4.3%	(4.5)%	7.5%	8.4%	8.9%	9.3%	9.1%	5.0%	-0.2%	-4.5%
South Carolina	6.2%	1.6%	4.4%	5.5%	1.3%	22.7%	16.1%	2.4%	(3.6)%	7.6%	8.3%	8.8%	9.1%	8.9%	4.4%	-0.7%	-3.6%
South Dakota	3.0%	0.5%	6.6%	2.6%	5.0%	16.5%	16.1%	(0.4)%	5.3%	7.3%	8.0%	8.4%	9.1%	8.8%	6.0%	2.4%	5.3%
Tennessee	2.8%	(0.1)%	3.7%	5.3%	3.1%	20.6%	15.9%	1.6%	(4.9)%	7.1%	7.9%	8.3%	8.5%	7.9%	3.6%	-1.7%	-4.9%
Texas	2.7%	(1.8)%	4.8%	3.4%	2.2%	19.7%	18.2%	1.2%	(1.8)%	7.0%	8.0%	8.5%	9.1%	9.0%	5.1%	-0.3%	-1.8%
Utah	4.0%	0.9%	4.7%	6.0%	(1.0)%	18.3%	17.3%	4.3%	(5.1)%	6.9%	7.5%	8.0%	8.4%	8.7%	5.0%	-0.5%	-5.1%
Vermont	16.9%	(8.5)%	9.6%	0.4%	4.3%	18.4%	13.7%	4.0%	2.8%	6.9%	8.2%	8.5%	9.5%	9.4%	6.5%	3.4%	2.8%
Virginia	3.5%	1.5%	6.3%	4.1%	3.8%	21.1%	15.6%	3.3%	(1.0)%	8.0%	8.7%	9.2%	9.7%	9.4%	5.5%	1.1%	-1.0%
Washington	4.0%	2.9%	1.7%	5.8%	0.3%	22.7%	21.6%	5.2%	(0.5)%	8.5%	9.5%	10.6%	11.5%	12.1%	8.0%	2.3%	-0.5%
West Virginia	1.3%	0.2%	8.6%	3.8%	3.6%	17.4%	13.3%	4.0%	(2.2)%	7.2%	7.8%	7.9%	8.3%	8.0%	4.8%	0.9%	-2.2%
Wisconsin	1.4%	1.9%	7.3%	4.0%	0.2%	21.0%	18.0%	4.3%	(1.6)%	7.9%	8.6%	9.0%	9.8%	10.2%	6.4%	1.3%	-1.6%
Wyoming	4.2%	0.1%	2.1%	8.0%	(1.4)%	12.7%	9.4%	9.9%	0.0%	5.8%	6.5%	7.0%	7.3%	8.3%	6.7%	4.8%	0.0%
(A) Total x MI	5.2%	(0.2)%	4.8%	4.9%	0.8%	20.7%	17.0%	2.1%	(2.8)%	7.2%	8.0%	8.5%	8.9%	8.9%	4.8%	-0.4%	-2.8%
(B) Regional Total	4.4%	0.7%	5.9%	4.3%	3.4%	19.8%	15.9%	(0.6)%	(3.6)%	7.0%	7.6%	7.9%	8.1%	7.4%	3.1%	-2.1%	-3.6%
(C) Mandatory PIP No-Fault States x MI	3.9%	(1.8)%	4.8%	4.2%	2.5%	21.1%	18.0%	0.5%	(2.9)%	7.2%	8.2%	8.7%	9.1%	8.7%	4.4%	-1.2%	-2.9%
(D) Selected Year-Over-Year Change	3.0%	3.0%	3.0%	3.0%	3.0%	13.0%	16.0%	5.0%	0.0%								

Notes:
(1) thru (18) FastTrack industry data evaluated as of 12/31/24
(B) Regional Total is comprised of the following states: Illinois, Indiana, Ohio, and Wisconsin.
(C) PIP No-Fault States x MI is comprised of the following states: Delaware, Florida, Hawaii, Kansas, Kentucky, Massachusetts, Minnesota, New Jersey, New York, North Dakota, Pennsylvania, and Utah.

