



How COVID-19 Pandemic Impacts on Driving Behavior Will Impact Future Loss Projections

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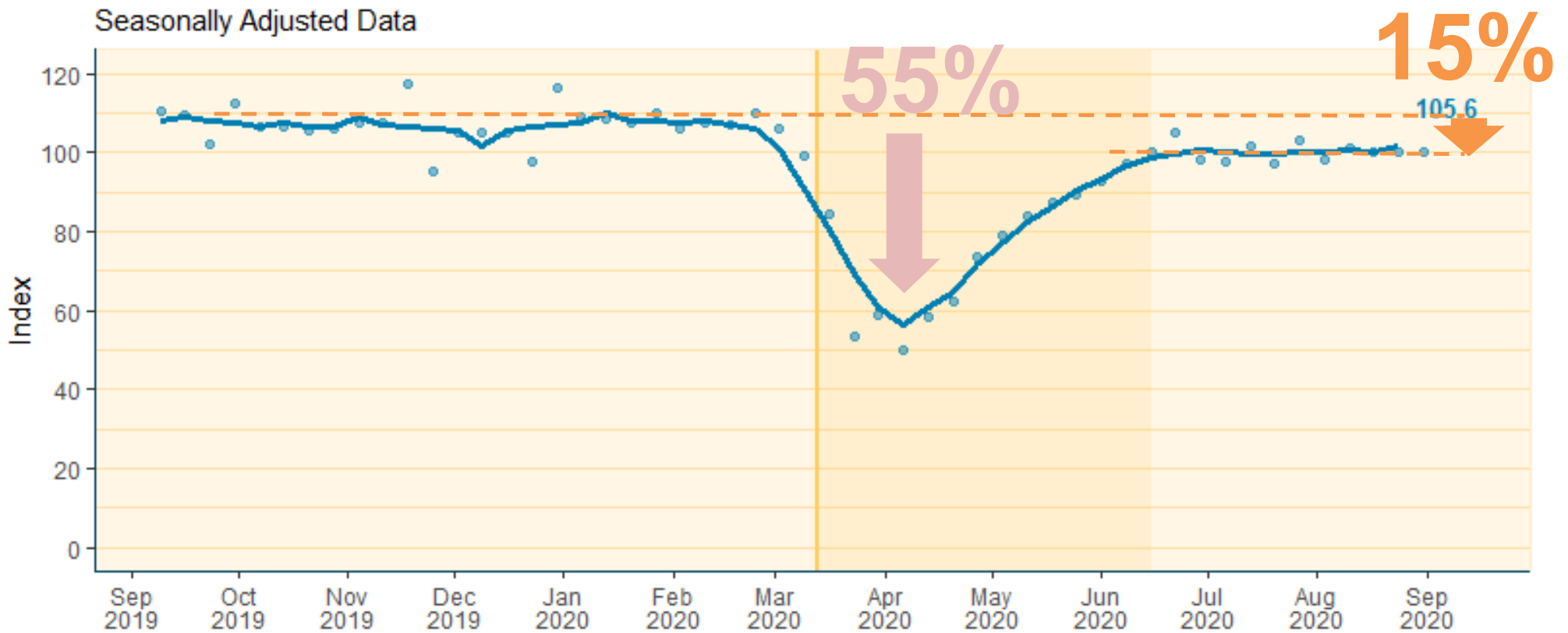
Michael Chen, FCAS, CSPA, MAAA
Consulting Actuary

The Impact of COVID-19 on Future Loss Projections

- Impact of COVID-19 on miles driven
- Impact of COVID-19 on insured losses
- Implications on future loss projections

