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## Precautionary Buying During the COVID Pandemic: Evidence from Grocery Scanner Data

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**INTRODUCTION**

The COVID-19 virus, originating in Wuhan, China in December 2019, was disseminated worldwide by March 2020. To contain the pandemic, quarantines and lockdowns were implemented around the world. As the global economy slowed to a halt, so did supply chains. Consumers, faced with the possibility of long periods of seclusion, enacted disaster related buying, also called “panic buying.” This phenomenon results when consumers buy large quantities of a particular product due to anticipated shortages or price increases.

**BACKGROUND**

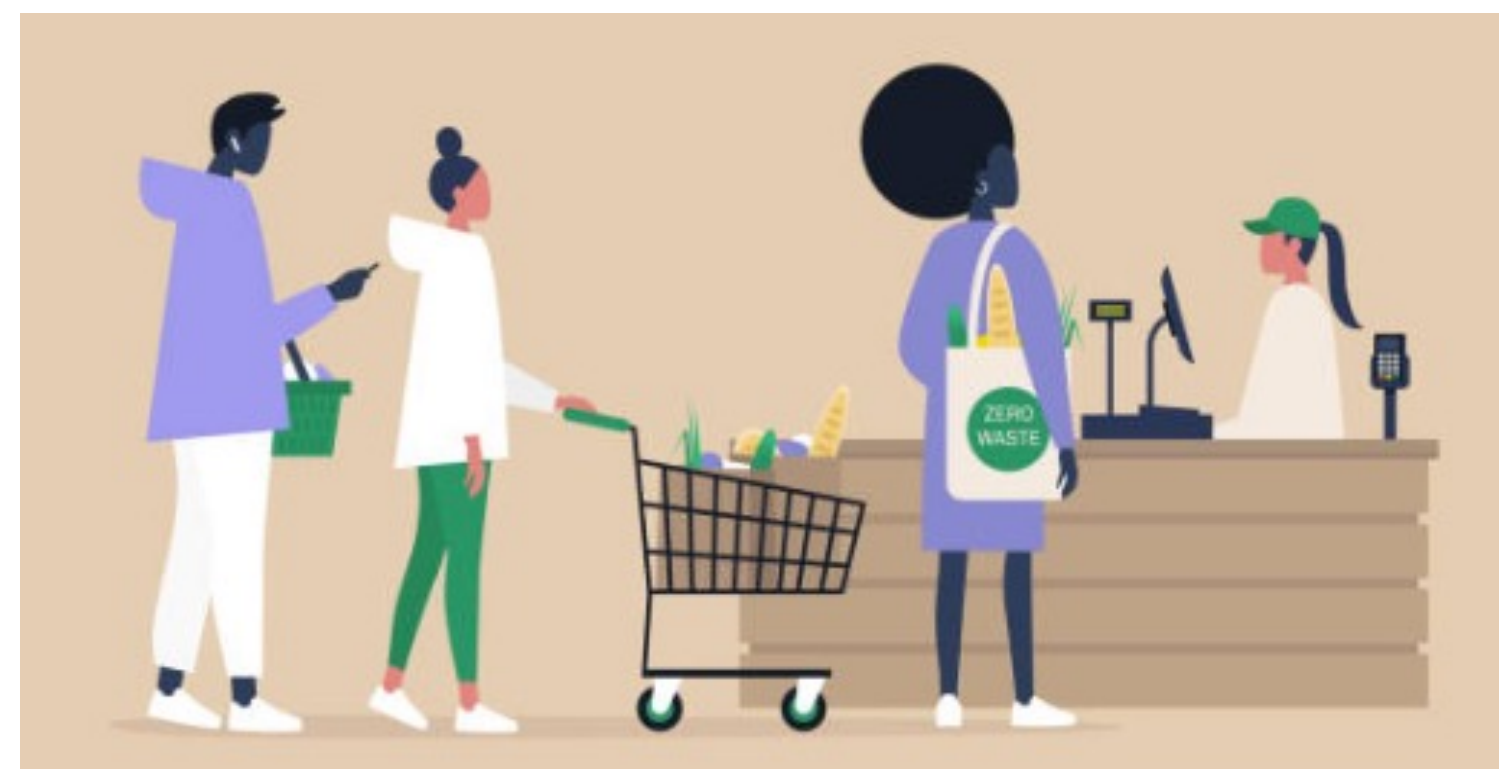
On March 13<sup>th</sup>, 2020, the virus was showing no signs of stopping, so the U.S. government declared a national emergency and travel ban. Individuals were encouraged to stay at home, only essential businesses remained open.