Michigan Private Passenger Auto Insurance Study
Michigan P&C Industry Data

Insurance Industry Severity Trend
Comprehensive (Other than Collision)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
	Change in Year-Over-Year Severity									Exponential Annual Severity Trend (to 2024)							
State	2016	2017	2018	2019	2020	2021	2022	2023	2024	8-Year	7-Year	6-Year	5-Year	4-Year	3-Year	2-Year	1-Year
Alabama	7.1%	14.7%	(0.8)%	(6.7)%	28.8%	(1.5)%	5.6%	19.6%	(5.2)%	6.5%	6.5%	7.5%	8.3%	5.8%	7.5%	6.5%	-5.2%
Alaska	15.2%	25.2%	9.3%	(7.7)%	14.5%	1.9%	28.6%	1.4%	(7.7)%	7.6%	6.6%	7.0%	8.3%	7.0%	5.9%	-3.3%	-7.7%
Arizona	1.9%	0.7%	10.8%	(2.3)%	8.3%	17.4%	10.5%	9.9%	1.7%	7.9%	8.6%	9.0%	10.3%	9.8%	7.5%	5.7%	1.7%
Arkansas	29.5%	(13.4)%	4.0%	(2.1)%	15.2%	(8.1)%	48.5%	13.0%	(14.9)%	6.6%	8.8%	9.9%	11.3%	11.2%	12.6%	-2.0%	-14.9%
California	1.3%	7.9%	1.9%	(2.9)%	8.1%	15.0%	14.5%	18.1%	0.4%	8.2%	9.0%	10.5%	12.3%	12.7%	11.4%	8.9%	0.4%
Colorado	50.7%	23.8%	21.1%	(35.2)%	(13.5)%	(6.3)%	17.3%	81.6%	(9.1)%	2.4%	2.2%	4.5%	13.7%	21.5%	29.5%	28.5%	-9.1%
Connecticut	9.4%	11.1%	21.3%	(13.3)%	33.3%	21.8%	(11.2)%	25.6%	(2.5)%	10.1%	9.9%	9.5%	11.0%	7.0%	4.9%	10.7%	-2.5%
D.C.	8.3%	3.1%	10.3%	(5.6)%	21.6%	4.1%	16.1%	25.4%	(8.8)%	9.1%	9.8%	10.5%	12.1%	10.8%	11.4%	6.9%	-8.8%
Delaware	13.5%	4.1%	(0.5)%	4.1%	21.7%	2.5%	13.2%	21.0%	(4.1)%	8.7%	9.5%	10.6%	10.9%	9.5%	10.6%	7.7%	-4.1%
Florida	7.9%	32.9%	(5.8)%	(16.4)%	31.0%	(12.2)%	140.5%	(31.5)%	38.4%	12.5%	13.1%	16.9%	21.5%	20.8%	23.3%	-2.7%	38.4%
Georgia	10.3%	11.1%	(2.8)%	5.3%	13.4%	2.5%	13.0%	14.8%	4.3%	7.7%	8.1%	9.3%	9.7%	9.6%	11.0%	9.4%	4.3%
Hawaii	3.8%	(1.7)%	25.4%	(16.1)%	2.5%	7.0%	2.2%	55.1%	(32.5)%	4.3%	4.6%	4.2%	7.1%	7.6%	6.6%	2.3%	-32.5%
Idaho	2.9%	0.9%	37.8%	(18.3)%	16.6%	4.4%	19.0%	12.2%	(9.0)%	7.7%	7.6%	6.5%	9.4%	8.0%	7.3%	1.1%	-9.0%
Illinois	5.9%	16.5%	(14.3)%	10.0%	18.6%	(5.1)%	15.8%	21.8%	0.0%	7.4%	7.8%	10.1%	10.0%	9.7%	13.1%	10.4%	0.0%
Indiana	5.4%	5.2%	(5.7)%	10.6%	10.3%	10.4%	11.8%	18.6%	0.8%	8.5%	9.5%	11.0%	11.1%	11.2%	11.0%	9.4%	0.8%
Iowa	5.9%	26.8%	(1.3)%	(9.4)%	37.8%	(10.4)%	34.7%	(1.9)%	(1.4)%	7.9%	7.3%	8.5%	9.5%	6.0%	8.0%	-1.7%	-1.4%
Kansas	12.3%	5.4%	(8.5)%	7.4%	(5.0)%	10.2%	23.5%	14.8%	10.0%	6.8%	8.1%	10.5%	12.1%	15.4%	15.8%	12.4%	10.0%
Kentucky	11.6%	0.3%	(9.6)%	5.3%	16.5%	2.6%	25.7%	14.8%	(0.7)%	7.9%	9.5%	11.8%	12.4%	12.1%	12.9%	6.8%	-0.7%
Louisiana	218.4%	(58.9)%	(8.9)%	19.0%	41.9%	20.5%	(34.1)%	16.5%	2.1%	0.2%	6.6%	6.3%	2.3%	-3.7%	-5.6%	9.1%	2.1%
Maine	(10.4)%	11.6%	2.7%	4.9%	18.5%	5.9%	14.5%	10.8%	15.4%	10.2%	10.6%	11.7%	12.3%	11.8%	13.2%	13.0%	15.4%
Maryland	11.1%	2.9%	3.6%	0.0%	12.8%	0.6%	23.7%	21.5%	(4.2)%	8.2%	9.2%	10.4%	11.8%	12.2%	13.7%	7.9%	-4.2%
Massachusetts	(7.9)%	1.5%	15.0%	(6.2)%	20.1%	12.9%	(1.4)%	24.6%	(3.7)%	8.3%	8.8%	8.8%	10.0%	8.2%	7.5%	9.5%	-3.7%
Michigan	5.4%	7.8%	(0.3)%	11.2%	13.8%	15.0%	6.7%	17.7%	(6.7)%	9.4%	9.8%	10.5%	9.9%	8.6%	6.6%	4.8%	-6.7%
Minnesota	2.7%	20.9%	(14.9)%	21.3%	3.9%	6.5%	49.4%	(1.5)%	(1.9)%	10.2%	10.6%	13.0%	12.4%	13.3%	11.5%	-1.7%	-1.9%
Mississippi	14.3%	2.3%	(9.1)%	13.8%	33.3%	(5.9)%	4.9%	25.6%	(15.5)%	7.3%	8.0%	8.9%	7.0%	3.7%	5.6%	3.0%	-15.5%
Missouri	5.5%	10.6%	(15.0)%	10.6%	20.9%	(7.0)%	25.0%	18.9%	15.1%	8.9%	10.2%	13.1%	13.6%	14.2%	19.5%	17.0%	15.1%
Montana	49.0%	(34.7)%	9.7%	45.2%	(22.0)%	(1.8)%	33.7%	(8.8)%	(1.3)%	2.6%	5.2%	3.6%	1.2%	5.4%	4.7%	-5.2%	-1.3%
Nebraska	22.1%	32.9%	(30.3)%	45.0%	(18.8)%	2.7%	76.1%	(19.1)%	36.1%	8.7%	9.1%	13.3%	12.5%	18.9%	19.4%	4.9%	36.1%
Nevada	4.4%	1.8%	16.5%	0.3%	12.5%	8.3%	25.5%	18.4%	(8.9)%	10.5%	11.2%	11.3%	12.6%	12.3%	11.4%	3.9%	-8.9%
New Hampshire	4.5%	9.6%	2.1%	(0.7)%	13.3%	12.3%	9.6%	15.4%	5.2%	8.5%	9.0%	10.2%	11.4%	10.9%	10.5%	10.1%	5.2%
New Jersey	6.0%	5.0%	17.4%	(6.4)%	22.7%	96.7%	(46.9)%	24.2%	6.2%	9.8%	9.7%	8.7%	8.2%	2.2%	-8.2%	14.8%	6.2%
New Mexico	7.4%	23.2%	1.5%	(19.2)%	(7.6)%	31.2%	14.3%	13.8%	(3.3)%	5.0%	4.9%	7.2%	11.6%	13.5%	8.5%	4.9%	-3.3%
New York	9.5%	5.6%	2.2%	6.5%	24.5%	36.3%	(13.6)%	31.2%	(0.2)%	12.0%	12.9%	13.8%	13.5%	10.4%	6.6%	14.4%	-0.2%
North Carolina	24.8%	(10.0)%	16.8%	(1.5)%	6.4%	(2.0)%	16.3%	13.2%	12.2%	6.2%	7.5%	7.4%	9.2%	10.7%	13.8%	12.7%	12.2%
North Dakota	30.2%	(20.7)%	14.7%	18.2%	(7.0)%	26.8%	(2.2)%	1.8%	1.1%	5.4%	6.9%	5.7%	4.5%	4.9%	0.4%	1.4%	1.1%
Ohio	7.5%	7.5%	(4.8)%	14.8%	11.9%	3.7%	26.5%	12.6%	(2.6)%	9.6%	10.4%	11.8%	11.4%	11.4%	11.7%	4.7%	-2.6%
Oklahoma	0.7%	6.0%	(9.6)%	10.1%	14.6%	16.3%	(9.9)%	33.3%	1.6%	7.6%	8.6%	10.3%	10.0%	9.2%	9.3%	16.4%	1.6%
Oregon	0.6%	2.0%	4.2%	9.3%	27.9%	6.5%	12.0%	4.7%	0.0%	9.8%	10.4%	10.5%	9.3%	6.2%	5.4%	2.3%	0.0%
Pennsylvania	12.8%	(3.5)%	0.2%	15.2%	10.0%	9.2%	3.0%	18.4%	(0.6)%	7.6%	8.7%	9.1%	8.2%	7.9%	7.8%	8.5%	-0.6%
Rhode Island	(0.8)%	8.5%	3.5%	10.4%	15.3%	4.7%	6.4%	14.2%	(4.3)%	8.1%	8.1%	8.1%	7.4%	6.1%	6.0%	4.5%	-4.3%
South Carolina	(1.5)%	10.1%	(15.5)%	4.6%	16.8%	(2.1)%	21.0%	9.8%	27.3%	7.4%	8.7%	11.8%	13.0%	13.8%	18.2%	18.2%	27.3%
South Dakota	(17.7)%	27.1%	10.0%	(9.5)%	47.6%	(16.0)%	22.1%	(3.6)%	(4.1)%	7.3%	5.9%	5.5%	5.4%	0.6%	3.3%	-3.9%	-4.1%
Tennessee	8.0%	24.2%	(15.0)%	9.6%	27.7%	(9.5)%	11.4%	20.7%	2.4%	7.6%	7.5%	9.6%	9.0%	7.6%	12.2%	11.2%	2.4%
Texas	49.2%	46.0%	(50.0)%	35.7%	(1.2)%	18.9%	(1.3)%	32.4%	4.5%	5.2%	6.0%	12.7%	11.1%	13.2%	12.9%	17.6%	4.5%
Utah	6.4%	(4.2)%	22.8%	(3.4)%	17.5%	(1.4)%	13.7%	4.8%	1.2%	6.8%	7.1%	6.1%	6.7%	5.4%	6.3%	3.0%	1.2%
Vermont	3.1%	1.3%	2.6%	6.7%	8.2%	10.1%	17.3%	29.0%	(7.5)%	9.5%	10.8%	12.0%	12.9%	13.7%	13.5%	9.3%	-7.5%
Virginia	45.3%	(7.2)%	(2.5)%	2.9%	14.9%	(1.4)%	17.2%	14.5%	0.2%	5.9%	7.5%	8.7%	9.3%	9.0%	10.8%	7.1%	0.2%
Washington	5.7%	(2.8)%	4.0%	7.9%	15.0%	18.5%	21.3%	13.0%	(8.9)%	10.8%	12.3%	13.1%	13.1%	11.6%	8.2%	1.5%	-8.9%
West Virginia	32.2%	(9.9)%	4.3%	4.0%	13.5%	5.6%	11.9%	10.9%	5.1%	6.9%	8.4%	9.0%	9.4%	8.9%	9.4%	7.9%	5.1%
Wisconsin	8.4%	12.5%	1.7%	(6.3)%	16.7%	9.6%	32.5%	(1.9)%	5.9%	8.9%	9.4%	10.9%	12.7%	11.5%	9.9%	1.9%	5.9%
Wyoming	45.2%	(1.1)%	12.5%	2.3%	(0.3)%	(20.0)%	(1.8)%	29.9%	(5.2)%	0.3%	0.0%	-0.9%	-0.4%	1.8%	8.6%	11.0%	-5.2%
(A) Total x MI	21.5%	9.0%	(9.5)%	2.1%	12.2%	10.7%	13.9%	14.8%	3.6%	7.4%	8.4%	10.6%	11.6%	11.4%	11.1%	9.0%	3.6%
(B) Regional Total	6.9%	11.9%	(8.1)%	8.4%	15.3%	1.9%	21.4%	13.8%	0.4%	8.4%	9.1%	10.9%	11.0%	10.7%	11.7%	6.9%	0.4%
(C) Mandatory PIP No-Fault States x MI	8.5%	9.0%	(0.3)%	2.8%	16.0%	19.6%	18.6%	1.8%	9.3%	10.3%	11.0%	12.4%	13.0%	11.6%	8.8%	5.5%	9.3%
(D) Selected Year-Over-Year Change	6.0%	6.0%	6.0%	6.0%	15.0%	15.0%	15.0%	15.0%	(6.7)%								

Notes:
(1) thru (18) FastTrack industry data evaluated as of 12/31/24
(B) Regional Total is comprised of the following states: Illinois, Indiana, Ohio, and Wisconsin.
(C) PIP No-Fault States x MI is comprised of the following states: Delaware, Florida, Hawaii, Kansas, Kentucky, Massachusetts, Minnesota, New Jersey, New York, North Dakota, Pennsylvania, and Utah.

Michigan Private Passenger Auto Insurance Study
Michigan P&C Industry Data

Indicated Inflation Trend based on Components of the Consumer Price Index, U.S. City Average, For Urban Wage Earners
Medical-Related Consumer Price Index (CPI) Components

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
	Medical-Related CPI Component														
Year	All Items	Hospital and Related Services	Physicians' Services	Nursing Homes & Adult Day Services	Care of Invalids & Elderly at Home	Hospital Services	Services by Other Medical Professionals	Owners' Equivalent Rent of Primary Residence	New Trucks	Eyeglasses & Eye Care	Prescription Drugs	Transportation Services	Legal Services	Rent of Shelter	Medical Care
2015	236.5	772.6	370.3	208.4	119.3	294.4	228.3	290.1	155.5	184.3	481.1	294.1	327.9	294.1	451.1
2016	241.4	805.6	384.5	215.6	121.1	307.5	233.3	300.5	156.5	186.8	511.2	302.4	341.4	304.9	469.4
2017	246.5	843.7	377.7	222.1	119.3	323.1	238.1	310.0	156.4	188.0	525.4	313.6	345.9	314.7	477.8
2018	251.2	874.4	379.9	230.5	122.3	335.0	238.3	320.1	155.3	190.6	522.1	322.3	367.9	324.9	487.4
2019	257.0	900.0	385.1	237.0	124.6	344.9	240.1	330.6	155.8	192.2	537.9	324.2	364.4	335.5	509.7
2020	260.5	928.0	391.8	243.9	133.9	355.2	243.3	337.7	158.9	192.9	525.2	313.0	369.1	341.8	518.8
2021	278.8	958.3	408.6	252.2	137.7	366.9	250.3	350.5	177.3	196.3	525.3	326.1	382.4	356.1	530.0
2022	296.8	1002.1	415.6	264.0	146.1	383.2	255.5	377.0	188.1	199.6	534.9	373.6	399.2	383.1	551.0
2023	306.7	1057.9	412.9	276.9	155.9	404.4	259.2	400.9	190.2	204.4	552.6	409.7	428.4	406.8	553.5
2024	315.6	1100.1	423.9	291.0	170.8	418.5	263.9	420.1	189.6	213.1	558.7	439.5	446.3	425.5	569.2