Impact of COVID-19 on Miles Driven

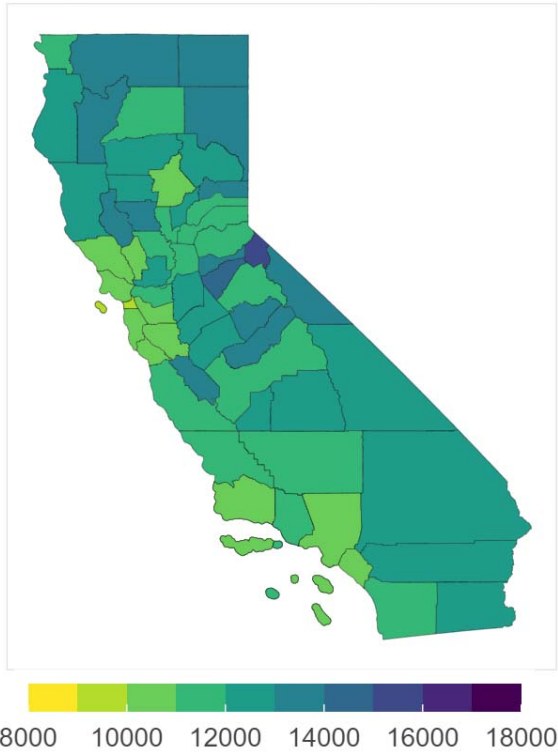
Carfax Vehicle Usage Index



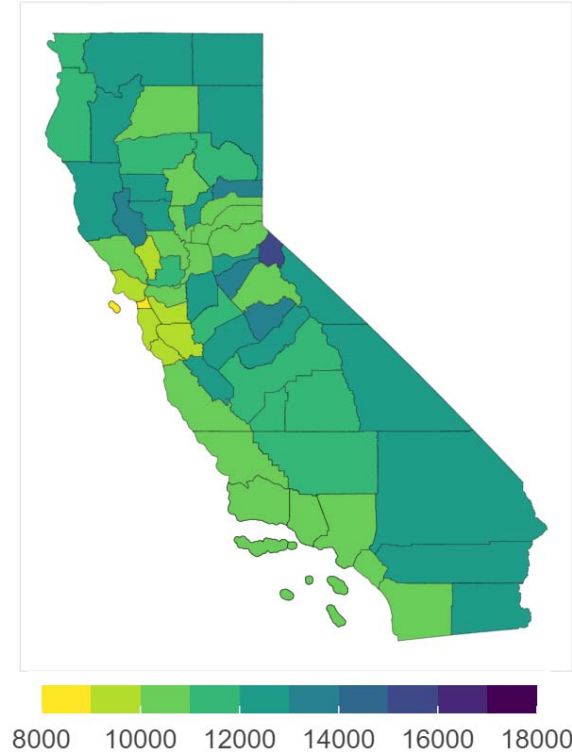
Source : CARFAX

CARFAX Recent Annual Mileage

Avg RAM January 2020

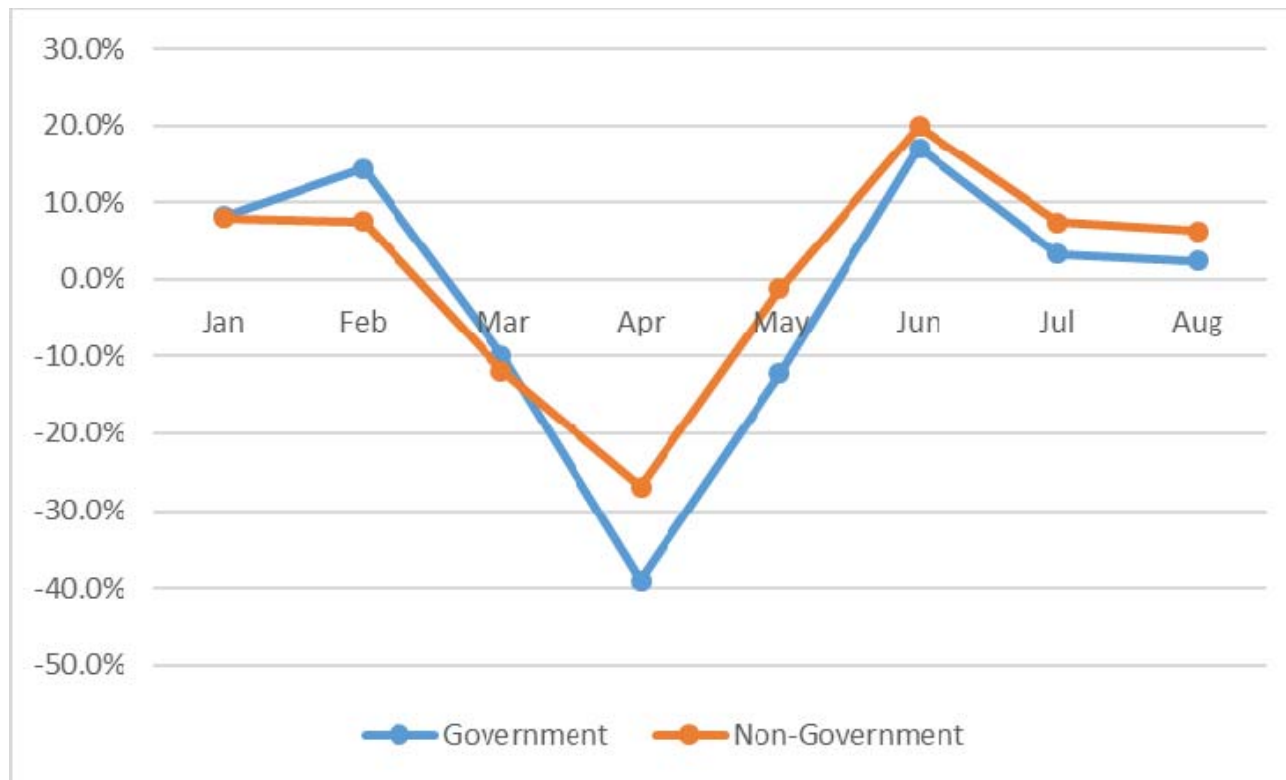


Avg RAM Sep 2020



Source : CARFAX

CAFAX Odometer Reading Count Change Over Prior Year

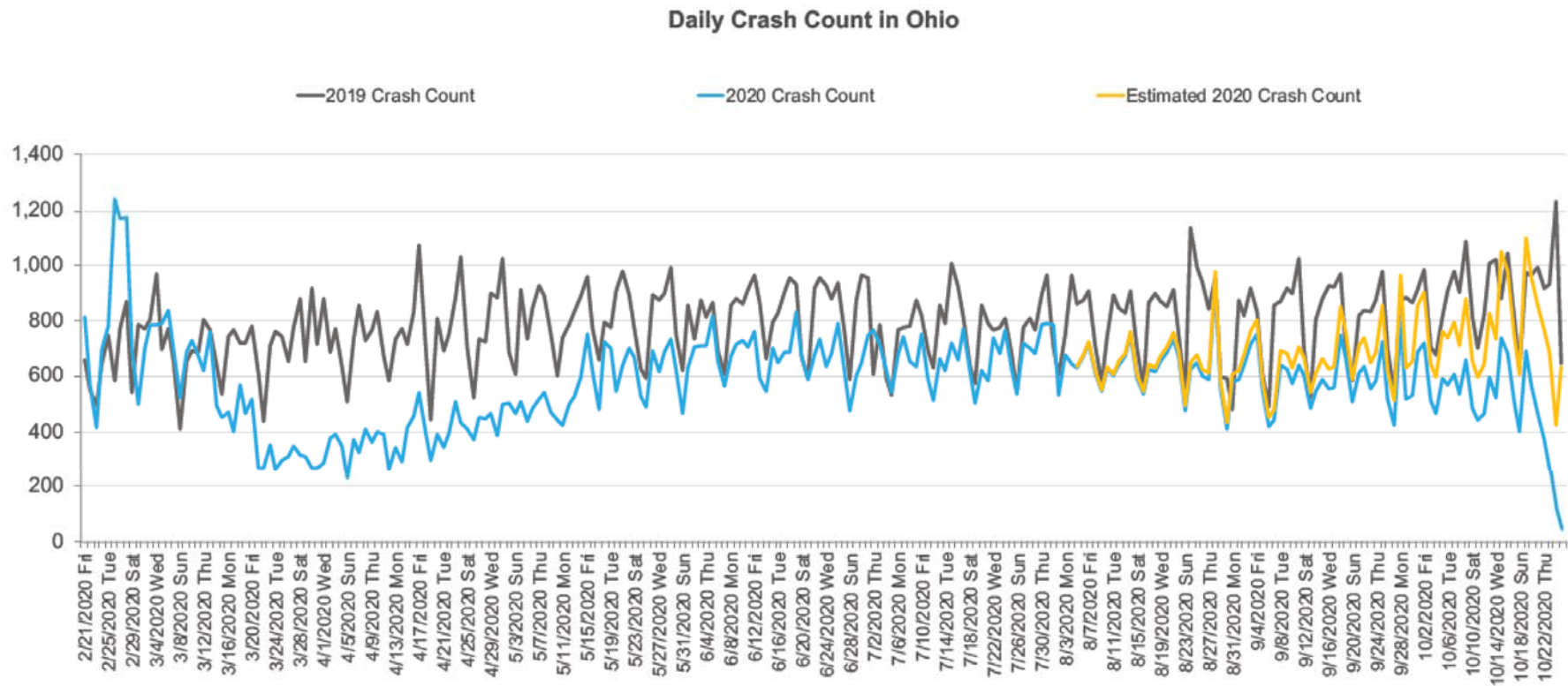


Source : CARFAX

TNEDICCA Accident Report Slides

- TNEDICCA builds a comprehensive proprietary traffic crash location database gathering data from 39 states representing more than 91% of U.S. auto insurance premium.
- In some states, TNEDICCA tracks crash information on a daily basis.
- TNEDICCA is providing early insights on the Coronavirus pandemic impact on the auto insurance industry.
- Several state measures have led to a reduction in commute times and lower observed crash frequency.
- This would mean significant reduction in claims frequency to carriers. However, carriers should monitor the potential increase in premium payment lapses during this economic hardship period.
- Since the situation continues to change quickly, TNEDICCA continues to monitor the impact and enable carriers to make informed decisions.