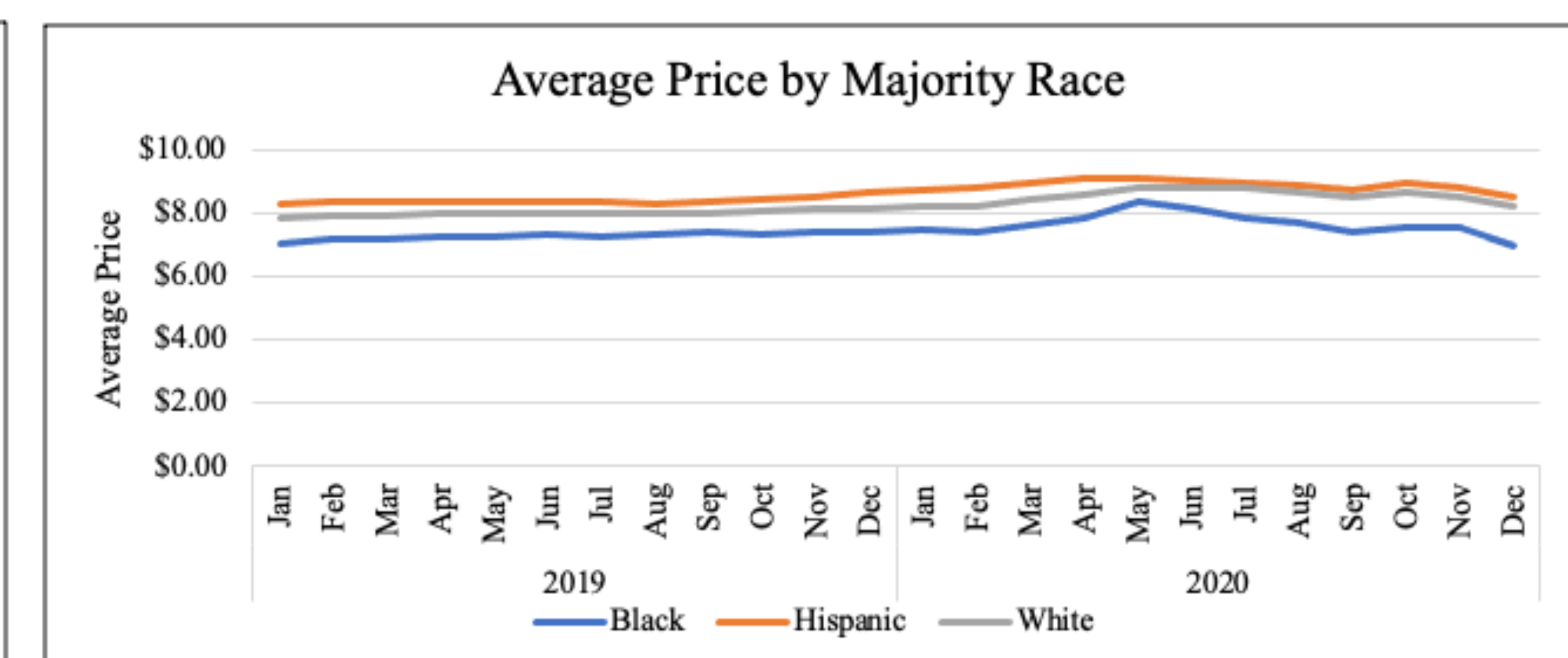