	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)
	(1) / (1) Prior	(2) / (2) Prior	(3) / (3) Prior	(4) / (4) Prior	(5) / (5) Prior	(6) / (6) Prior	(7) / (7) Prior	(8) / (8) Prior	(9) / (9) Prior	(10) / (10) Prior	(11) / (11) Prior	(12) / (12) Prior	(13) / (13) Prior	(14) / (14) Prior	(15) / (15) Prior	
Year	Year-Over-Year Change															**Selected**
2016	2.1%	4.3%	3.8%	3.4%	1.5%	4.4%	2.2%	3.6%	0.6%	1.4%	6.2%	2.8%	4.1%	3.7%	4.1%	**3.5%**
2017	2.1%	4.7%	(1.8)%	3.0%	(1.5)%	5.1%	2.1%	3.2%	(0.1)%	0.6%	2.8%	3.7%	1.3%	3.2%	1.8%	**3.5%**
2018	1.9%	3.6%	0.6%	3.8%	2.5%	3.7%	0.1%	3.2%	(0.7)%	1.4%	(0.6)%	2.8%	6.4%	3.2%	2.0%	**3.5%**
2019	2.3%	2.9%	1.4%	2.8%	1.9%	3.0%	0.8%	3.3%	0.3%	0.8%	3.0%	0.6%	(0.9)%	3.3%	4.6%	**3.5%**
2020	1.4%	3.1%	1.7%	2.9%	7.4%	3.0%	1.3%	2.2%	1.9%	0.4%	(2.4)%	(3.5)%	1.3%	1.9%	1.8%	**3.5%**
2021	7.0%	3.3%	4.3%	3.4%	2.9%	3.3%	2.9%	3.8%	11.6%	1.8%	0.0%	4.2%	3.6%	4.2%	2.2%	**4.5%**
2022	6.5%	4.6%	1.7%	4.7%	6.1%	4.4%	2.1%	7.5%	6.0%	1.7%	1.8%	14.6%	4.4%	7.6%	4.0%	**4.5%**
2023	3.4%	5.6%	(0.6)%	4.9%	6.7%	5.5%	1.4%	6.3%	1.1%	2.4%	3.3%	9.7%	7.3%	6.2%	0.5%	**4.0%**
2024	2.9%	4.0%	2.6%	5.1%	9.5%	3.5%	1.8%	4.8%	(0.3)%	4.3%	1.1%	7.3%	4.2%	4.6%	2.8%	**3.5%**

	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)	(41)	(42)	(43)	(44)	(45)	(46)
	Exponential Annual Severity Trend														
1-Year	2.9%	4.0%	2.6%	5.1%	9.5%	3.5%	1.8%	4.8%	(0.3)%	4.3%	1.1%	7.3%	4.2%	4.6%	2.8%
2-Year	3.1%	4.8%	1.0%	5.0%	8.1%	4.5%	1.6%	5.6%	0.4%	3.3%	2.2%	8.5%	5.7%	5.4%	1.6%
3-Year	4.1%	4.8%	1.0%	4.9%	7.4%	4.6%	1.7%	6.2%	2.1%	2.7%	2.2%	10.4%	5.5%	6.1%	2.2%
4-Year	4.9%	4.5%	1.7%	4.6%	6.3%	4.3%	2.0%	5.9%	4.3%	2.4%	1.8%	9.5%	5.1%	5.9%	2.3%
5-Year	4.6%	4.2%	1.9%	4.2%	6.2%	4.1%	2.0%	5.2%	4.6%	2.0%	1.0%	7.3%	4.4%	5.2%	2.3%
6-Year	4.3%	4.0%	1.9%	4.0%	5.6%	3.9%	1.8%	4.8%	4.2%	1.8%	1.0%	5.8%	3.6%	4.8%	2.5%
7-Year	3.9%	3.8%	1.8%	3.8%	5.2%	3.8%	1.6%	4.5%	3.7%	1.6%	0.8%	4.9%	3.5%	4.5%	2.6%
8-Year	3.6%	3.8%	1.5%	3.7%	4.5%	3.8%	1.6%	4.2%	3.2%	1.5%	0.9%	4.4%	3.3%	4.2%	2.5%
9-Year	3.4%	3.9%	1.5%	3.7%	4.0%	3.9%	1.6%	4.1%	2.8%	1.4%	1.2%	4.1%	3.2%	4.1%	2.6%

Notes:
(1) - (15) From the U.S. Bureau of Labor Statistics Consumer Price Index; reflects U.S. city averages for urban wage earners, not seasonally adjusted
(32) - (46) Based on (1) through (15), respectively

Michigan Private Passenger Auto Insurance Study
Michigan P&C Industry Data

Indicated Inflation Trend based on Components of the Consumer Price Index, U.S. City Average, For Urban Wage Earners
Physical Damage-Related Consumer Price Index (CPI) Components

	(1)	(2)	(3)	(4)	(5)	(6)
	Physical Damage-Related CPI Component					
Year	Motor Vehicle Maintenance & Repair	New Vehicles	New & Used Motor Vehicles	Used Cars & Trucks	Leased Cars & Trucks	Motor Vehicle Parts & Equipment
2015	273.0	146.8	99.7	142.5	85.6	144.2
2016	278.0	147.3	98.7	137.5	83.3	142.7
2017	283.1	146.5	98.3	136.1	86.6	142.0
2018	289.7	146.1	99.1	138.1	90.1	145.1
2019	299.6	146.2	98.5	137.1	85.2	147.8
2020	309.9	149.1	103.2	150.9	83.7	148.4
2021	324.7	166.7	124.9	207.2	82.0	165.1
2022	367.0	176.5	125.7	188.9	110.4	181.4
2023	392.9	178.3	126.0	186.4	116.6	179.2
2024	417.3	177.6	124.3	180.3	118.2	181.6

	(7) (1) / (1) Prior	(8) (2) / (2) Prior	(9) (3) / (3) Prior	(10) (4) / (4) Prior	(11) (5) / (5) Prior	(12) (6) / (6) Prior	(13)
Year	Year-Over-Year Change						**Selected**
2016	1.8%	0.3%	(1.0)%	(3.5)%	(2.8)%	(1.0)%	**0.0%**
2017	1.8%	(0.5)%	(0.3)%	(1.0)%	4.0%	(0.5)%	**0.0%**
2018	2.3%	(0.3)%	0.8%	1.4%	4.1%	2.2%	**2.0%**
2019	3.4%	0.1%	(0.7)%	(0.7)%	(5.4)%	1.8%	**2.5%**
2020	3.4%	2.0%	4.8%	10.0%	(1.8)%	0.4%	**2.5%**
2021	4.8%	11.8%	20.9%	37.3%	(2.0)%	11.3%	**10.0%**
2022	13.0%	5.9%	0.7%	(8.8)%	34.6%	9.9%	**10.0%**
2023	7.1%	1.0%	0.2%	(1.3)%	5.6%	(1.2)%	**5.0%**
2024	6.2%	(0.4)%	(1.3)%	(3.3)%	1.4%	1.3%	**4.0%**

	(14)	(15)	(16)	(17)	(18)	(19)
	Exponential Annual Severity Trend					
1-Year	6.2%	(0.4)%	(1.3)%	(3.3)%	1.4%	1.3%
2-Year	6.6%	0.3%	(0.5)%	(2.3)%	3.5%	0.0%
3-Year	8.6%	2.0%	(0.1)%	(4.2)%	12.2%	2.8%
4-Year	8.2%	4.3%	3.9%	2.5%	11.0%	5.0%
5-Year	7.4%	4.6%	5.2%	5.6%	8.7%	4.9%
6-Year	6.7%	4.2%	5.0%	6.0%	6.3%	4.6%
7-Year	6.0%	3.7%	4.6%	5.8%	5.2%	4.3%
8-Year	5.4%	3.1%	4.0%	5.2%	4.5%	3.8%
9-Year	4.9%	2.7%	3.5%	4.5%	3.8%	3.3%

Notes:
(1) - (6) From the U.S. Bureau of Labor Statistics Consumer Price Index; reflects U.S. city averages for urban wage earners, not seasonally adjusted
(14) - (19) Based on (1) through (6), respectively

Michigan Private Passenger Auto Insurance Study
Michigan P&C Industry Data

Development of COVID-19 Adjustment Factors
Bodily Injury

Year	(1) Selected COVID-19 Trend	(2) (2) Prior x [1 + (1)] Cumulative Change	(3) (2) / (2) 2024 Cumulative Change Rebased to 2024	(4) 1 / (3) Selected COVID-19 Adjustment Factor
2016	0.0%	1.000	1.112	0.899
2017	0.0%	1.000	1.112	0.899
2018	0.0%	1.000	1.112	0.899
2019	0.0%	1.000	1.112	0.899
2020	(15.0)%	0.850	0.945	1.058
2021	(8.0)%	0.782	0.869	1.150
2022	8.0%	0.845	0.939	1.065
2023	6.5%	0.899	1.000	1.000
2024	0.0%	0.899	1.000	1.000

Notes:
(1) From Appendix G, Exhibit 6

Michigan Private Passenger Auto Insurance Study
Michigan P&C Industry Data

Development of COVID-19 Adjustment Factors
Property Damage

Year	(1) Selected COVID-19 Trend	(2) (2) Prior x [1 + (1)] Cumulative Change	(3) (2) / (2) 2024 Cumulative Change Rebased to 2024	(4) 1 / (3) Selected COVID-19 Adjustment Factor
2016	0.0%	1.000	1.250	0.800
2017	0.0%	1.000	1.250	0.800
2018	0.0%	1.000	1.250	0.800
2019	0.0%	1.000	1.250	0.800
2020	(25.0)%	0.750	0.938	1.066
2021	(3.5)%	0.724	0.905	1.105
2022	10.5%	0.800	1.000	1.000
2023	0.0%	0.800	1.000	1.000
2024	0.0%	0.800	1.000	1.000

Notes:
(1) From Appendix G, Exhibit 7

Michigan Private Passenger Auto Insurance Study
Michigan P&C Industry Data

Development of COVID-19 Adjustment Factors
Personal Injury Protection

Year	(1) Selected COVID-19 Trend	(2) (2) Prior x [1 + (1)] Cumulative Change	(3) (2) / (2) 2024 Cumulative Change Rebased to 2024	(4) 1 / (3) Selected COVID-19 Adjustment Factor
2016	0.0%	1.000	1.196	0.836
2017	0.0%	1.000	1.196	0.836
2018	0.0%	1.000	1.196	0.836
2019	0.0%	1.000	1.196	0.836
2020	(21.0)%	0.790	0.945	1.058
2021	(2.0)%	0.774	0.926	1.080
2022	8.0%	0.836	1.000	1.000
2023	0.0%	0.836	1.000	1.000
2024	0.0%	0.836	1.000	1.000