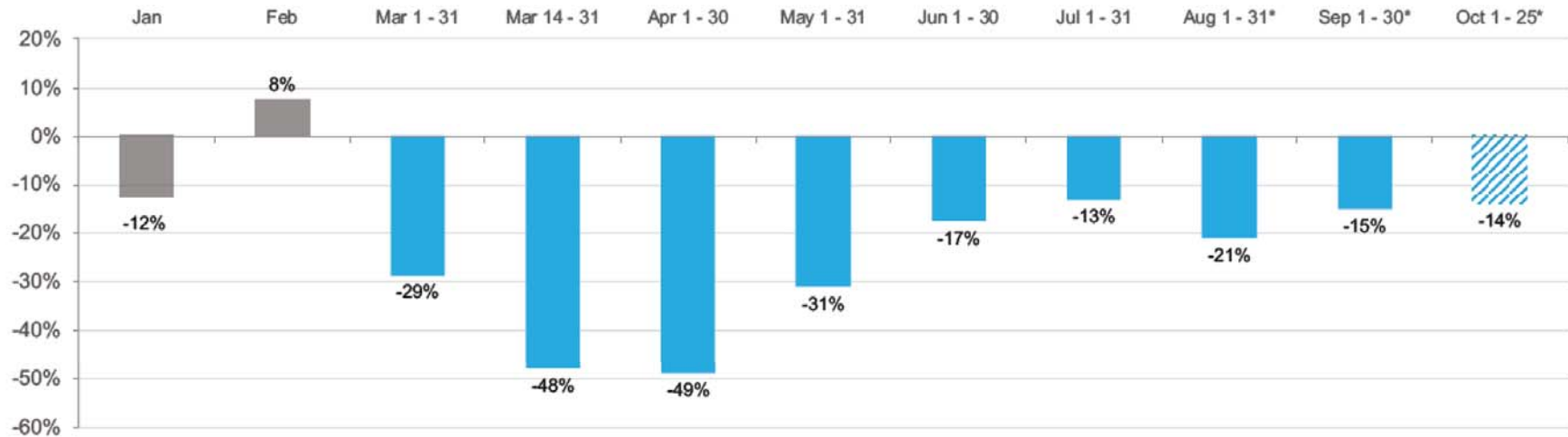
Daily Crash Frequency - Ohio



Source: TNEDDICA

Crash Frequency in Ohio – 2020 vs. 2019

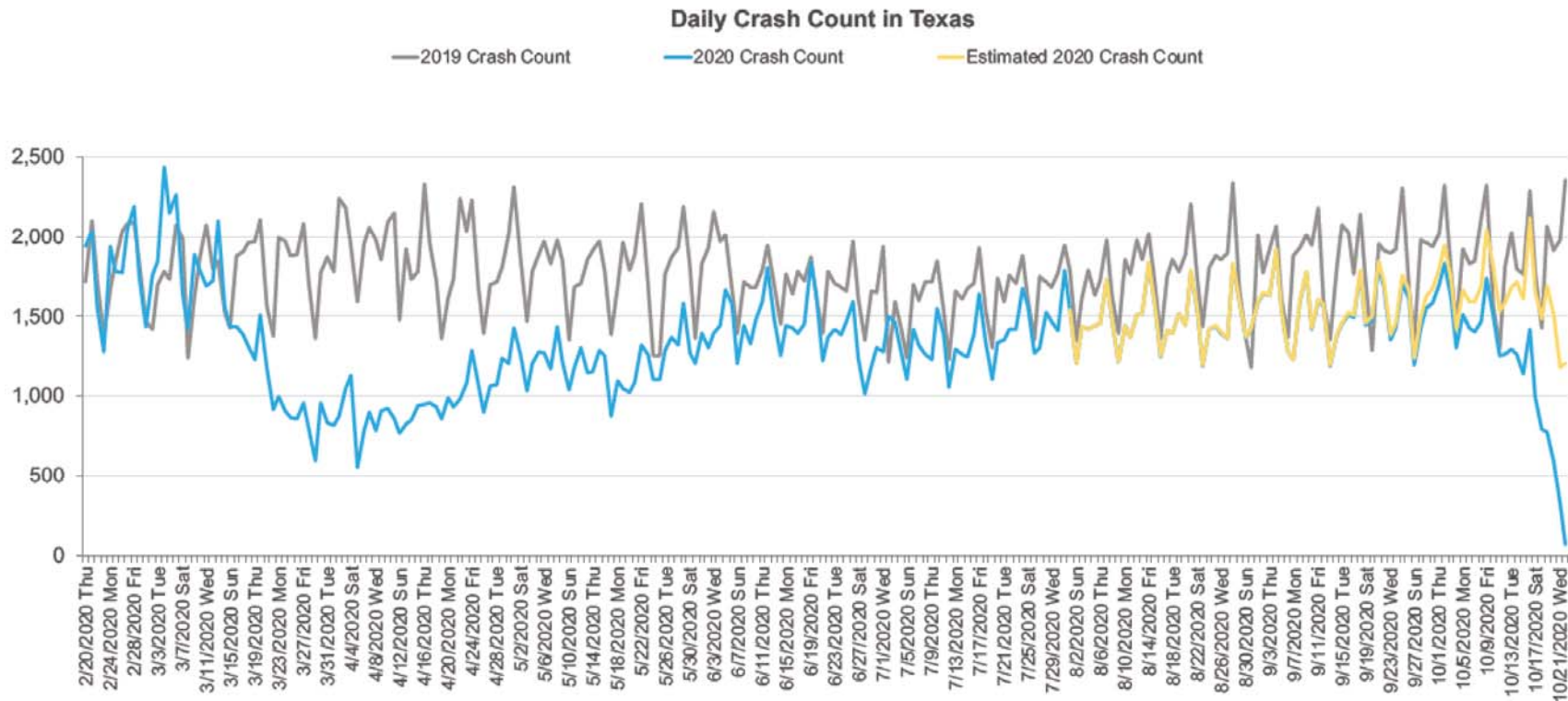
Percentage Change in Crash Frequency in Ohio
2020 vs. 2019



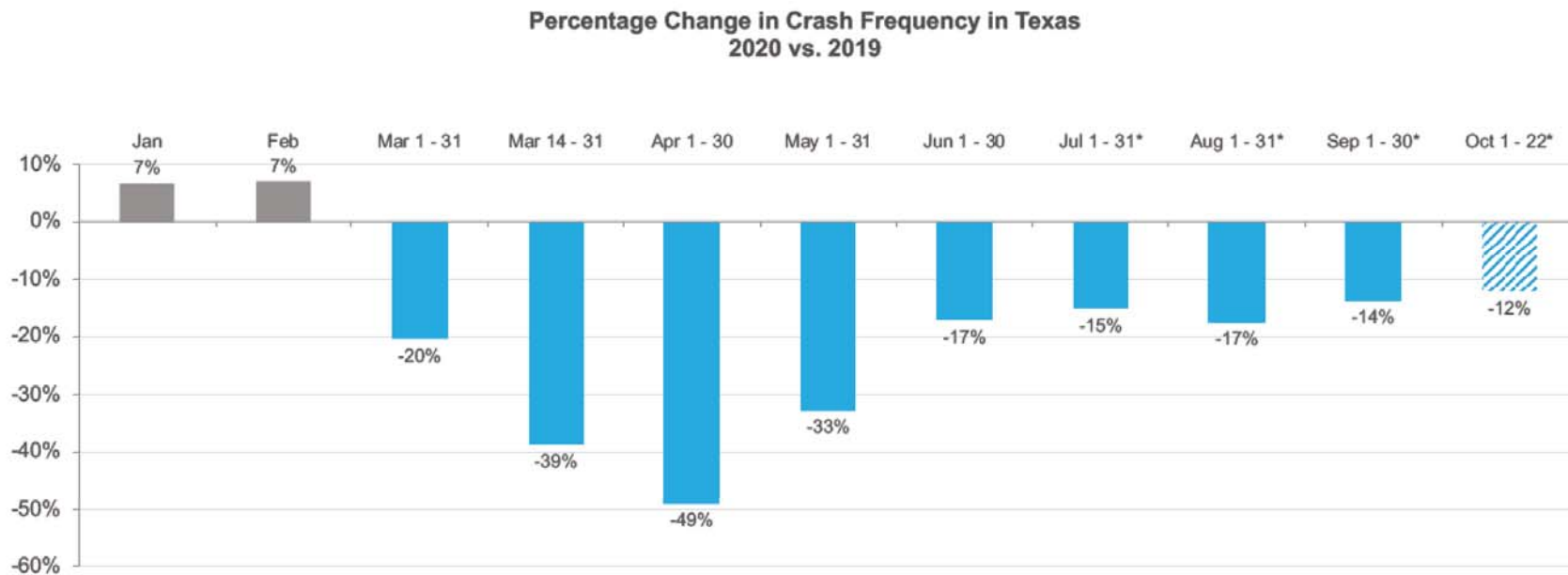
* Actual crash counts were adjusted for data report lag

