



# COVID-19's Impact on Motor Vehicle Accidents in Workers Compensation

## INTRODUCTION

This article explores how COVID-19 has disrupted seasonal traffic patterns countrywide and the resulting impacts on motor vehicle accidents (MVAs) in workers compensation (WC). This is a follow-up to a recent NCCI<sup>1</sup> article that found that MVAs continue to be a key driver of WC costs, with MVA lost-time claims continuing to cost over 80% more than the average lost-time claim.

COVID-19 continues to impact the economy and behaviors in both temporary and potentially systemic ways. Overall, MVA-related WC system costs in 2020 are projected to be reduced due to COVID-19 and therefore, potentially offset other COVID-19-related costs.

## KEY FINDINGS

- **Overall, COVID-19 will initially result in an expected decrease to WC MVA costs** as the number of WC MVAs declines, consistent with decreases in miles driven between March and June 2020.
- **Two historically consistent statistics** could be disrupted by the pandemic:
  - The number of WC MVA claims compared with miles driven, and
  - The number of WC MVA fatalities compared with all MVA fatalities
- **Monthly miles traveled and MVA fatalities** decreased significantly between March and May 2020 compared with seasonal mileage statistics. But an increase in MVA fatalities in June<sup>2</sup> may be driven by changes in driving dynamics.
- **There were more MVA fatalities per mile traveled** between March and June 2020, compared with seasonal mileage statistics. Miles traveled decreased more than MVA fatalities.

## DATA SOURCES

When analyzing the COVID-19 impact, we considered motor vehicle estimates from several sources:

- NCCI's *Statistical Plan for Workers Compensation and Employers Liability (Statistical Plan)*<sup>3</sup>
- National Highway Traffic Safety Administration (NHTSA)

<sup>1</sup> [https://www.ncci.com/Articles/Pages/Insights\\_MVA\\_WC-Update.aspx](https://www.ncci.com/Articles/Pages/Insights_MVA_WC-Update.aspx)

<sup>2</sup> June 2020 figures from the National Safety Council (NSC) as published on September 11, 2020

<sup>3</sup> Jurisdictions where NCCI is a licensed workers compensation rating or advisory organization: AL, AK, AZ, AR, CO, CT, DC, FL, GA, HI, ID, IL, IN, IA, KS, KY, LA, ME, MD, MS, MO, MT, NE, NV, NH, NM, NC, OK, OR, RI, SC, SD, TN, TX, UT, VT, VA, and WV

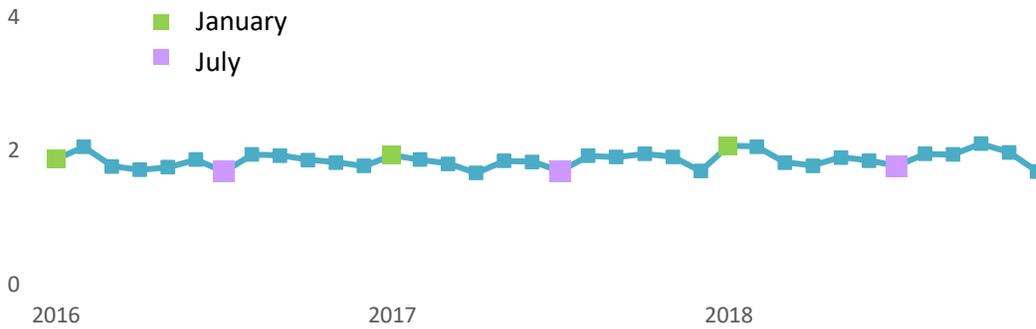
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- National Safety Council (NSC)
- US Department of Transportation Federal Highway Administration Office of Highway Policy Information (FHWA)
- Centers for Disease Control and Prevention, National Center for Health Statistics.