Notes:
(1) From Appendix G, Exhibit 8

Michigan Private Passenger Auto Insurance Study
Michigan P&C Industry Data

Development of COVID-19 Adjustment Factors
Collision

Year	(1) Selected COVID-19 Trend	(2) (2) Prior x [1 + (1)] Cumulative Change	(3) (2) / (2) 2024 Cumulative Change Rebased to 2024	(4) 1 / (3) Selected COVID-19 Adjustment Factor
2016	0.0%	1.000	1.070	0.934
2017	0.0%	1.000	1.070	0.934
2018	0.0%	1.000	1.070	0.934
2019	0.0%	1.000	1.070	0.934
2020	(22.0)%	0.780	0.835	1.198
2021	13.0%	0.881	0.943	1.060
2022	6.0%	0.934	1.000	1.000
2023	0.0%	0.934	1.000	1.000
2024	0.0%	0.934	1.000	1.000

Notes:
(1) From Appendix G, Exhibit 9

Michigan Private Passenger Auto Insurance Study
Michigan P&C Industry Data

Development of COVID-19 Adjustment Factors
Comprehensive (Other than Collision)

Year	(1) Selected COVID-19 Trend	(2) (2) Prior x [1 + (1)] Cumulative Change	(3) (2) / (2) 2024 Cumulative Change Rebased to 2024	(4) 1 / (3) Selected COVID-19 Adjustment Factor
2016	0.0%	1.000	0.925	1.081
2017	0.0%	1.000	0.925	1.081
2018	0.0%	1.000	0.925	1.081
2019	0.0%	1.000	0.925	1.081
2020	(11.8)%	0.882	0.816	1.225
2021	7.5%	0.948	0.877	1.140
2022	8.2%	1.025	0.949	1.054
2023	5.4%	1.081	1.000	1.000
2024	0.0%	1.081	1.000	1.000

Notes:
(1) From Appendix G, Exhibit 10

Michigan Private Passenger Auto Insurance Study
Michigan P&C Industry Data

Selected COVID-19 Trend
Bodily Injury

	(1)	(2)	(3)	(4)	(5)
	Indicated COVID-19 Trend				
Year	Insurance Industry Method	Miles Driven per Vehicle Method	Miles Driven per Driver Method	Selected COLL COVID-19 Trend	Selected COVID-19 Trend
2016	(0.5)%	N/A	N/A	0.0%	0.0%
2017	(2.5)%	(1.2)%	(0.4)%	0.0%	0.0%
2018	(1.0)%	(2.3)%	(0.1)%	0.0%	0.0%
2019	0.5%	(1.2)%	0.2%	0.0%	0.0%
2020	(15.0)%	(11.7)%	(10.8)%	(22.0)%	(15.0)%
2021	(8.0)%	7.2%	6.0%	13.0%	(8.0)%
2022	8.0%	1.3%	0.8%	6.0%	8.0%
2023	6.5%	1.1%	0.5%	0.0%	6.5%
2024	3.5%	(0.5)%	0.0%	0.0%	0.0%

Notes:
(1) From Appendix G, Exhibit 11
(2), (3) From Appendix G, Exhibit 16

Michigan Private Passenger Auto Insurance Study
Michigan P&C Industry Data

Selected COVID-19 Trend
Property Damage

	(1)	(2)	(3)	(4)	(5)
	Indicated COVID-19 Trend				
Year	Insurance Industry Method	Miles Driven per Vehicle Method	Miles Driven per Driver Method	Selected COLL COVID-19 Trend	Selected COVID-19 Trend
2016	(0.5)%	N/A	N/A	0.0%	0.0%
2017	(2.0)%	(1.2)%	(0.4)%	0.0%	0.0%
2018	(3.0)%	(2.3)%	(0.1)%	0.0%	0.0%
2019	(4.5)%	(1.2)%	0.2%	0.0%	0.0%
2020	(25.0)%	(11.7)%	(10.8)%	(22.0)%	(25.0)%
2021	(3.5)%	7.2%	6.0%	13.0%	(3.5)%
2022	10.5%	1.3%	0.8%	6.0%	10.5%
2023	0.0%	1.1%	0.5%	0.0%	0.0%
2024	(1.5)%	(0.5)%	0.0%	0.0%	0.0%

Notes:
(1) From Appendix G, Exhibit 12
(2), (3) From Appendix G, Exhibit 16

Michigan Private Passenger Auto Insurance Study
Michigan P&C Industry Data

Selected COVID-19 Trend
Personal Injury Protection

	(1)	(2)	(3)	(4)	(5)
	Indicated COVID-19 Trend				
Year	Insurance Industry Method	Miles Driven per Vehicle Method	Miles Driven per Driver Method	Selected COLL COVID-19 Trend	Selected COVID-19 Trend
2016	(0.5)%	N/A	N/A	0.0%	0.0%
2017	(2.5)%	(1.2)%	(0.4)%	0.0%	0.0%
2018	2.5%	(2.3)%	(0.1)%	0.0%	0.0%
2019	(0.5)%	(1.2)%	0.2%	0.0%	0.0%
2020	(21.0)%	(11.7)%	(10.8)%	(22.0)%	(21.0)%
2021	(2.0)%	7.2%	6.0%	13.0%	(2.0)%
2022	8.0%	1.3%	0.8%	6.0%	8.0%
2023	(1.0)%	1.1%	0.5%	0.0%	0.0%
2024	(2.0)%	(0.5)%	0.0%	0.0%	0.0%

Notes:
(1) From Appendix G, Exhibit 13
(2), (3) From Appendix G, Exhibit 16

Michigan Private Passenger Auto Insurance Study
Michigan P&C Industry Data

Selected COVID-19 Trend
Collision

	(1)	(2)	(3)	(4)
		Indicated COVID-19 Trend		
Year	Insurance Industry Method	Miles Driven per Vehicle Method	Miles Driven per Driver Method	Selected COVID-19 Trend
2016	(1.4)%	N/A	N/A	0.0%
2017	(1.4)%	(1.2)%	(0.4)%	0.0%
2018	(1.4)%	(2.3)%	(0.1)%	0.0%
2019	(3.9)%	(1.2)%	0.2%	0.0%
2020	(22.0)%	(11.7)%	(10.8)%	(22.0)%
2021	13.0%	7.2%	6.0%	13.0%
2022	6.0%	1.3%	0.8%	6.0%
2023	0.0%	1.1%	0.5%	0.0%
2024	(4.4)%	(0.5)%	0.0%	0.0%

Notes:
(1) From Appendix G, Exhibit 14
(2), (3) From Appendix G, Exhibit 16

Michigan Private Passenger Auto Insurance Study
Michigan P&C Industry Data

Selected COVID-19 Trend
Comprehensive (Other than Collision)

	(1)	(2)	(3)	(4)	(5)
	Indicated COVID-19 Trend				
Year	Insurance Industry Method	Miles Driven per Vehicle Method	Miles Driven per Driver Method	Selected COLL COVID-19 Trend	Selected COVID-19 Trend
2016	(1.5)%	N/A	N/A	0.0%	0.0%
2017	(2.2)%	(1.2)%	(0.4)%	0.0%	0.0%
2018	5.8%	(2.3)%	(0.1)%	0.0%	0.0%
2019	3.1%	(1.2)%	0.2%	0.0%	0.0%
2020	(11.8)%	(11.7)%	(10.8)%	(22.0)%	(11.8)%
2021	7.5%	7.2%	6.0%	13.0%	7.5%
2022	8.2%	1.3%	0.8%	6.0%	8.2%
2023	5.4%	1.1%	0.5%	0.0%	5.4%
2024	(5.2)%	(0.5)%	0.0%	0.0%	0.0%