Source: TNEDDICA

Daily Crash Frequency - Texas



Crash Frequency in Texas – 2020 vs. 2019

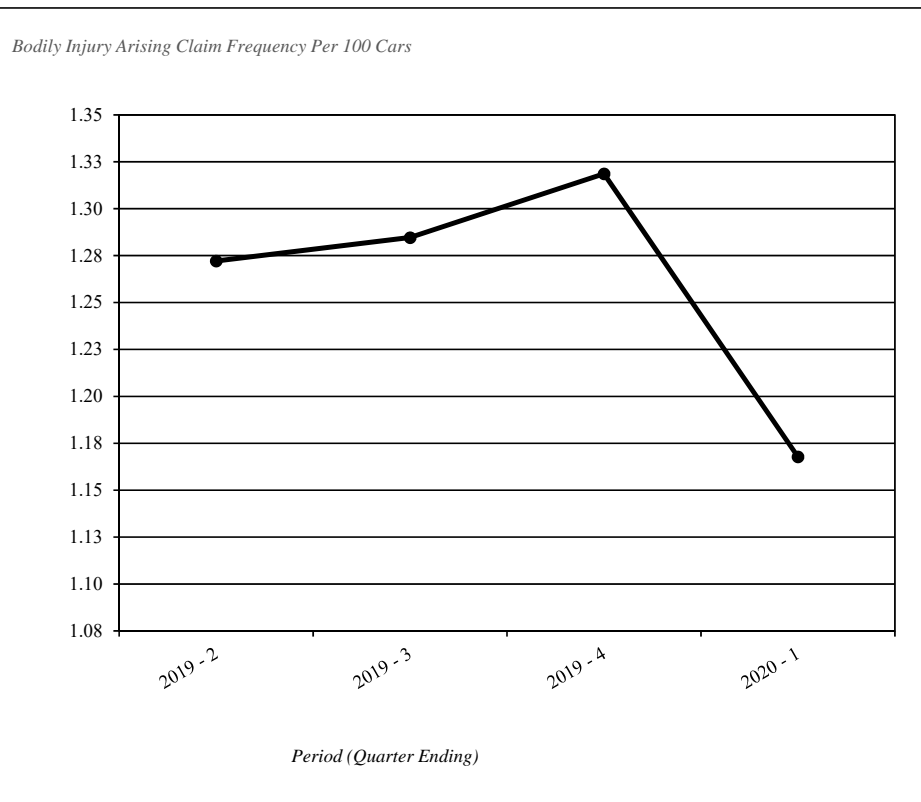


* Actual crash counts were adjusted for data report lag

Source: TNEDDICA

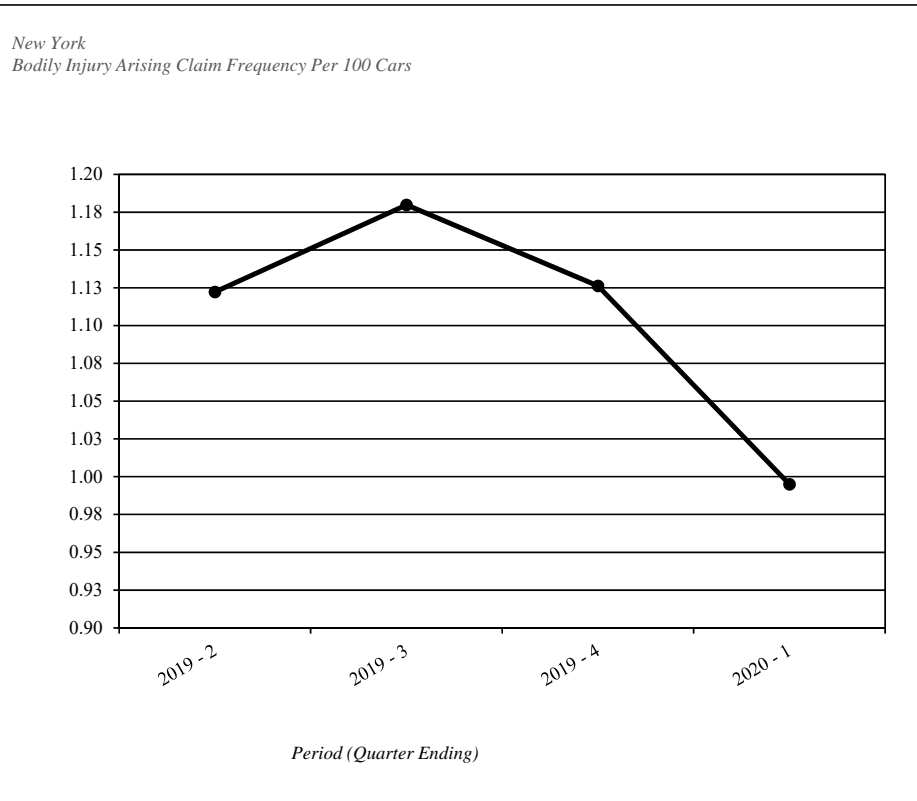
Impact of COVID-19 on Insured Losses

Bodily Injury Arising Claim Frequency – Countrywide



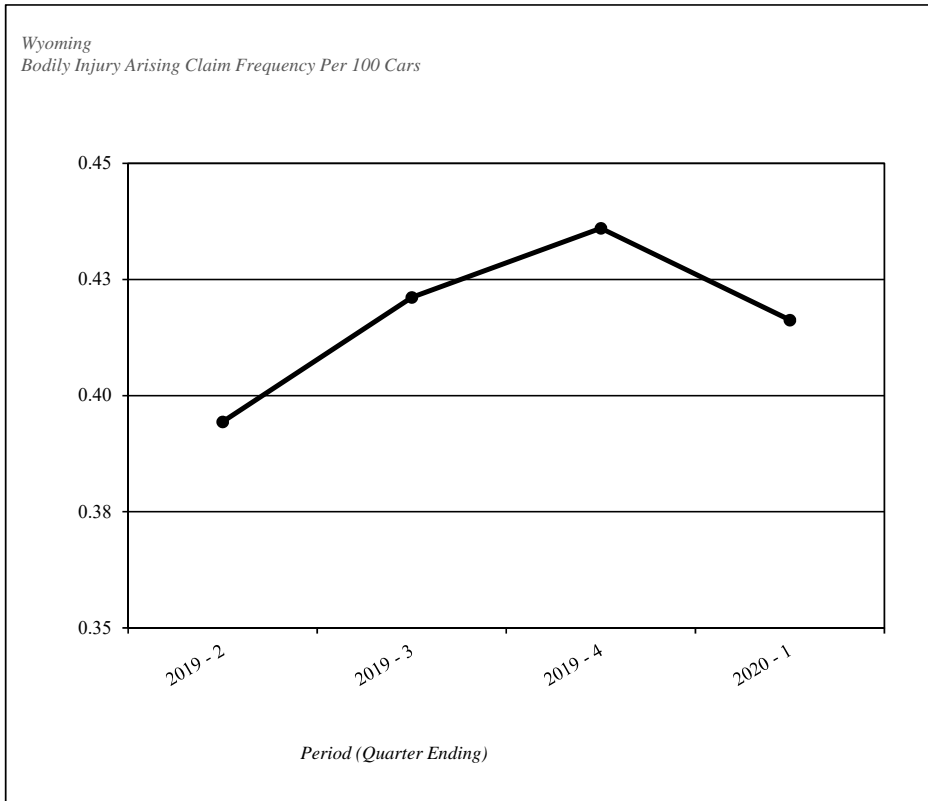
Bodily Injury Arising Claim Frequency		
Quarter Ending	Percent Change From Prior Quarter	Percent Change From 4 Quarters Prior
2019 - 2	0.22%	-3.50%
2019 - 3	0.98%	-0.24%
2019 - 4	2.64%	-3.61%
2020 - 1	-11.44%	-8.00%

Bodily Injury Arising Claim Frequency – New York



Bodily Injury Arising Claim Frequency		
Quarter Ending	Percent Change From Prior Quarter	Percent Change From 4 Quarters Prior
2019 - 2	5.62%	3.24%
2019 - 3	5.13%	4.78%
2019 - 4	-4.54%	-2.53%
2020 - 1	-11.65%	-6.35%