NCCI’s **Statistical Plan** contains data from 38 jurisdictions. The ratio of WC MVAs in these jurisdictions to mileage for all 50 states and Washington, DC using national motor vehicle statistics has been stable over time<sup>4,5</sup>. Figure 1 indicates the ratio of MVA claims reported to NCCI to total miles has been approximately two claims per 100 million miles driven:

### WC MVA Claim Counts to Mileage (in 100 Millions)



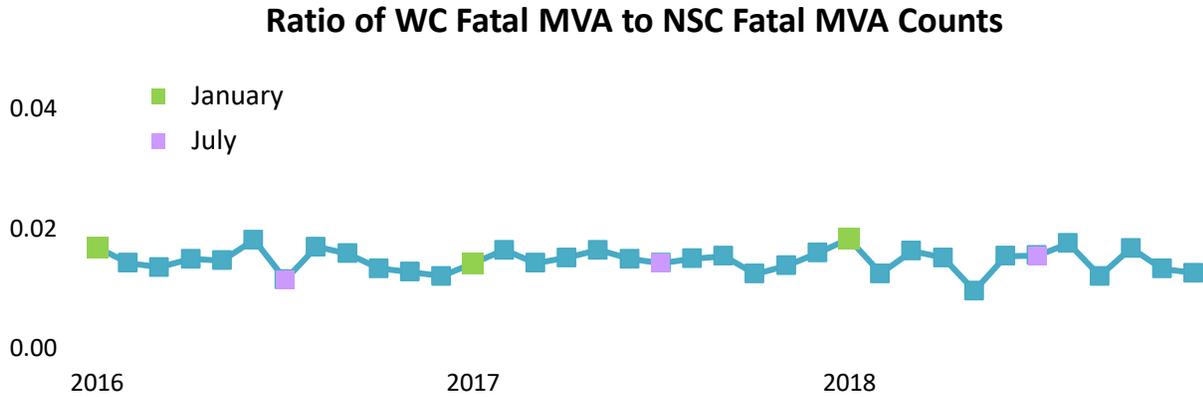
Mileage Source: Traffic Volume Trends, US Department of Transportation, Federal Highway Administration's Office of Highway Policy Information  
 WC Claims: NCCI's **Statistical Plan**

**Figure 1**

<sup>4</sup> Data from NCCI’s **Statistical Plan** is first evaluated 18 months from the policy effective date and is not available until 20 months from the policy effective date

<sup>5</sup> External data is not available by state for all sources; for consistency, we compare NCCI data to statistics for all 50 states and Washington, DC.

Figure 2 indicates the ratio of WC MVA fatalities reported to NCCI to overall MVA fatalities in NSC data has been approximately 1-2% over the same time period:



Source: Preliminary death estimates and death rate calculations: National Safety Council  
 WC Claims: NCCI's *Statistical Plan*