Notes:
(1) From Appendix G, Exhibit 15
(2), (3) From Appendix G, Exhibit 16

Michigan Private Passenger Auto Insurance Study
Michigan P&C Industry Data

Indicated COVID-19 Trend: Insurance Industry Method
Bodily Injury

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Change in Year-Over-Year Frequency								
State	2016	2017	2018	2019	2020	2021	2022	2023	2024
Alabama	3.9%	5.4%	(4.2)%	(1.3)%	(19.7)%	(1.9)%	4.2%	(1.6)%	8.4%
Alaska	(3.8)%	(1.2)%	(4.6)%	(4.6)%	(10.7)%	(13.1)%	9.6%	6.6%	(5.0)%
Arizona	(3.4)%	(1.8)%	(0.8)%	(3.2)%	(17.9)%	(13.4)%	6.5%	5.2%	3.9%
Arkansas	4.0%	(4.4)%	(5.8)%	(2.9)%	(13.2)%	(12.1)%	10.7%	(1.5)%	7.9%
California	0.7%	(2.3)%	1.3%	0.6%	(19.1)%	(16.6)%	10.6%	7.8%	9.5%
Colorado	(10.3)%	(4.1)%	0.1%	(1.6)%	(13.2)%	(15.7)%	5.1%	(2.0)%	11.4%
Connecticut	(7.1)%	(1.2)%	(2.0)%	3.8%	(13.6)%	(4.9)%	7.9%	7.3%	12.7%
D.C.	(1.2)%	3.1%	(6.4)%	(1.9)%	(22.7)%	(1.7)%	15.3%	1.9%	6.6%
Delaware	(6.6)%	7.5%	(6.4)%	1.0%	(14.6)%	(10.1)%	4.0%	4.2%	13.8%
Florida	3.0%	1.1%	2.8%	2.6%	(12.0)%	(6.4)%	8.0%	5.6%	(3.1)%
Georgia	5.1%	0.5%	0.4%	1.2%	(13.8)%	(4.9)%	12.7%	3.7%	1.1%
Hawaii	(8.5)%	2.4%	(6.4)%	0.2%	(8.1)%	(13.3)%	(1.0)%	8.5%	13.5%
Idaho	(0.5)%	(7.1)%	(6.0)%	(0.2)%	(22.8)%	(9.2)%	(0.1)%	3.2%	10.8%
Illinois	(3.4)%	(2.4)%	(6.5)%	4.7%	(20.7)%	(6.6)%	6.7%	12.1%	6.3%
Indiana	(3.7)%	(6.0)%	(2.3)%	0.6%	(16.3)%	(7.1)%	5.1%	3.7%	4.8%
Iowa	(2.6)%	(3.4)%	(0.8)%	2.2%	(22.2)%	(6.8)%	3.0%	(2.6)%	4.6%
Kansas	1.7%	(0.9)%	1.1%	0.1%	(10.4)%	(8.9)%	1.6%	1.8%	20.5%
Kentucky	13.8%	(1.9)%	0.4%	(4.5)%	(11.8)%	(11.2)%	2.2%	1.9%	4.4%
Louisiana	10.2%	(1.5)%	(6.6)%	2.3%	(12.8)%	(3.6)%	1.8%	(5.6)%	3.2%
Maine	(5.6)%	(9.7)%	2.4%	(5.3)%	(9.1)%	(15.2)%	2.3%	3.3%	13.5%
Maryland	0.6%	(3.8)%	(4.5)%	(1.2)%	(21.0)%	(9.5)%	14.7%	4.6%	4.7%
Massachusetts	3.7%	(4.1)%	1.1%	(10.2)%	(12.6)%	(14.1)%	13.8%	7.6%	0.7%
Michigan	6.2%	4.3%	(4.4)%	(4.4)%	(10.8)%	7.2%	0.9%	6.7%	10.5%
Minnesota	(12.3)%	(1.7)%	(4.5)%	0.3%	(13.9)%	(2.6)%	1.4%	(2.6)%	9.2%
Mississippi	(0.4)%	5.0%	(5.7)%	0.9%	(9.7)%	(8.3)%	4.7%	0.7%	3.6%
Missouri	(3.0)%	1.7%	(3.4)%	(3.2)%	(16.1)%	(9.9)%	2.7%	1.9%	5.1%
Montana	0.7%	(5.4)%	(4.6)%	(0.2)%	(14.5)%	(14.1)%	(4.4)%	(4.0)%	7.1%
Nebraska	0.3%	(2.3)%	(0.9)%	(7.2)%	(12.6)%	(6.7)%	(0.1)%	0.5%	10.5%
Nevada	0.8%	(1.2)%	(0.5)%	(6.2)%	(13.9)%	(9.4)%	14.1%	6.5%	12.9%
New Hampshire	(11.1)%	(2.4)%	(3.0)%	(0.8)%	(19.6)%	(13.7)%	7.2%	4.6%	11.9%
New Jersey	(10.5)%	(4.1)%	0.9%	5.2%	(13.3)%	(3.1)%	23.7%	15.5%	0.9%
New Mexico	(5.4)%	(7.3)%	(0.7)%	(3.5)%	(22.3)%	(15.2)%	2.1%	1.4%	12.7%
New York	(3.1)%	2.7%	8.5%	6.2%	(9.0)%	0.2%	23.8%	13.5%	7.3%
North Carolina	(0.6)%	(4.4)%	(2.3)%	(2.4)%	(15.6)%	(6.9)%	6.2%	0.9%	0.6%
North Dakota	(13.4)%	7.1%	6.7%	10.8%	(11.9)%	(6.0)%	7.9%	(5.7)%	14.8%
Ohio	3.0%	(7.4)%	(3.5)%	(6.1)%	(14.9)%	(13.2)%	3.2%	1.1%	3.3%
Oklahoma	(5.2)%	(2.0)%	(6.1)%	3.2%	(22.4)%	(7.1)%	6.1%	5.5%	3.8%
Oregon	(3.4)%	(2.8)%	(7.2)%	(5.4)%	(22.6)%	(21.5)%	4.9%	3.2%	2.6%
Pennsylvania	(1.1)%	(4.9)%	(5.0)%	(0.6)%	(14.4)%	(6.9)%	6.7%	6.4%	4.5%
Rhode Island	(0.1)%	2.5%	1.3%	(5.7)%	(19.5)%	(15.1)%	7.9%	7.5%	(10.6)%
South Carolina	6.9%	(2.4)%	(3.6)%	(4.4)%	(14.3)%	(3.5)%	9.0%	(2.9)%	0.0%
South Dakota	(6.7)%	(0.4)%	(1.5)%	(0.0)%	(17.5)%	(11.2)%	0.0%	(1.3)%	9.6%
Tennessee	10.0%	(2.7)%	(6.6)%	(6.3)%	(12.7)%	(14.6)%	10.9%	4.3%	2.3%
Texas	(0.8)%	(2.2)%	(2.6)%	(2.3)%	(13.8)%	(6.6)%	6.5%	10.2%	15.4%
Utah	(2.9)%	(1.5)%	0.1%	(1.0)%	(13.9)%	(15.5)%	3.5%	(0.1)%	13.9%
Vermont	(5.5)%	(13.5)%	1.9%	(1.4)%	(12.6)%	(10.9)%	2.0%	0.2%	6.3%
Virginia	(3.4)%	(3.4)%	(6.0)%	3.5%	(20.3)%	(9.1)%	10.5%	1.6%	5.2%
Washington	(3.5)%	(3.0)%	(1.2)%	(6.0)%	(22.0)%	(13.9)%	0.7%	5.1%	10.9%
West Virginia	(5.0)%	(9.4)%	(3.2)%	(6.7)%	(14.7)%	(5.1)%	0.3%	7.1%	(0.9)%
Wisconsin	(3.8)%	(3.8)%	(0.4)%	(3.0)%	(17.3)%	(12.6)%	(1.0)%	2.6%	4.6%
Wyoming	1.9%	(12.5)%	(1.6)%	0.2%	(19.8)%	(4.3)%	(6.2)%	5.5%	(0.1)%
(A) Total x MI	0.2%	(1.9)%	(1.4)%	(0.6)%	(16.1)%	(9.3)%	8.6%	5.0%	5.5%
(B) Regional Total	(1.2)%	(4.7)%	(4.1)%	(0.6)%	(17.9)%	(9.6)%	4.5%	6.0%	4.9%
(C) PIP No-Fault States x MI	0.3%	(0.2)%	1.6%	1.4%	(12.4)%	(6.3)%	11.8%	7.4%	2.4%
(D) COLL Year-Over-Year Change	(1.4)%	(1.4)%	(1.4)%	(3.9)%	(22.0)%	13.0%	6.0%	0.0%	(4.4)%
(E) Selected Year-Over-Year Change	(0.5)%	(2.5)%	(1.0)%	0.5%	(15.0)%	(8.0)%	8.0%	6.5%	3.5%

Notes:
(1) thru (10) FastTrack industry data evaluated as of 12/31/24
(B) Regional Total is comprised of the following states: Illinois, Indiana, Ohio, and Wisconsin.
(C) PIP No-Fault States x MI is comprised of the following states: Delaware, Florida, Hawaii, Kansas, Kentucky, Massachusetts, Minnesota, New Jersey, New York, North Dakota, Pennsylvania, and Utah.