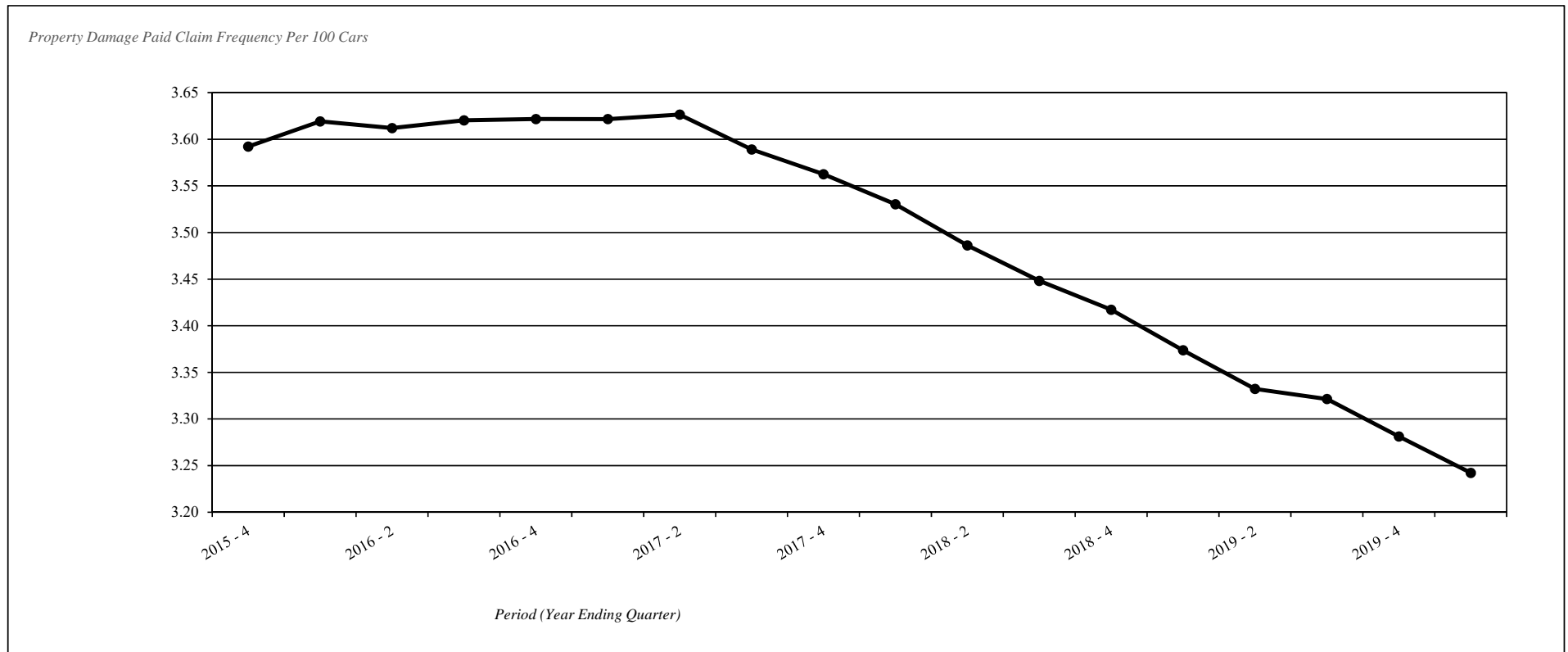
Bodily Injury Arising Claim Frequency – Wyoming



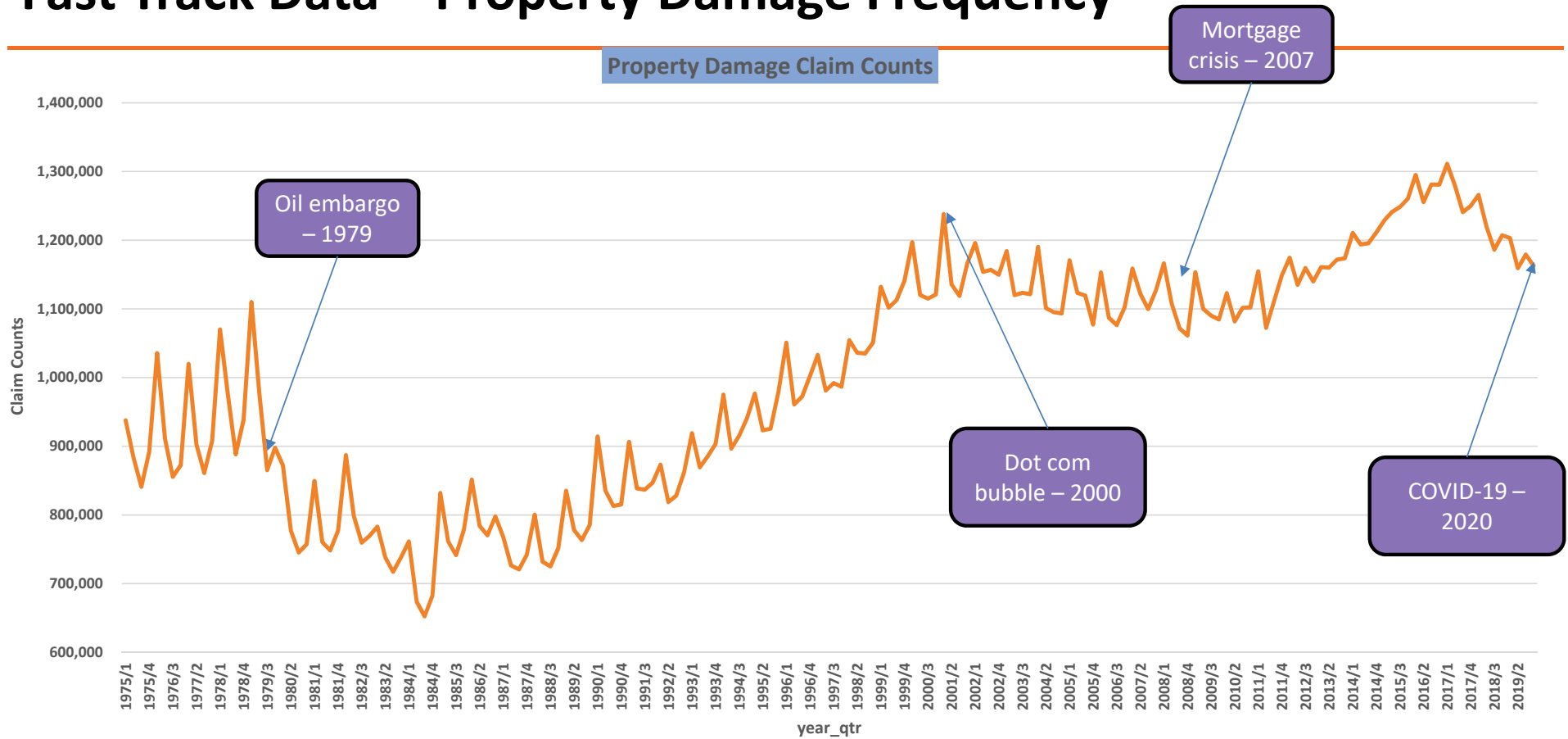
Bodily Injury Arising Claim Frequency		
Quarter Ending	Percent Change From Prior Quarter	Percent Change From 4 Quarters Prior
2019 - 2	-7.71%	-5.65%
2019 - 3	6.79%	-9.83%
2019 - 4	3.54%	-4.52%
2020 - 1	-4.53%	-2.58%