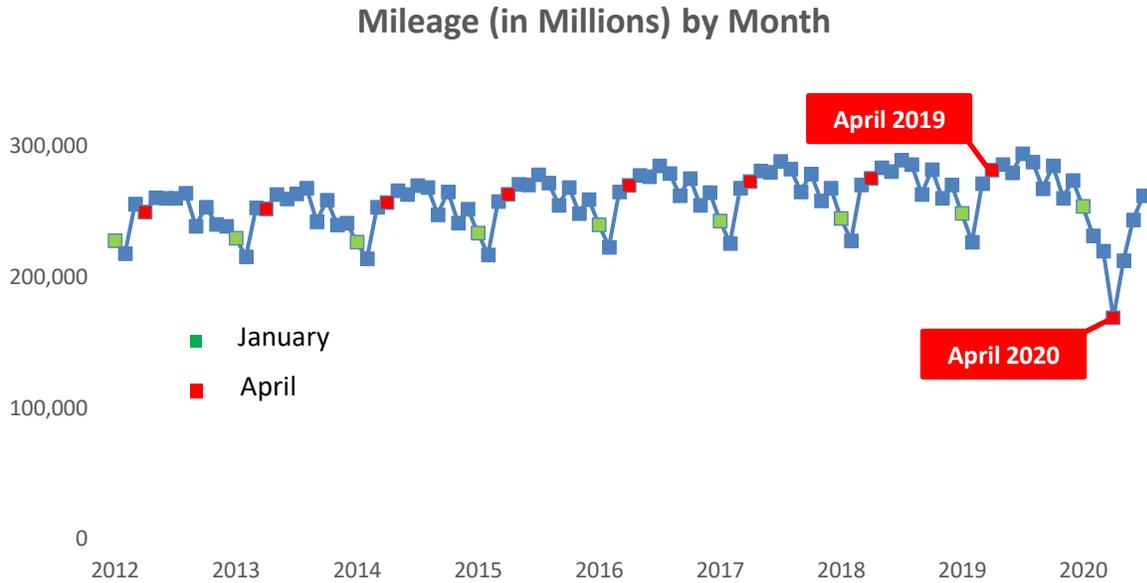
**Figure 2**

This suggests a relationship between WC MVA claim counts in NCCI jurisdictions and FHWA miles driven, as well as a relationship between WC MVA fatalities in NCCI jurisdictions and all MVA fatalities on a monthly basis.

Although data from NCCI contains data from 38 jurisdictions, whereas the data from FHWA and NSC contain data from 50 states and Washington, DC, the stability in the relationships shown above indicate that FHWA and NSC data make a reasonable proxy to help understand the impact of WC MVAs across the NCCI jurisdictions.

**SEASONALITY OF AUTO**

Trends in mileage have historically exhibited seasonal patterns over a calendar year. Mileage decreases during the winter and peaks during spring and summer months, as shown in Figure 3.



Source: Traffic Volume Trends, US Department of Transportation, Federal Highway Administration's Office of Highway Policy Information

**Figure 3**

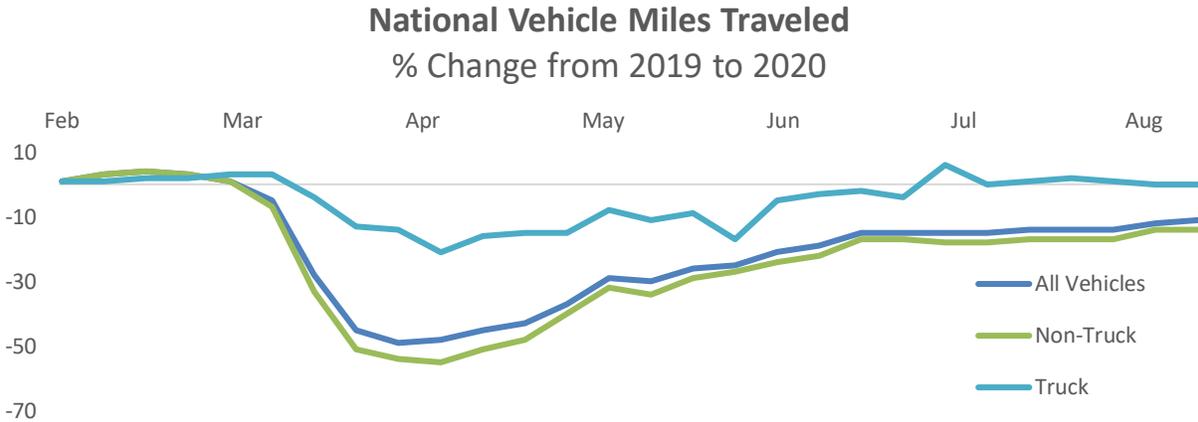
The disruptive impact of COVID-19 is clearly visible beginning in March 2020, coinciding with national emergency declarations. At the end of March, approximately 95% of the United States was under lock-down, with 42 states having issued shelter-in-place orders.<sup>6</sup>

Compared with the corresponding 2019 figures, decreases in miles driven ranged from 20 to 40% from March to May 2020. This decline continued as miles driven in June 2020 were approximately 15% below the corresponding figure for June 2019.

<sup>6</sup> <https://www.businessinsider.com/us-map-stay-at-home-orders-lockdowns-2020-3>

**NON-TRUCKING VS. TRUCKING**

Summary level data indicates mileage trends may differ between non-trucking and trucking driving exposure. While mileage for non-trucking and trucking have both decreased, trucking-related mileage indicates less of a decline,<sup>7</sup> and more recent months indicate a return to historical levels, as shown in Figure 4.