Michigan Private Passenger Auto Insurance Study
Michigan P&C Industry Data

Indicated COVID-19 Trend: Insurance Industry Method
Property Damage

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Change in Year-Over-Year Frequency								
State	2016	2017	2018	2019	2020	2021	2022	2023	2024
Alabama	2.1%	(2.2)%	(3.0)%	(3.6)%	(23.6)%	(1.1)%	4.6%	(1.5)%	(1.2)%
Alaska	2.0%	10.2%	(9.5)%	(8.2)%	(11.1)%	(12.4)%	6.2%	(3.5)%	0.9%
Arizona	3.7%	(1.2)%	(4.8)%	(2.8)%	(23.4)%	(8.0)%	6.8%	0.5%	0.4%
Arkansas	2.3%	(3.2)%	(6.5)%	(3.7)%	(18.5)%	(0.2)%	5.6%	(0.8)%	0.8%
California	2.1%	0.1%	(4.8)%	(5.3)%	(28.1)%	(10.9)%	20.8%	4.3%	1.8%
Colorado	(2.3)%	(4.2)%	(3.5)%	(0.5)%	(25.6)%	(8.5)%	11.9%	(1.7)%	1.7%
Connecticut	(2.5)%	0.0%	(3.8)%	(3.2)%	(25.8)%	(1.1)%	12.7%	0.1%	(1.8)%
D.C.	3.9%	(0.6)%	(6.9)%	(3.9)%	(29.3)%	(4.2)%	16.6%	(2.6)%	(4.7)%
Delaware	1.2%	0.8%	(6.1)%	(2.7)%	(23.6)%	(4.8)%	12.3%	1.1%	(0.5)%
Florida	2.5%	(1.9)%	(3.3)%	(5.7)%	(24.1)%	(1.9)%	7.6%	(0.7)%	(5.9)%
Georgia	1.9%	(4.8)%	(4.7)%	(3.1)%	(22.4)%	(1.5)%	7.1%	(1.9)%	(2.6)%
Hawaii	0.8%	(3.3)%	(4.3)%	(3.2)%	(27.1)%	(8.0)%	7.9%	0.2%	3.0%
Idaho	3.2%	2.4%	(7.6)%	(4.8)%	(18.9)%	(1.7)%	7.6%	0.2%	2.3%
Illinois	(0.5)%	(3.5)%	(3.4)%	(3.6)%	(28.3)%	(2.4)%	11.9%	(0.5)%	0.8%
Indiana	(0.3)%	(3.4)%	(4.2)%	(5.5)%	(21.6)%	(1.8)%	8.5%	1.4%	(0.1)%
Iowa	(0.6)%	(3.6)%	(1.2)%	(2.6)%	(24.8)%	1.7%	3.9%	0.9%	(3.6)%
Kansas	(0.1)%	(4.5)%	(2.0)%	(3.6)%	(22.3)%	(0.9)%	6.9%	0.2%	0.5%
Kentucky	(4.5)%	(2.2)%	(0.4)%	(5.3)%	(20.2)%	(1.4)%	5.3%	(1.3)%	0.2%
Louisiana	2.9%	(1.8)%	(6.9)%	(4.7)%	(19.8)%	(3.5)%	5.3%	(4.7)%	(0.6)%
Maine	(5.0)%	2.1%	(1.0)%	(2.7)%	(24.2)%	(3.6)%	6.5%	(1.5)%	5.4%
Maryland	2.3%	(0.5)%	(4.1)%	(5.2)%	(30.1)%	(5.0)%	13.9%	1.2%	(2.3)%
Massachusetts	(1.2)%	1.3%	(4.9)%	0.2%	(24.6)%	(11.4)%	21.5%	(1.2)%	(4.6)%
Michigan	(2.9)%	(6.0)%	(6.6)%	(10.8)%	(19.8)%	(13.9)%	10.6%	(3.4)%	3.0%
Minnesota	(2.5)%	0.3%	0.6%	(3.9)%	(25.1)%	(7.7)%	13.2%	5.1%	(5.7)%
Mississippi	1.8%	(1.4)%	(4.7)%	(4.0)%	(18.9)%	(1.9)%	6.2%	(5.1)%	(1.6)%
Missouri	1.0%	(2.3)%	(5.1)%	(2.6)%	(22.3)%	(3.9)%	6.0%	(2.5)%	(2.0)%
Montana	(0.6)%	2.1%	(0.2)%	(5.5)%	(18.0)%	(6.0)%	4.9%	0.6%	(0.1)%
Nebraska	(0.5)%	(3.5)%	0.9%	(4.1)%	(22.1)%	(0.8)%	3.3%	2.5%	(1.5)%
Nevada	5.0%	1.7%	(3.8)%	(6.1)%	(23.0)%	(6.1)%	16.4%	2.0%	(0.1)%
New Hampshire	(4.9)%	(1.2)%	(2.1)%	(4.8)%	(25.1)%	(9.0)%	10.0%	(0.3)%	2.0%
New Jersey	0.2%	(0.9)%	(3.5)%	(2.0)%	(28.0)%	(6.7)%	20.1%	6.4%	(2.2)%
New Mexico	(1.0)%	(1.4)%	(2.0)%	(6.0)%	(24.5)%	(8.0)%	14.5%	1.8%	1.5%
New York	(2.1)%	(0.7)%	(2.3)%	(5.0)%	(25.8)%	(3.3)%	14.6%	(1.5)%	(1.9)%
North Carolina	2.0%	(1.8)%	(4.2)%	0.5%	(20.5)%	(6.4)%	6.7%	0.5%	(1.8)%
North Dakota	(5.2)%	3.6%	(3.7)%	(2.6)%	(21.5)%	(7.4)%	16.6%	1.0%	(10.1)%
Ohio	(1.8)%	(2.8)%	(2.5)%	(6.3)%	(23.8)%	(2.9)%	7.7%	(0.4)%	(0.3)%
Oklahoma	(2.6)%	(2.6)%	(4.2)%	(2.4)%	(18.5)%	(2.4)%	3.6%	(1.1)%	0.1%
Oregon	2.9%	(2.3)%	(7.5)%	(4.5)%	(25.7)%	(10.1)%	11.0%	4.5%	2.7%
Pennsylvania	(1.9)%	(2.6)%	(1.7)%	(3.8)%	(24.8)%	(1.9)%	8.0%	(0.1)%	(0.0)%
Rhode Island	(3.6)%	(1.3)%	(3.4)%	(2.4)%	(27.5)%	(0.5)%	9.0%	0.2%	3.7%
South Carolina	2.3%	(2.2)%	(4.9)%	(4.3)%	(19.8)%	(0.7)%	2.9%	(2.7)%	(1.4)%
South Dakota	(3.7)%	(2.5)%	(1.5)%	0.0%	(21.0)%	(2.2)%	0.5%	7.0%	(8.6)%
Tennessee	3.6%	(2.4)%	(2.6)%	(6.2)%	(20.3)%	(6.1)%	10.1%	(0.6)%	(1.2)%
Texas	1.5%	(3.4)%	(6.0)%	(4.0)%	(27.0)%	(3.3)%	10.5%	(0.6)%	0.8%
Utah	3.5%	(0.2)%	(6.9)%	(1.6)%	(21.6)%	(5.5)%	5.6%	4.0%	(3.0)%
Vermont	(7.3)%	1.6%	0.9%	(2.1)%	(27.7)%	(6.4)%	13.3%	(1.1)%	(0.5)%
Virginia	1.2%	(0.4)%	(3.7)%	(3.7)%	(27.9)%	(5.9)%	13.8%	0.1%	1.7%
Washington	3.6%	(1.7)%	(4.5)%	(7.2)%	(27.5)%	(8.4)%	14.2%	5.1%	1.3%
West Virginia	(0.3)%	(3.2)%	(3.3)%	(3.7)%	(21.3)%	(2.0)%	5.5%	(0.6)%	0.1%
Wisconsin	(0.9)%	(0.5)%	(4.0)%	(2.9)%	(24.3)%	(7.5)%	11.4%	0.9%	(1.7)%
Wyoming	(4.8)%	2.0%	(7.3)%	(1.6)%	(11.0)%	(5.1)%	1.3%	3.3%	(4.4)%
(A) Total x MI	0.8%	(1.6)%	(3.9)%	(4.1)%	(25.1)%	(4.9)%	11.3%	0.5%	(0.8)%
(B) Regional Total	(0.9)%	(2.9)%	(3.2)%	(4.6)%	(25.5)%	(3.0)%	9.9%	(0.1)%	0.0%
(C) PIP No-Fault States x MI	(0.4)%	(1.3)%	(2.6)%	(4.0)%	(24.8)%	(3.8)%	11.4%	0.5%	(3.0)%
(D) COLL Year-Over-Year Change	(1.4)%	(1.4)%	(1.4)%	(3.9)%	(22.0)%	13.0%	6.0%	0.0%	(4.4)%
(E) Selected Year-Over-Year Change	(0.5)%	(2.0)%	(3.0)%	(4.5)%	(25.0)%	(3.5)%	10.5%	0.0%	(1.5)%

Notes:
(1) thru (10) FastTrack industry data evaluated as of 12/31/24
(B) Regional Total is comprised of the following states: Illinois, Indiana, Ohio, and Wisconsin.
(C) PIP No-Fault States x MI is comprised of the following states: Delaware, Florida, Hawaii, Kansas, Kentucky, Massachusetts, Minnesota, New Jersey, New York, North Dakota, Pennsylvania, and Utah.

Michigan Private Passenger Auto Insurance Study
Michigan P&C Industry Data

Indicated COVID-19 Trend: Insurance Industry Method
Personal Injury Protection

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Change in Year-Over-Year Frequency								
State	2016	2017	2018	2019	2020	2021	2022	2023	2024
Alabama	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alaska	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Arizona	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Arkansas	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
California	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Colorado	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Connecticut	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
D.C.	10.8%	17.3%	(12.5)%	(15.8)%	(28.6)%	0.8%	10.4%	7.3%	18.5%
Delaware	8.5%	0.9%	(5.6)%	(3.4)%	(18.6)%	(4.8)%	2.8%	2.9%	(4.7)%
Florida	(4.5)%	(4.0)%	11.6%	3.3%	(17.9)%	3.5%	6.6%	(1.9)%	(6.9)%
Georgia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Hawaii	(0.8)%	(0.4)%	(5.4)%	0.9%	(27.1)%	(17.4)%	7.0%	1.1%	10.4%
Idaho	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Illinois	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Indiana	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Iowa	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Kansas	19.5%	(10.1)%	(3.9)%	2.3%	(22.4)%	(7.1)%	6.0%	(2.6)%	(2.4)%
Kentucky	4.9%	(1.1)%	0.7%	(5.2)%	(18.5)%	(6.5)%	5.3%	(1.9)%	0.2%
Louisiana	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Maine	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Maryland	4.9%	1.1%	(8.0)%	(3.4)%	(27.8)%	(7.5)%	11.7%	2.8%	(5.6)%
Massachusetts	0.8%	(1.7)%	(1.2)%	(4.8)%	(26.3)%	6.1%	1.5%	(5.2)%	(6.3)%
Michigan	(2.5)%	2.7%	(2.1)%	(3.5)%	(19.7)%	(15.5)%	2.4%	(1.3)%	3.0%
Minnesota	(2.5)%	1.9%	(4.0)%	1.7%	(30.1)%	(12.0)%	14.5%	(1.9)%	(5.6)%
Mississippi	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Missouri	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Montana	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nebraska	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nevada	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
New Hampshire	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
New Jersey	3.5%	(3.7)%	(3.8)%	(5.4)%	(20.6)%	(9.3)%	11.0%	13.2%	3.2%
New Mexico	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
New York	(0.8)%	(0.8)%	1.7%	(3.3)%	(21.2)%	(0.9)%	16.9%	(2.1)%	3.7%
North Carolina	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
North Dakota	(5.2)%	6.7%	(12.3)%	14.8%	(26.6)%	(3.4)%	10.2%	(8.8)%	(10.6)%
Ohio	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Oklahoma	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Oregon	3.3%	(3.3)%	(7.6)%	(2.4)%	(22.8)%	(16.2)%	11.3%	(1.8)%	1.6%
Pennsylvania	1.7%	(2.0)%	(4.1)%	(1.9)%	(22.1)%	(6.3)%	4.0%	0.3%	2.2%
Rhode Island	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
South Carolina	(1.8)%	2.3%	(4.8)%	(2.0)%	(19.7)%	(1.6)%	(2.3)%	(2.1)%	7.3%
South Dakota	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tennessee	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Texas	(2.2)%	1.0%	(4.4)%	(4.9)%	(18.1)%	(6.2)%	9.1%	1.8%	4.5%
Utah	2.4%	(4.1)%	(6.7)%	1.7%	(23.8)%	(2.1)%	(3.3)%	(3.9)%	(4.0)%
Vermont	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Virginia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Washington	(2.5)%	0.5%	(6.0)%	(6.0)%	(14.6)%	(17.9)%	16.4%	3.8%	6.6%
West Virginia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Wisconsin	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Wyoming	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
(A) Total x MI	(0.1)%	(1.7)%	0.1%	(1.5)%	(20.9)%	(3.8)%	8.2%	(0.4)%	(1.3)%
(B) Regional Total	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
(C) PIP No-Fault States x MI	(0.3)%	(2.4)%	2.4%	(0.5)%	(20.9)%	(1.8)%	7.8%	(0.9)%	(2.2)%
(D) COLL Year-Over-Year Change	(1.4)%	(1.4)%	(1.4)%	(3.9)%	(22.0)%	13.0%	6.0%	0.0%	(4.4)%
(E) Selected Year-Over-Year Change	(0.5)%	(2.5)%	2.5%	(0.5)%	(21.0)%	(2.0)%	8.0%	(1.0)%	(2.0)%

Notes:
(1) thru (10) FastTrack industry data evaluated as of 12/31/24
(B) Regional Total is comprised of the following states: Illinois, Indiana, Ohio, and Wisconsin.
(C) PIP No-Fault States x MI is comprised of the following states: Delaware, Florida, Hawaii, Kansas, Kentucky, Massachusetts, Minnesota, New Jersey, New York, North Dakota, Pennsylvania, and Utah.