Implications on Future Loss Projections

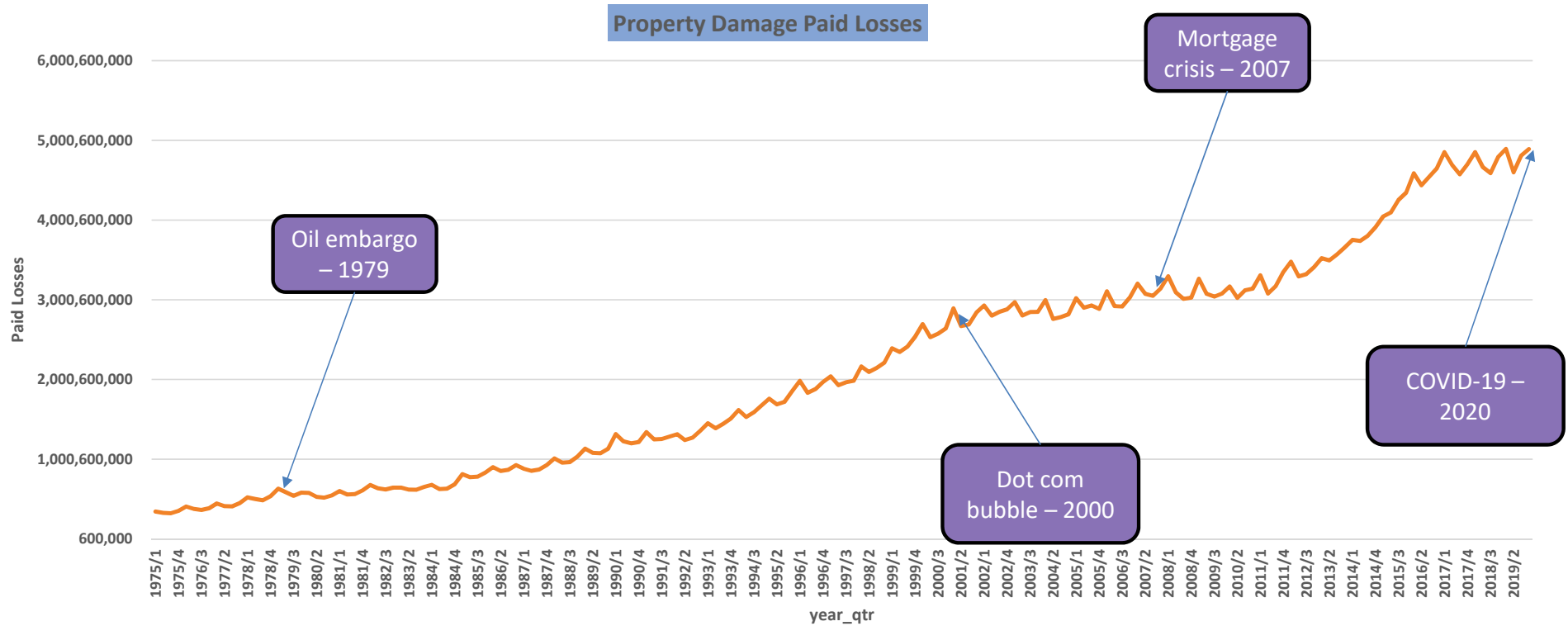
Fast Track Data – Property Damage Frequency



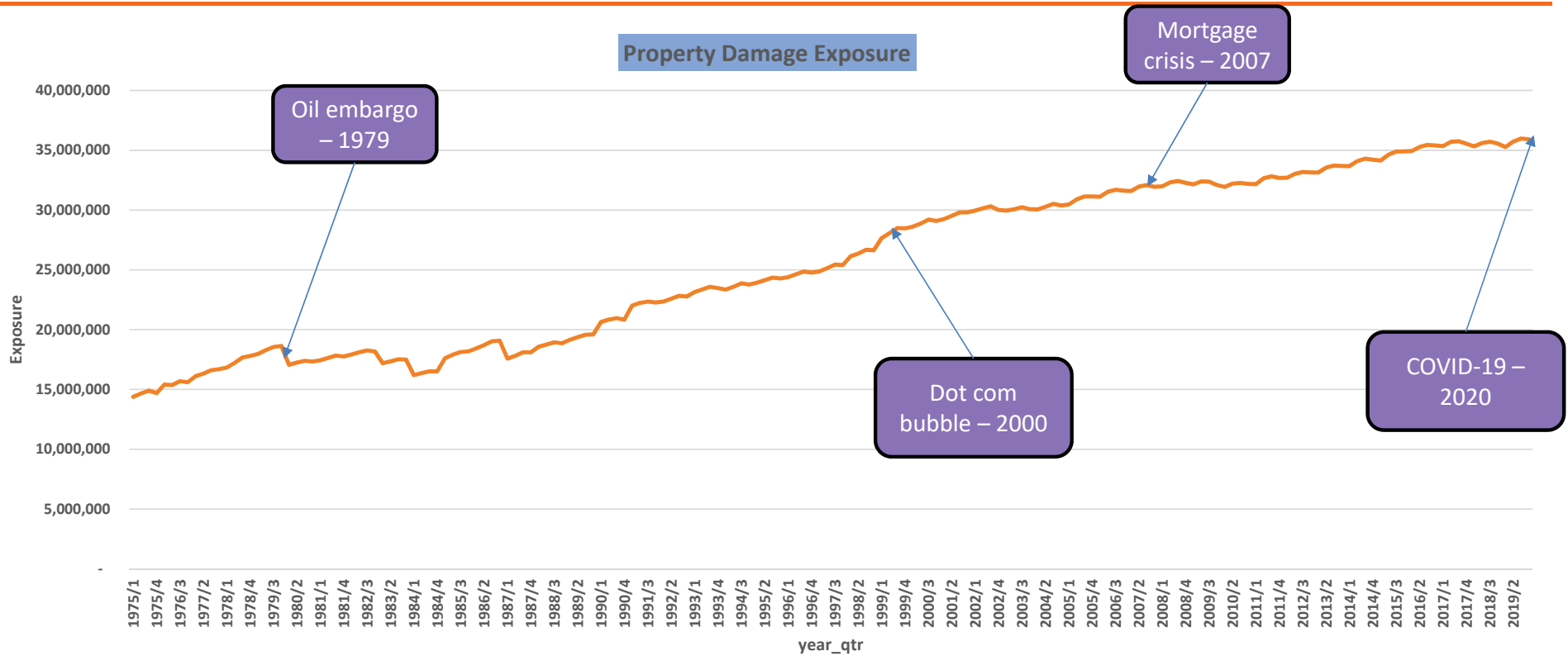
Fast Track Data – Property Damage Frequency



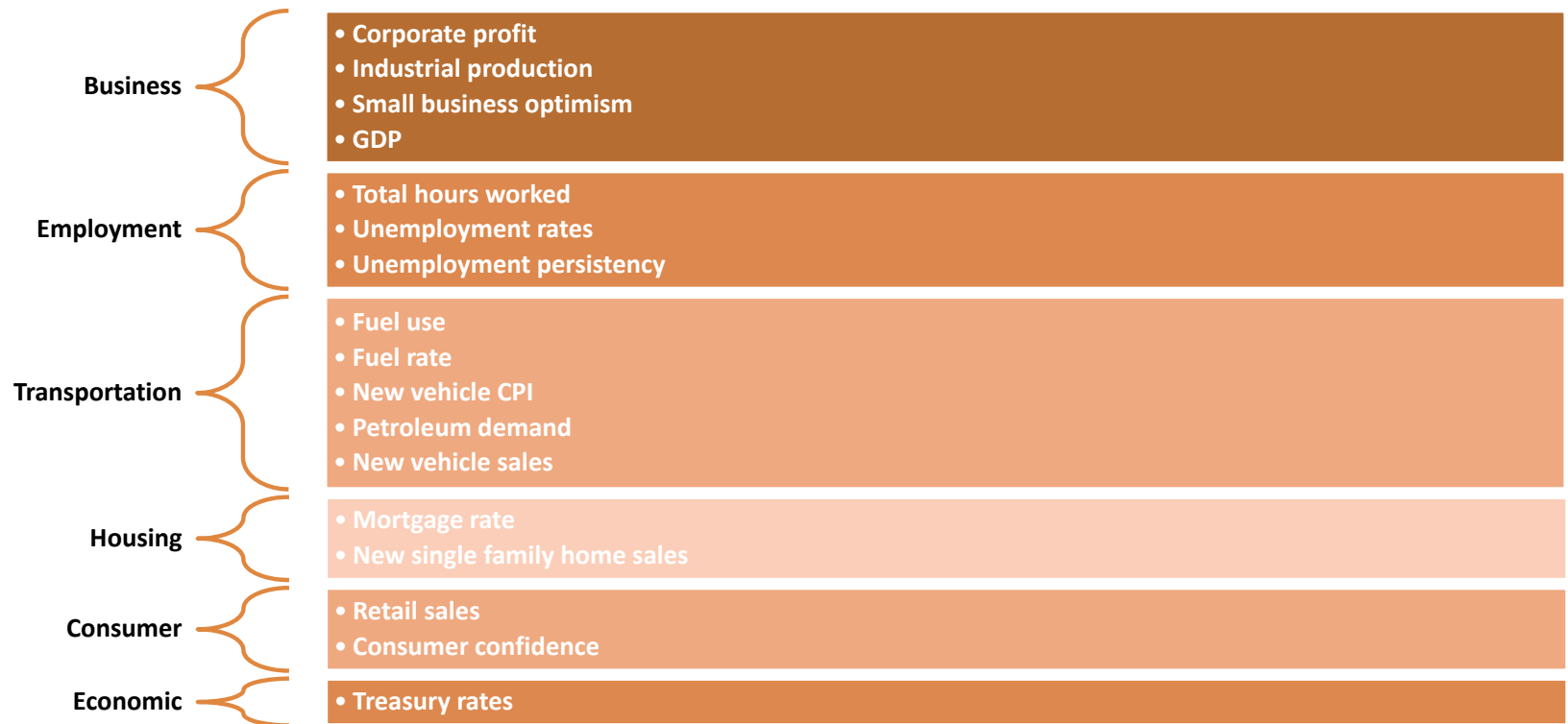
Fast Track Data – Property Damage Paid Losses