Source: FHWA Weekly Traffic Volume Report, Interstate Travel for Week No. 33

**Figure 4**

Class Code 7219, the trucking classification, has historically accounted for more than 10-15% of WC MVAs per accident year<sup>8</sup>. During the pandemic, trucking mileage declined less than private passenger auto mileage. This could imply that there may not have been any significant changes in WC MVAs for Class Code 7219 and other trucking-related class codes. Moreover, research conducted by NHTSA<sup>9</sup> shows that private passenger autos are often at fault in MVA fatalities between trucks and private passenger autos. Due to fewer private passenger autos on the road during the pandemic, this could result in fewer WC MVAs for trucking.

**CHANGES IN THE WORKPLACE**

COVID-19 has altered the labor force with record unemployment claims. As of August 2020, more than 10 million fewer people are employed compared with August 2019<sup>10</sup>. The nature of employment has also changed, with nearly 25% of employees working from home<sup>11</sup>.

What could this mean for WC MVAs? Technology has allowed many workers to perform their jobs while working remotely. This transition could lead to a permanent decline in mileage for a portion of the workforce. Historically, workers in the office and clerical related classifications (i.e., industry group) have accounted for more than 10% of WC MVAs. To the extent workers in this industry segment continue to work remotely, it is reasonable to believe this may exert downward pressure on the number of work-related MVAs.

Changes in the workplace may be expected to contribute to:

- Reduced work-related driving exposure

<sup>7</sup> [https://www.fhwa.dot.gov/policyinformation/weeklyreports/interstate\\_travel\\_week\\_32.pdf](https://www.fhwa.dot.gov/policyinformation/weeklyreports/interstate_travel_week_32.pdf)

<sup>8</sup> [https://www.ncci.com/Articles/Pages/Insights\\_MVA\\_WC-Update.aspx](https://www.ncci.com/Articles/Pages/Insights_MVA_WC-Update.aspx)

<sup>9</sup> <https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/809569>

<sup>10</sup> <https://www.bls.gov/news.release/empsit.t01.htm>

<sup>11</sup> <https://www.bls.gov/news.release/pdf/empsit.pdf>

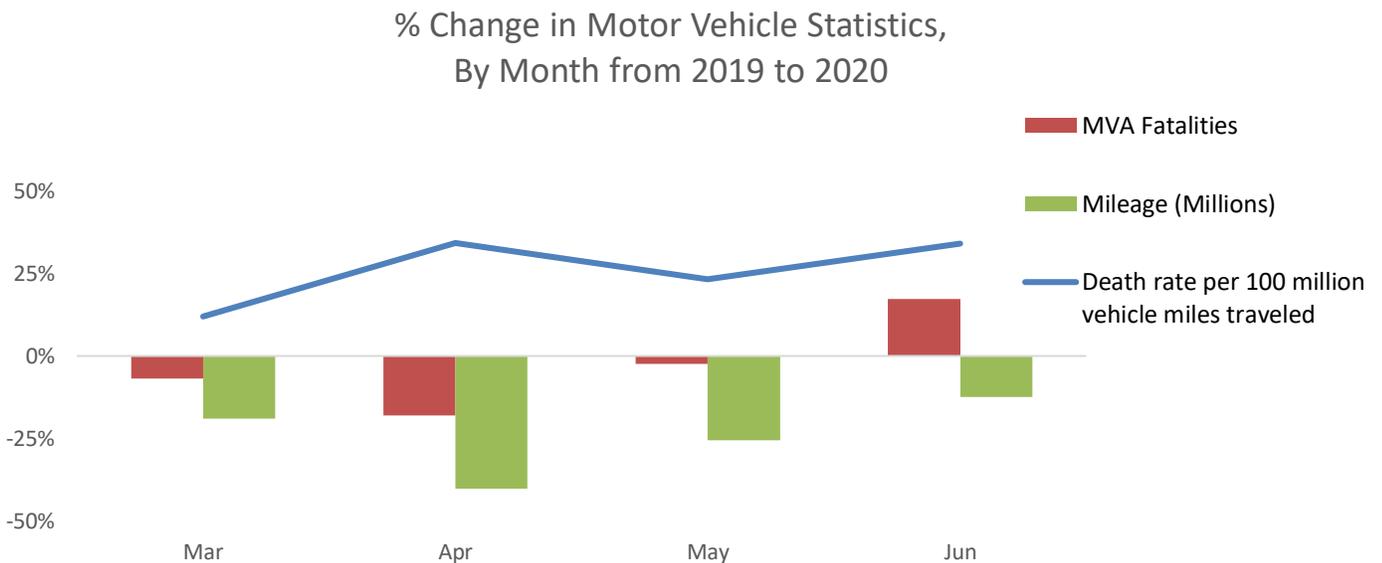
- Reduced business travel
- Increased telecommuting
- A marked decline in demand for busing and taxicabs