Michigan Private Passenger Auto Insurance Study
Michigan P&C Industry Data

Indicated COVID-19 Trend: Insurance Industry Method
Collision

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Change in Year-Over-Year Frequency								
State	2016	2017	2018	2019	2020	2021	2022	2023	2024
Alabama	0.8%	(2.2)%	(1.3)%	(1.1)%	(14.5)%	7.9%	(0.5)%	(2.1)%	(4.9)%
Alaska	2.5%	7.6%	(6.5)%	(7.0)%	(6.2)%	(0.9)%	4.4%	0.4%	(5.7)%
Arizona	4.9%	(0.7)%	(2.7)%	0.4%	(18.8)%	9.2%	2.6%	(1.5)%	(7.1)%
Arkansas	(0.3)%	(3.1)%	(3.4)%	(2.6)%	(11.4)%	10.2%	(1.2)%	(1.7)%	(6.1)%
California	5.7%	1.2%	(3.4)%	(1.2)%	(25.0)%	11.4%	10.8%	3.5%	(7.7)%
Colorado	(1.9)%	(4.6)%	(1.8)%	4.8%	(20.2)%	4.5%	7.9%	1.2%	(5.8)%
Connecticut	(5.1)%	(0.5)%	(2.0)%	(3.2)%	(22.7)%	18.4%	6.5%	(6.1)%	(7.6)%
D.C.	6.4%	(2.1)%	(2.7)%	0.1%	(20.5)%	13.3%	7.3%	(3.3)%	(9.7)%
Delaware	(0.9)%	3.2%	0.2%	(2.2)%	(22.5)%	16.5%	1.3%	(0.7)%	(4.6)%
Florida	3.2%	0.1%	(3.1)%	(2.7)%	(20.2)%	14.4%	1.0%	(3.3)%	(8.9)%
Georgia	0.8%	(0.6)%	(2.2)%	(2.9)%	(17.3)%	10.5%	1.1%	(3.6)%	(8.1)%
Hawaii	2.0%	(1.2)%	(1.9)%	0.7%	(25.7)%	9.1%	4.0%	1.9%	(2.6)%
Idaho	4.4%	7.2%	(9.3)%	(2.0)%	(15.3)%	6.8%	4.6%	(0.0)%	(4.5)%
Illinois	0.1%	(3.8)%	1.7%	(1.4)%	(22.8)%	12.7%	4.5%	5.3%	(4.2)%
Indiana	(0.6)%	(2.6)%	1.4%	(4.2)%	(18.1)%	13.8%	2.2%	(1.2)%	(3.2)%
Iowa	0.6%	(3.3)%	3.2%	0.5%	(21.7)%	12.3%	(0.1)%	0.1%	(9.1)%
Kansas	1.1%	(3.9)%	0.8%	0.4%	(17.9)%	8.5%	1.6%	0.2%	(4.1)%
Kentucky	(4.1)%	(2.8)%	1.6%	(4.5)%	(16.4)%	12.8%	2.3%	(2.4)%	(4.5)%
Louisiana	1.6%	(2.5)%	(5.9)%	(4.2)%	(15.3)%	12.3%	(0.7)%	(3.8)%	(5.2)%
Maine	(8.1)%	4.4%	(0.8)%	(0.8)%	(20.6)%	8.3%	4.7%	(0.8)%	(2.7)%
Maryland	2.8%	(3.4)%	0.2%	(3.2)%	(26.2)%	10.6%	5.7%	(2.2)%	(5.5)%
Massachusetts	(8.0)%	0.8%	(1.6)%	(1.1)%	(28.3)%	16.2%	8.4%	(7.2)%	(11.3)%
Michigan	(1.4)%	(1.4)%	(1.4)%	(3.9)%	(21.1)%	6.7%	6.7%	(1.4)%	(4.8)%
Minnesota	(0.3)%	1.2%	6.1%	(0.7)%	(21.1)%	2.8%	9.4%	6.4%	(14.3)%
Mississippi	1.1%	(1.4)%	(2.7)%	(2.1)%	(12.1)%	11.1%	(3.9)%	(3.5)%	(6.5)%
Missouri	2.4%	(0.6)%	(1.0)%	0.8%	(18.8)%	9.4%	(0.1)%	(3.6)%	(4.6)%
Montana	(1.7)%	7.0%	(1.9)%	(0.4)%	(14.8)%	4.1%	1.9%	0.7%	(7.6)%
Nebraska	1.6%	(3.6)%	4.3%	0.9%	(23.8)%	10.6%	(2.2)%	3.8%	(7.7)%
Nevada	6.2%	3.0%	(4.4)%	(2.9)%	(21.3)%	13.5%	8.9%	3.9%	(8.3)%
New Hampshire	(5.9)%	0.6%	0.7%	(4.3)%	(22.6)%	7.6%	3.8%	(0.8)%	(6.3)%
New Jersey	(1.6)%	(0.5)%	0.6%	(1.9)%	(28.3)%	19.2%	9.5%	(0.2)%	(6.8)%
New Mexico	3.4%	2.4%	(1.8)%	0.7%	(19.9)%	8.2%	7.2%	0.3%	(3.0)%
New York	(4.0)%	(1.2)%	(1.0)%	(4.0)%	(24.1)%	16.2%	6.4%	(5.0)%	(6.1)%
North Carolina	4.0%	(1.5)%	(0.8)%	0.4%	(18.7)%	8.9%	2.6%	(1.3)%	(7.6)%
North Dakota	0.1%	8.4%	(7.4)%	3.6%	(18.0)%	(5.1)%	19.4%	0.5%	(16.4)%
Ohio	(3.2)%	(1.6)%	1.0%	(3.8)%	(17.8)%	10.8%	1.8%	(2.1)%	(4.1)%
Oklahoma	(4.2)%	(0.3)%	(4.2)%	2.1%	(13.7)%	10.5%	(2.0)%	(2.1)%	(3.6)%
Oregon	6.9%	2.0%	(6.8)%	(1.1)%	(19.6)%	7.3%	4.0%	3.7%	(5.2)%
Pennsylvania	(3.2)%	7.1%	4.0%	(1.2)%	(19.8)%	13.7%	3.1%	(1.1)%	0.1%
Rhode Island	(5.1)%	(1.3)%	(1.5)%	(3.2)%	(26.9)%	12.6%	9.3%	(3.1)%	(0.9)%
South Carolina	1.0%	(1.7)%	(3.3)%	(2.5)%	(16.3)%	9.1%	(0.1)%	(2.6)%	(6.7)%
South Dakota	(1.6)%	(1.2)%	0.9%	7.1%	(23.7)%	5.4%	(1.0)%	9.6%	(14.5)%
Tennessee	2.4%	(0.8)%	(0.0)%	(1.9)%	(16.7)%	9.9%	1.5%	(2.7)%	(7.2)%
Texas	2.7%	(1.1)%	(4.9)%	(2.0)%	(22.0)%	15.9%	2.4%	(3.5)%	(6.0)%
Utah	6.4%	0.7%	(7.0)%	3.0%	(18.8)%	6.3%	1.5%	4.3%	(10.4)%
Vermont	(11.3)%	4.1%	4.8%	(4.5)%	(21.5)%	8.8%	6.7%	0.6%	(5.5)%
Virginia	1.4%	(2.2)%	(0.7)%	(2.1)%	(23.7)%	10.3%	8.2%	(3.6)%	(6.0)%
Washington	7.0%	0.9%	(2.5)%	(4.0)%	(24.6)%	10.9%	12.2%	2.6%	(5.8)%
West Virginia	(4.6)%	(1.4)%	4.2%	(3.7)%	(16.2)%	7.7%	(0.2)%	(4.4)%	(1.0)%
Wisconsin	2.9%	(2.4)%	0.2%	0.4%	(22.4)%	6.7%	2.6%	2.9%	(7.1)%
Wyoming	(2.1)%	3.0%	(6.5)%	2.6%	(8.5)%	2.4%	(4.6)%	6.1%	(13.5)%
(A) Total x MI	1.2%	(0.2)%	(1.4)%	(1.7)%	(21.6)%	11.7%	4.6%	(0.7)%	(6.2)%
(B) Regional Total	(0.7)%	(2.8)%	1.4%	(2.3)%	(20.7)%	11.6%	3.0%	1.6%	(4.4)%
(C) PIP No-Fault States x MI	(1.4)%	1.1%	0.1%	(2.0)%	(22.3)%	13.8%	4.4%	(2.0)%	(6.3)%
(D) Selected Year-Over-Year Change	(1.4)%	(1.4)%	(1.4)%	(3.9)%	(22.0)%	13.0%	6.0%	0.0%	(4.4)%

Notes:
FastTrack industry data evaluated as of 12/31/24

(1) thru (10)
Regional Total is comprised of the following states: Illinois, Indiana, Ohio, and Wisconsin.

(B)
PIP No-Fault States x MI is comprised of the following states: Delaware, Florida, Hawaii, Kansas, Kentucky, Massachusetts, Minnesota, New Jersey, New York, North Dakota,

(C)
Pennsylvania, and Utah.