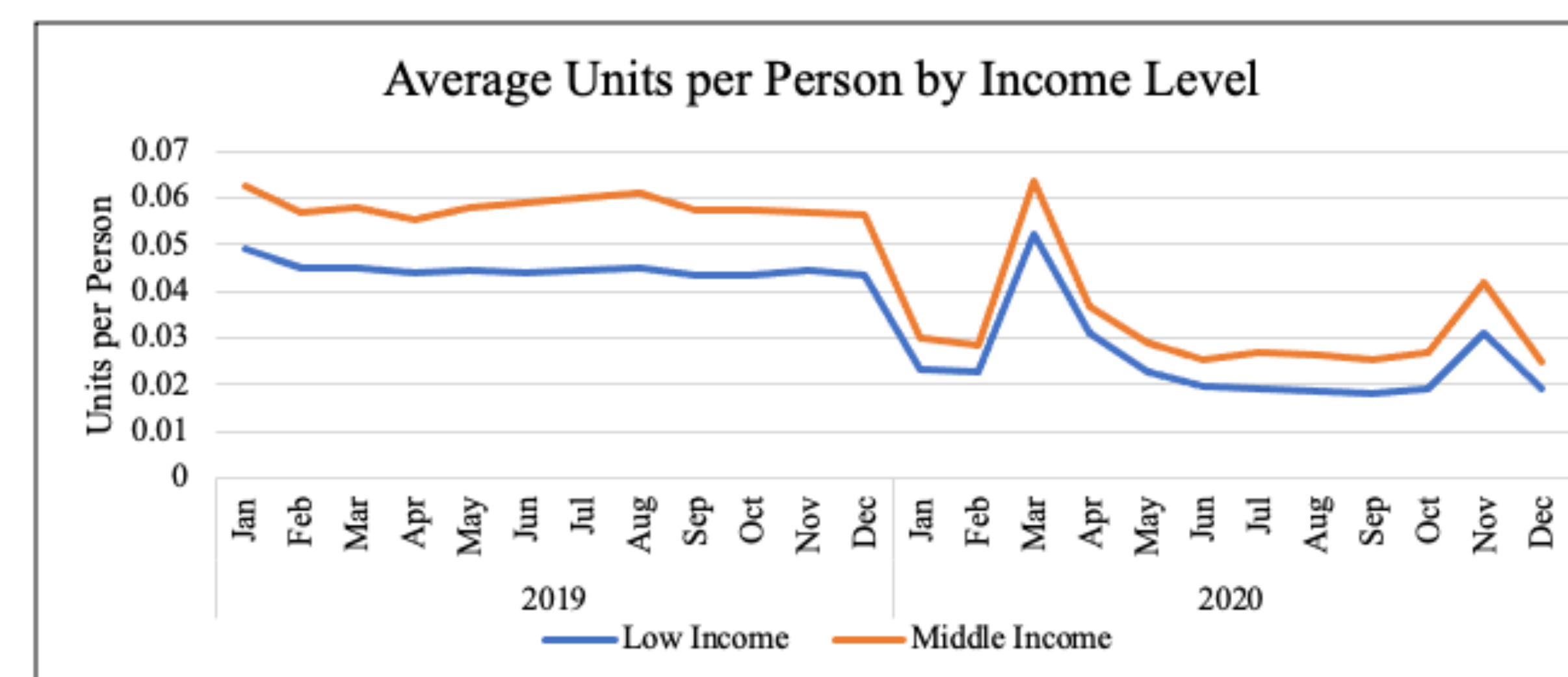
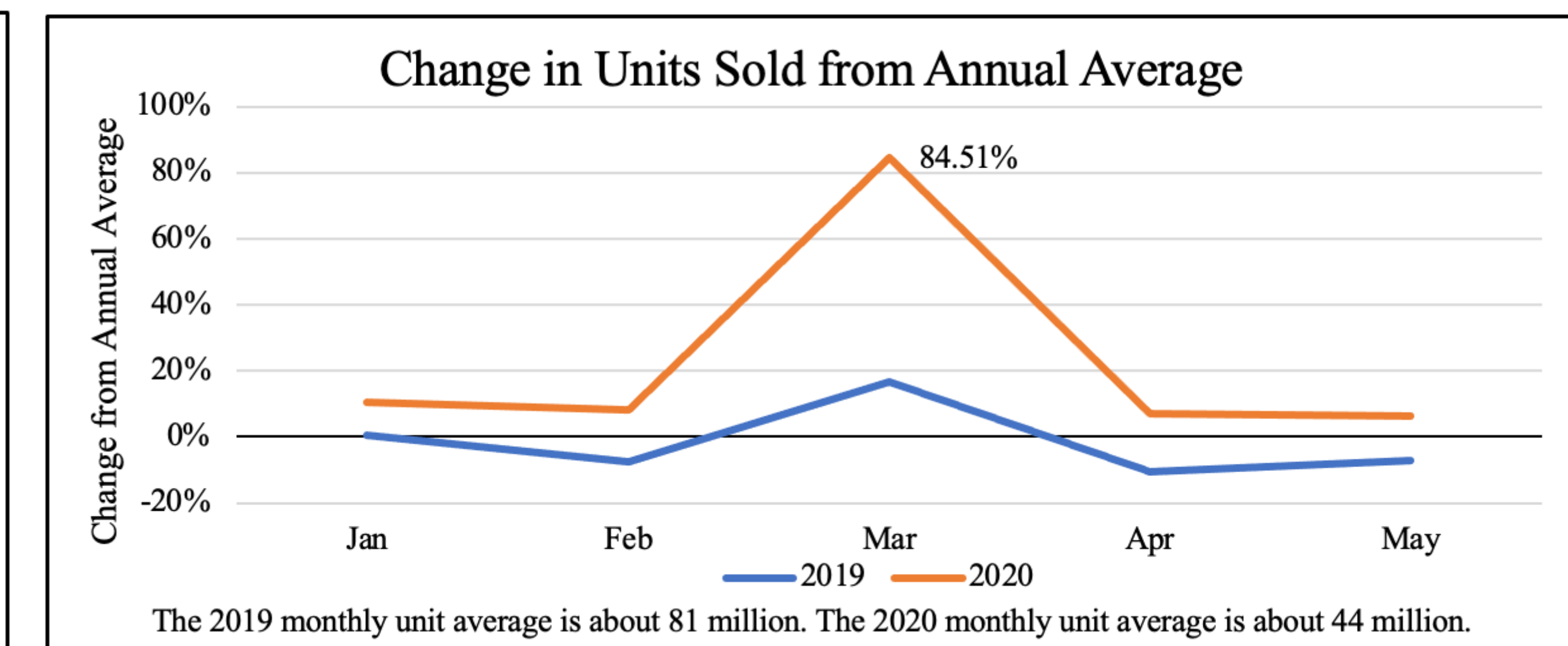