These changes were also noted in NCCI’s recent WC MVA update.

**DRIVING DYNAMICS**

Although states implemented different shelter-in-place requirements at varying times, national mileage trends indicate decreases in MVA fatalities and the number of miles driven for the time period between March and May 2020—when most of the shelter-in-place orders were in effect.

As states have relaxed shelter-in-place orders, the reopening economy faces a global recession.<sup>12</sup> Historically, recessions have resulted in small declines in both mileage and MVA fatality rates.<sup>13</sup> While the current recession is accompanied by a decrease in mileage, the decrease largely reflects shelter-in-place directives for March through May. And unlike historical recessions, the data indicates an increase in MVA fatality rates, as shown in Figure 5:



Source: Traffic Volume Trends, US Department of Transportation, Federal Highway Administration's Office of Highway Policy Information. Preliminary death estimates and death rate calculations: National Safety Council

**Figure 5**

While both MVA fatalities and mileage decreased between March and May 2020 compared with the same time period in 2019, the decrease in mileage exceeded the decrease in MVA fatalities. Consequently, the death rate per 100 million vehicle miles traveled increased.

As states began to reopen, the mileage decline for June 2020 was less than the decline for May 2020. A notable increase in MVA fatalities for June paired with a decrease in mileage results in a higher rate of MVA fatalities per mile in that month.<sup>14</sup> This departure from the data observed between March and May 2020 may be partially explained by seasonal trends: summer months typically correspond to more miles driven and MVA fatalities.

<sup>12</sup> <https://www.nber.org/cycles/june2020.html>

<sup>13</sup> <https://injuryfacts.nsc.org/motor-vehicle/overview/impact-of-recessions/>

<sup>14</sup> This trend continues in July 2020 based on data from NSC.

An increase in driving speeds may be another explanation for the higher rate of MVA fatalities for June 2020. The Governors Highway Safety Association<sup>15</sup> reports an increase in driving speeds during the first few months of the pandemic, citing various accounts of an increase in the number of recorded speeding tickets. According to NHTSA<sup>16</sup>, “For more than two decades, speeding has been involved in approximately one-third of all motor vehicle fatalities.”

Because increased driving speeds are highly correlated with fatality rates, this could, to some extent, offset the expected decline in MVA fatalities due to the decrease in miles driven.

## SUMMARY

COVID-19 continues to impact the economy and behaviors in both temporary and potentially systemic ways. The immediate impact of the pandemic has been a decrease in miles driven and MVA fatalities. Overall, MVA-related WC system costs in 2020 are projected to be reduced due to COVID-19 and therefore, potentially offset other COVID-19-related costs.

The long-term impact on WC MVAs will depend on many variables, including:

- The shift in the prevalence of workforce telecommuting
- More services provided online (e.g., telehealth)
- Utilization of public transportation
- Trucking versus non-trucking commercial vehicle activity
- Pandemic-related driving behaviors

You can also find more WC COVID-19-related information in the [NCCI COVID-19 Resource Center](#).

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<sup>15</sup> <https://www.ghsa.org/resources/news-releases/coronavirus-reckless-driving20>

<sup>16</sup> <https://www.nhtsa.gov/risky-driving/speeding#issue-dangers-speeding>