Michigan Private Passenger Auto Insurance Study
Michigan P&C Industry Data

Indicated COVID-19 Trend: Insurance Industry Method
Comprehensive (Other than Collision)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Change in Year-Over-Year Frequency								
State	2016	2017	2018	2019	2020	2021	2022	2023	2024
Alabama	(0.6)%	6.4%	4.0%	(4.0)%	(1.4)%	7.4%	(2.8)%	3.2%	(2.3)%
Alaska	3.3%	(6.5)%	(0.7)%	(4.6)%	(18.3)%	6.2%	4.3%	(1.8)%	8.0%
Arizona	0.8%	(3.6)%	(6.5)%	15.7%	(11.5)%	(5.2)%	1.7%	3.4%	(11.9)%
Arkansas	4.6%	(17.3)%	7.2%	(10.4)%	(0.7)%	1.1%	42.9%	(1.1)%	(11.4)%
California	3.0%	8.7%	(6.6)%	9.9%	(10.0)%	12.7%	8.3%	8.6%	(12.5)%
Colorado	12.6%	2.9%	15.8%	(22.9)%	(24.9)%	4.1%	4.2%	35.7%	(9.8)%
Connecticut	(6.8)%	(0.5)%	7.3%	(1.7)%	(12.0)%	5.7%	3.6%	(1.2)%	(2.6)%
D.C.	(1.9)%	(9.3)%	4.8%	3.0%	(1.0)%	11.1%	8.2%	21.7%	(15.3)%
Delaware	(2.6)%	(5.5)%	11.3%	0.6%	(14.5)%	4.9%	3.6%	(0.4)%	1.4%
Florida	7.8%	10.2%	(0.9)%	(0.9)%	(7.1)%	8.1%	14.3%	(2.9)%	3.6%
Georgia	3.1%	(1.7)%	1.4%	(5.1)%	(6.9)%	6.6%	8.2%	7.7%	(3.1)%
Hawaii	4.9%	(4.9)%	1.4%	3.3%	1.4%	20.8%	0.8%	5.2%	(6.5)%
Idaho	5.0%	0.4%	(3.8)%	(9.0)%	(13.3)%	7.3%	(1.1)%	6.7%	6.2%
Illinois	(3.9)%	8.6%	(0.5)%	13.6%	(12.9)%	2.1%	12.0%	11.4%	(5.4)%
Indiana	(0.4)%	3.6%	(0.9)%	(0.7)%	(17.6)%	19.2%	(0.0)%	7.8%	(3.1)%
Iowa	(1.3)%	32.8%	(15.8)%	(3.2)%	20.4%	(18.7)%	9.4%	2.6%	(11.4)%
Kansas	17.2%	(3.6)%	(7.3)%	15.9%	(22.7)%	0.3%	2.1%	0.7%	19.7%
Kentucky	(9.0)%	(7.0)%	14.7%	(7.7)%	(11.6)%	19.0%	5.1%	2.8%	(9.6)%
Louisiana	24.8%	(19.8)%	1.5%	2.6%	1.7%	22.8%	(24.7)%	2.6%	5.7%
Maine	(10.2)%	6.7%	2.4%	1.2%	(7.0)%	(1.8)%	10.8%	1.6%	5.2%
Maryland	(3.6)%	(7.0)%	5.4%	(1.3)%	(15.0)%	13.0%	4.8%	5.4%	(4.2)%
Massachusetts	(15.2)%	(0.6)%	0.7%	(2.1)%	(14.7)%	1.2%	6.4%	(4.2)%	(3.8)%
Michigan	(1.5)%	(2.2)%	5.8%	3.1%	(11.8)%	7.5%	8.2%	5.4%	(5.2)%
Minnesota	(2.3)%	8.9%	(3.6)%	10.0%	(15.4)%	(0.7)%	26.5%	(5.2)%	(15.7)%
Mississippi	1.8%	(2.2)%	5.5%	0.1%	(1.9)%	0.9%	(2.0)%	7.6%	(6.1)%
Missouri	12.3%	0.7%	(16.8)%	8.1%	(3.4)%	(6.2)%	11.1%	13.0%	14.0%
Montana	30.5%	(27.4)%	9.4%	24.6%	(30.3)%	(2.0)%	12.6%	(6.8)%	2.2%
Nebraska	22.4%	25.6%	(34.2)%	31.1%	(41.4)%	(0.1)%	47.8%	(22.7)%	48.7%
Nevada	3.7%	(3.3)%	(16.1)%	(4.7)%	(13.7)%	7.7%	9.0%	16.3%	(9.2)%
New Hampshire	(5.8)%	7.4%	4.8%	(4.6)%	(9.5)%	6.0%	12.3%	0.9%	0.7%
New Jersey	1.8%	(0.0)%	14.1%	(1.3)%	(10.1)%	34.7%	(11.8)%	0.4%	(2.9)%
New Mexico	(6.5)%	4.9%	(14.8)%	5.9%	(18.4)%	8.8%	(1.5)%	14.6%	(2.6)%
New York	(10.1)%	1.7%	7.6%	(3.4)%	(11.4)%	11.6%	5.6%	(7.8)%	(3.4)%
North Carolina	6.7%	(8.4)%	8.4%	(0.8)%	(14.8)%	6.9%	5.2%	2.3%	0.1%
North Dakota	29.6%	(27.5)%	2.9%	21.9%	(25.1)%	11.9%	16.7%	(16.4)%	(3.3)%
Ohio	(7.9)%	(1.0)%	7.9%	2.5%	(14.9)%	6.7%	13.7%	0.4%	(5.6)%
Oklahoma	(18.9)%	(3.6)%	(13.5)%	20.2%	7.6%	10.4%	(13.3)%	46.5%	(15.1)%
Oregon	4.5%	17.2%	(12.4)%	(1.2)%	(8.0)%	16.8%	1.3%	(0.2)%	(5.3)%
Pennsylvania	(8.8)%	9.9%	12.6%	3.3%	(19.7)%	8.6%	6.5%	2.6%	0.7%
Rhode Island	(12.9)%	2.1%	4.6%	0.3%	(15.9)%	10.4%	15.5%	(4.7)%	5.1%
South Carolina	6.7%	(1.7)%	(4.2)%	(6.6)%	(7.3)%	2.7%	1.3%	(0.1)%	1.7%
South Dakota	(17.3)%	17.4%	3.4%	(10.1)%	8.4%	(23.1)%	9.7%	(9.7)%	(4.2)%
Tennessee	3.2%	4.4%	(3.2)%	(1.9)%	(4.3)%	12.3%	10.4%	3.3%	(1.2)%
Texas	30.0%	(17.4)%	(24.9)%	5.7%	(15.6)%	18.7%	(9.7)%	19.0%	(3.8)%
Utah	10.9%	(0.9)%	(14.0)%	(2.1)%	(4.9)%	3.6%	2.5%	8.6%	(3.7)%
Vermont	(7.6)%	6.5%	5.5%	1.6%	(13.5)%	(1.7)%	11.2%	5.7%	3.3%
Virginia	0.6%	(7.9)%	4.0%	(0.4)%	(14.7)%	12.7%	6.7%	(3.0)%	0.6%
Washington	(0.5)%	4.3%	(5.5)%	1.1%	(11.5)%	11.7%	14.6%	(0.4)%	(6.3)%
West Virginia	0.6%	(15.5)%	11.3%	(2.0)%	(15.6)%	7.4%	9.4%	(4.3)%	1.3%
Wisconsin	6.8%	3.4%	(2.3)%	(1.9)%	(12.8)%	9.8%	19.6%	(9.2)%	(2.1)%
Wyoming	39.4%	(11.9)%	7.6%	3.5%	(19.6)%	(12.1)%	(8.7)%	18.3%	(5.2)%
(A) Total x MI	3.7%	(0.5)%	(2.3)%	1.5%	(11.8)%	7.8%	5.3%	4.3%	(4.2)%
(B) Regional Total	(2.9)%	4.0%	1.5%	5.4%	(14.1)%	7.0%	11.8%	3.9%	(4.6)%
(C) PIP No-Fault States x MI	(2.4)%	4.3%	3.4%	0.6%	(12.5)%	9.2%	8.4%	(2.3)%	(2.2)%
(D) COLL Year-Over-Year Change	(1.4)%	(1.4)%	(1.4)%	(3.9)%	(22.0)%	13.0%	6.0%	0.0%	(4.4)%
(E) Selected Year-Over-Year Change	(1.5)%	(2.2)%	5.8%	3.1%	(11.8)%	7.5%	8.2%	5.4%	(5.2)%

Notes:
(1) thru (10) FastTrack industry data evaluated as of 12/31/24
(B) Regional Total is comprised of the following states: Illinois, Indiana, Ohio, and Wisconsin.
(C) PIP No-Fault States x MI is comprised of the following states: Delaware, Florida, Hawaii, Kansas, Kentucky, Massachusetts, Minnesota, New Jersey, New York, North Dakota, Pennsylvania, and Utah.

Michigan Private Passenger Auto Insurance Study
Michigan P&C Industry Data

Indicated COVID-19 Trend: Average Miles Driven Method

	(1)	(2)	(3) (1) / (2)	(4)	(5) (1) / (4)	(6) (3) / (3) Prior	(7) (5) / (5) Prior
						Year-Over-Year Change	
Year	Vehicle Miles Driven (M)	Vehicle Count (M)	Miles Driven per Vehicle	Driver Count (M)	Miles Driven per Driver	Average Miles Driven per Vehicle	Average Miles Driven per Driver
2016	3,174,408	264.0	12,024	221.7	14,318	N/A	N/A
2017	3,212,347	270.4	11,880	225.3	14,255	(1.2)%	(0.4)%
2018	3,240,327	279.1	11,610	227.6	14,240	(2.3)%	(0.1)%
2019	3,261,772	284.5	11,465	228.7	14,263	(1.2)%	0.2%
2020	2,903,622	286.9	10,121	228.2	12,724	(11.7)%	(10.8)%
2021	3,140,088	289.5	10,847	232.8	13,489	7.2%	6.0%
2022	3,196,191	290.8	10,991	235.1	13,596	1.3%	0.8%
2023	3,246,817	292.3	11,108	237.7	13,662	1.1%	0.5%
2024	3,279,079	296.6	11,056	239.9	13,668	(0.5)%	0.0%

Notes:
(1) Data from page 2 of the Federal Highway Administration and U.S. Department of Transportation's published Traffic Volume Trends - December 2024 report.
(2), (4) Data from the U.S. Census Bureau, Federal Highway Administration, and U.S. Department of Transportation, with additional statistical analysis by Hedges & Company.