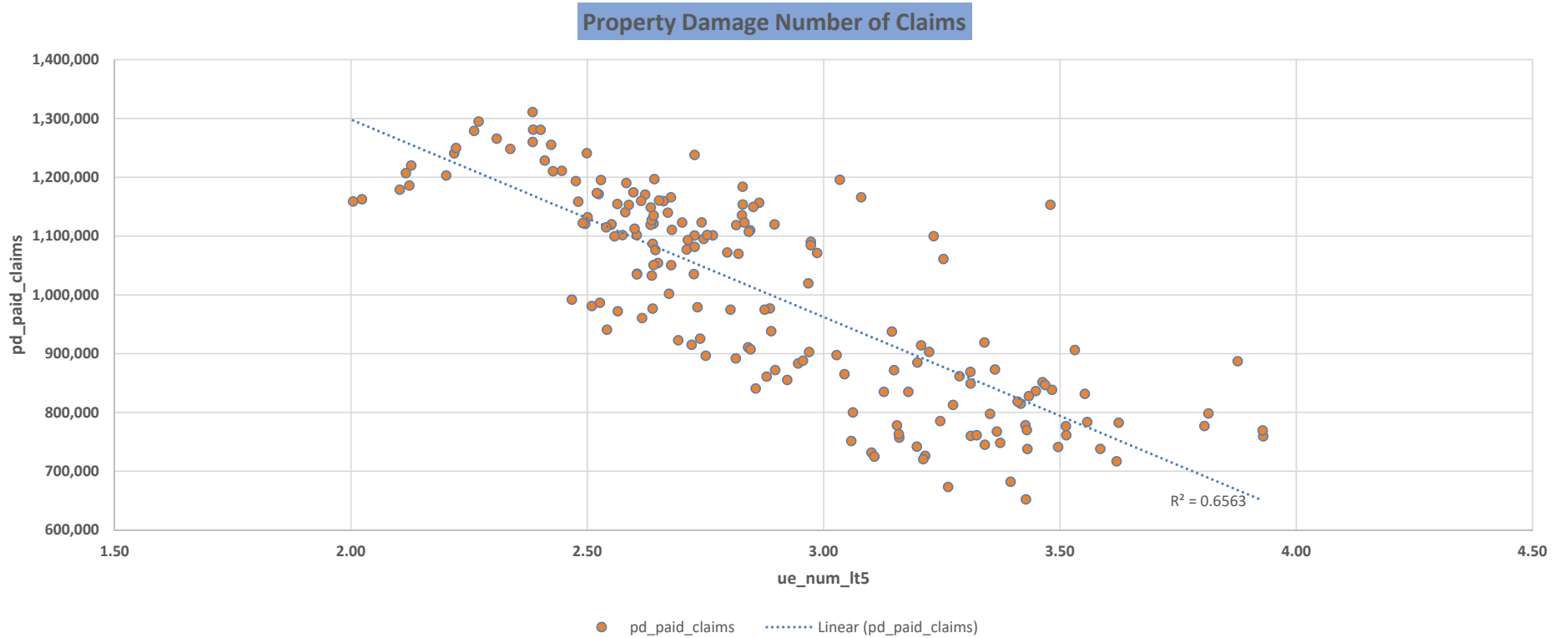
Fast Track Data – Property Damage Paid Losses



Economic Variables Used to Project Cost and Frequency Trends

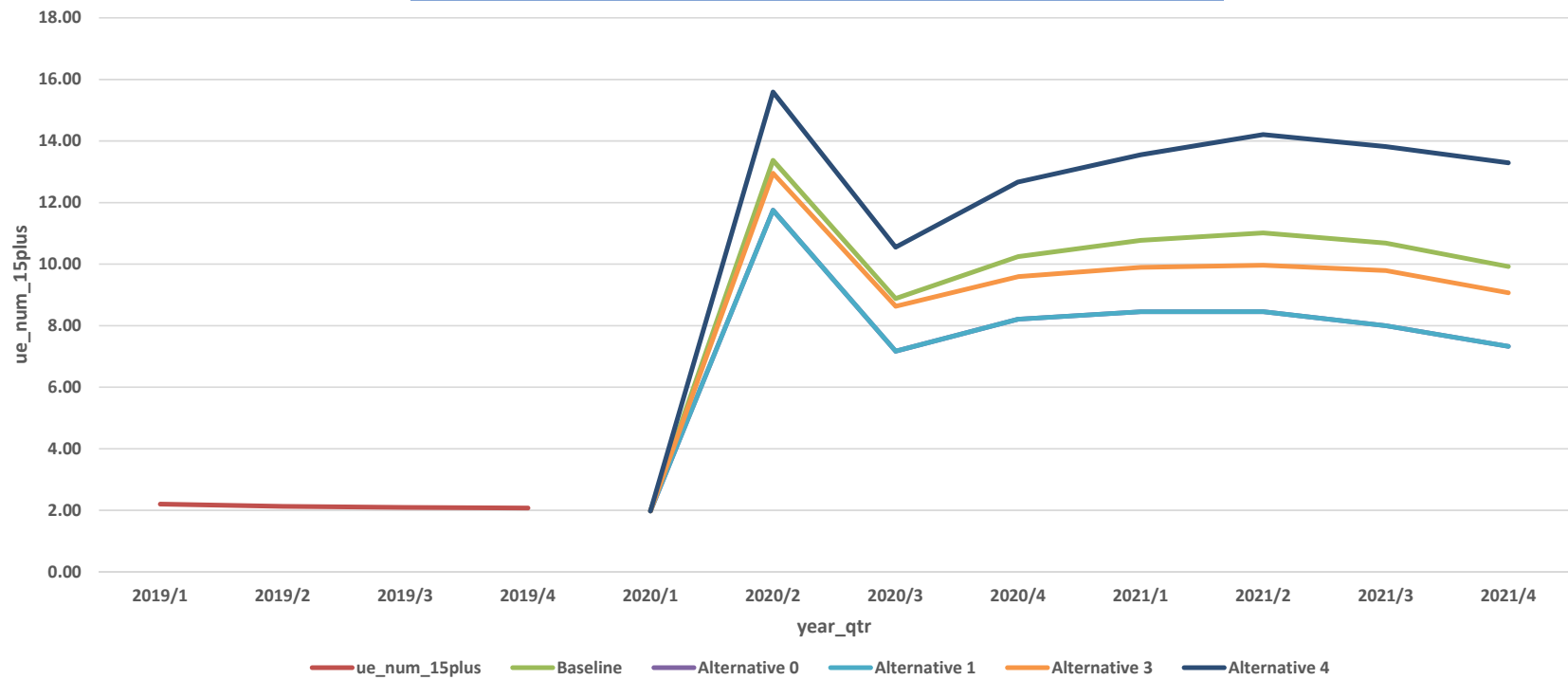


Number of Paid Claims vs. Number Unemployed Less Than 5 Weeks

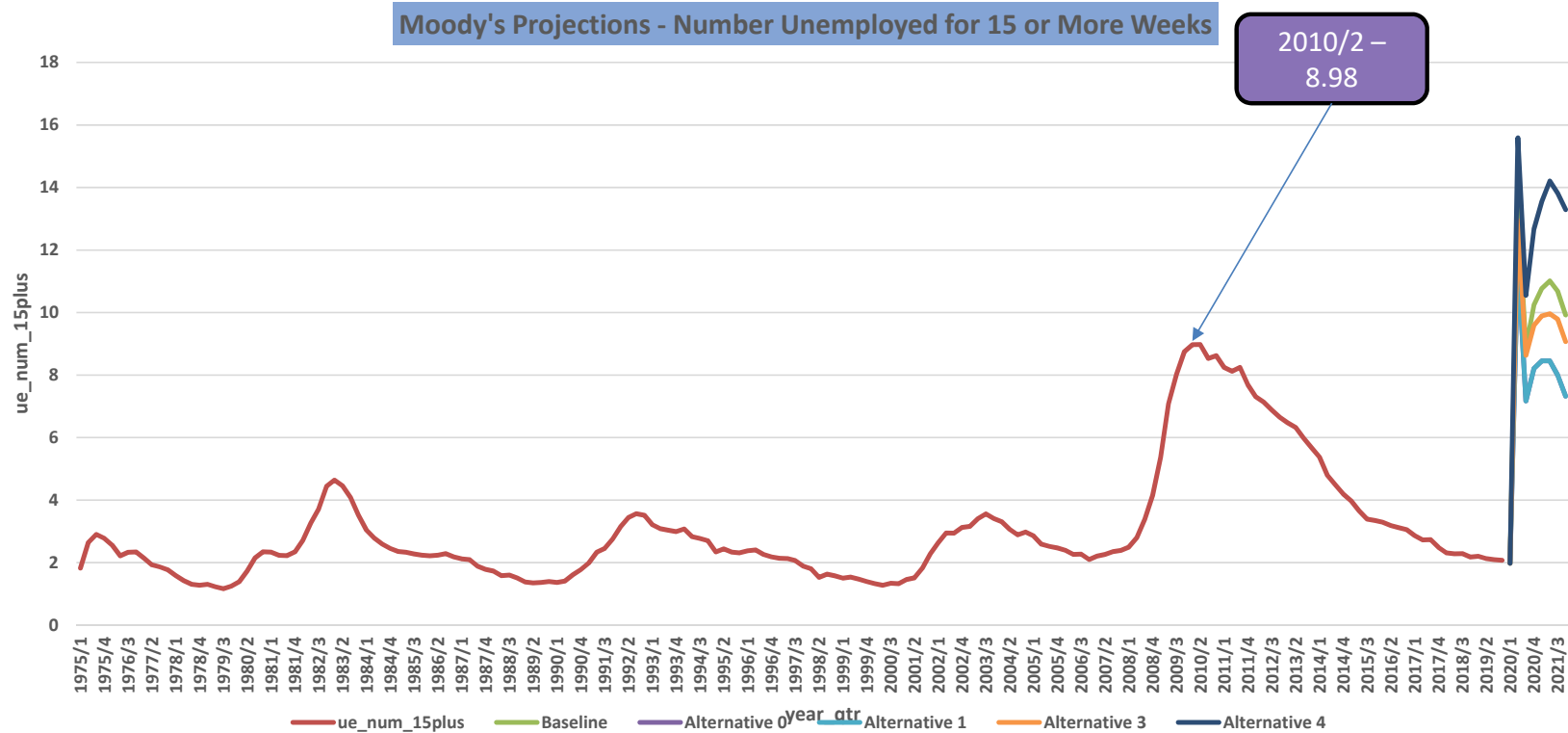


Economic Projections

Moody's Projections - Number Unemployed for 15 or More Weeks



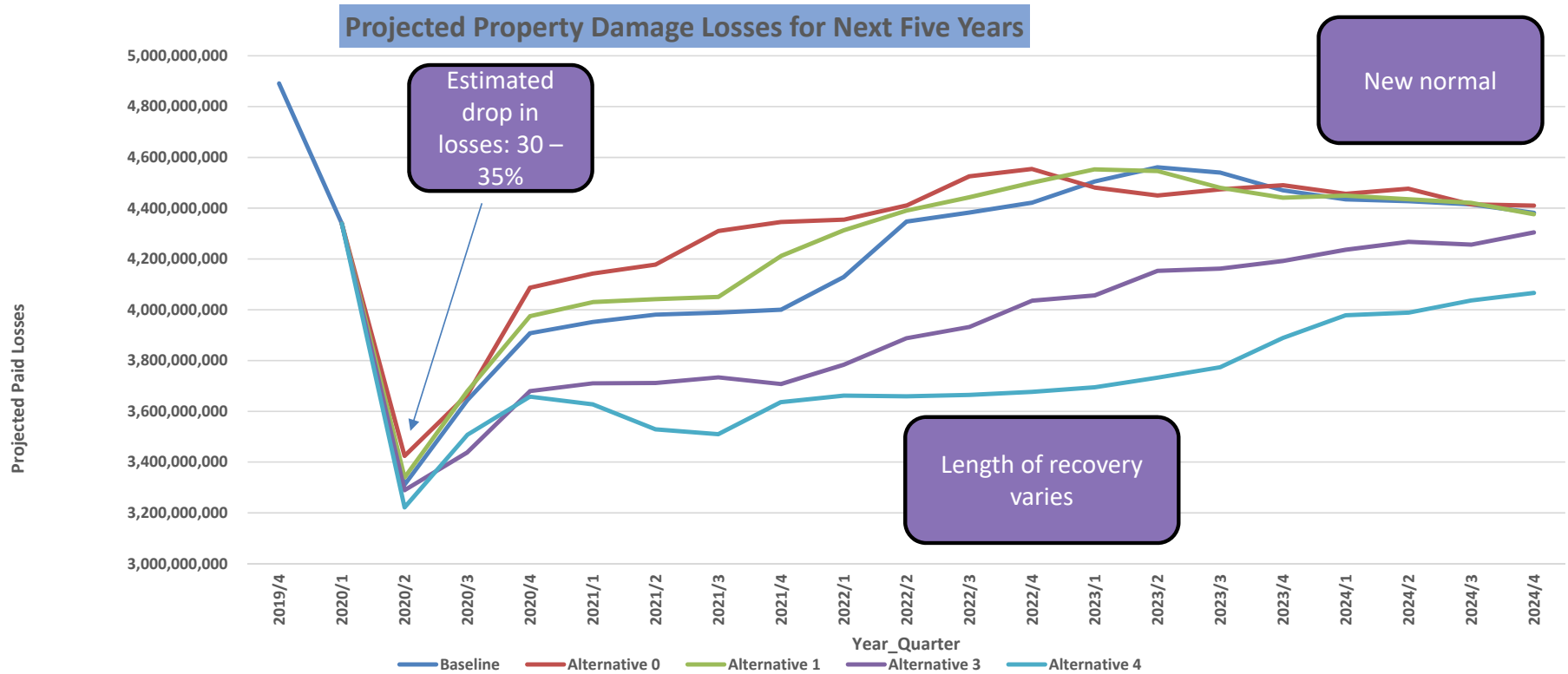
Economic Projections – Previous Peak



Projections – Why the Future Will Not Be Like The Past

- Drop in mileage driven is not the same across the board
 - Essential workers
- Rebound in mileage will be even more varied
 - Phased reopening plan
 - Individual companies are developing their own schedules
 - Work at home options
 - Concerns with public modes of travel
- Current and projected economic conditions are like nothing we have seen in the past 40 years

Expected Loss Projections



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