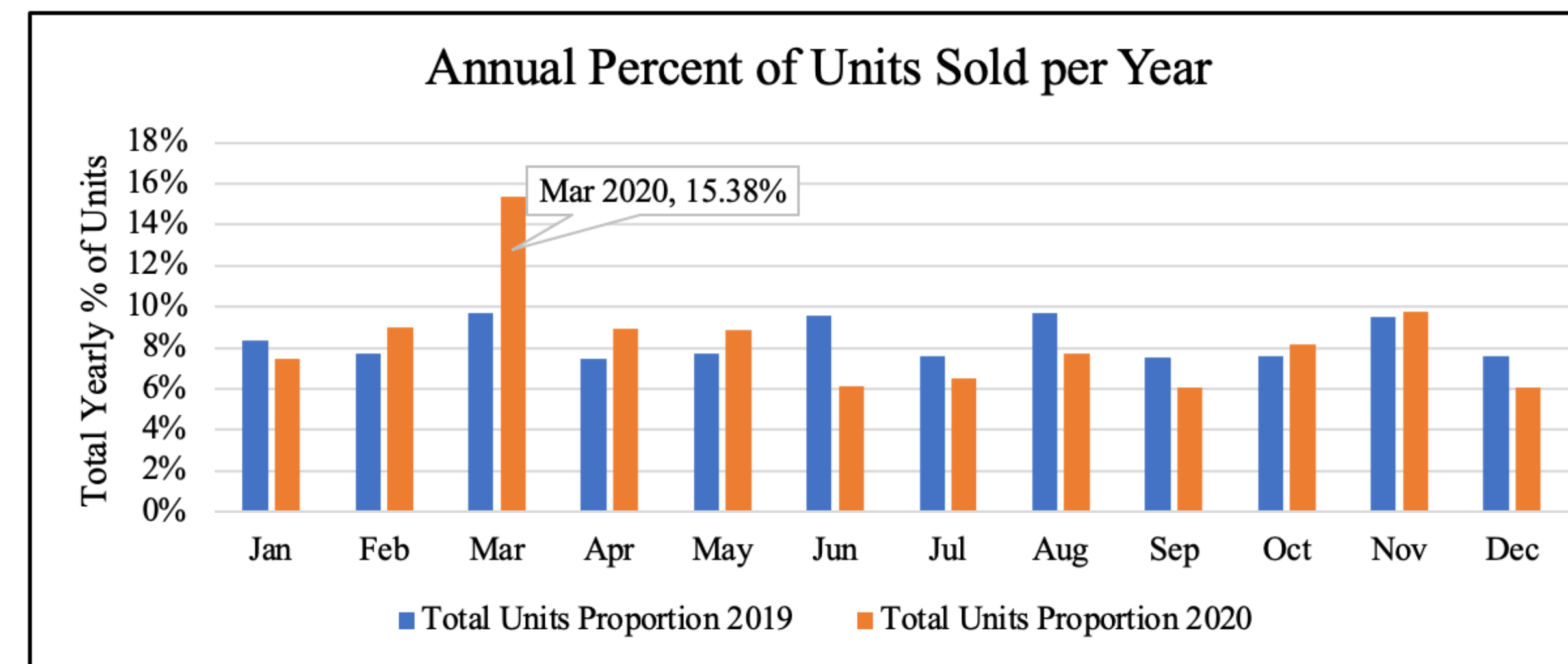
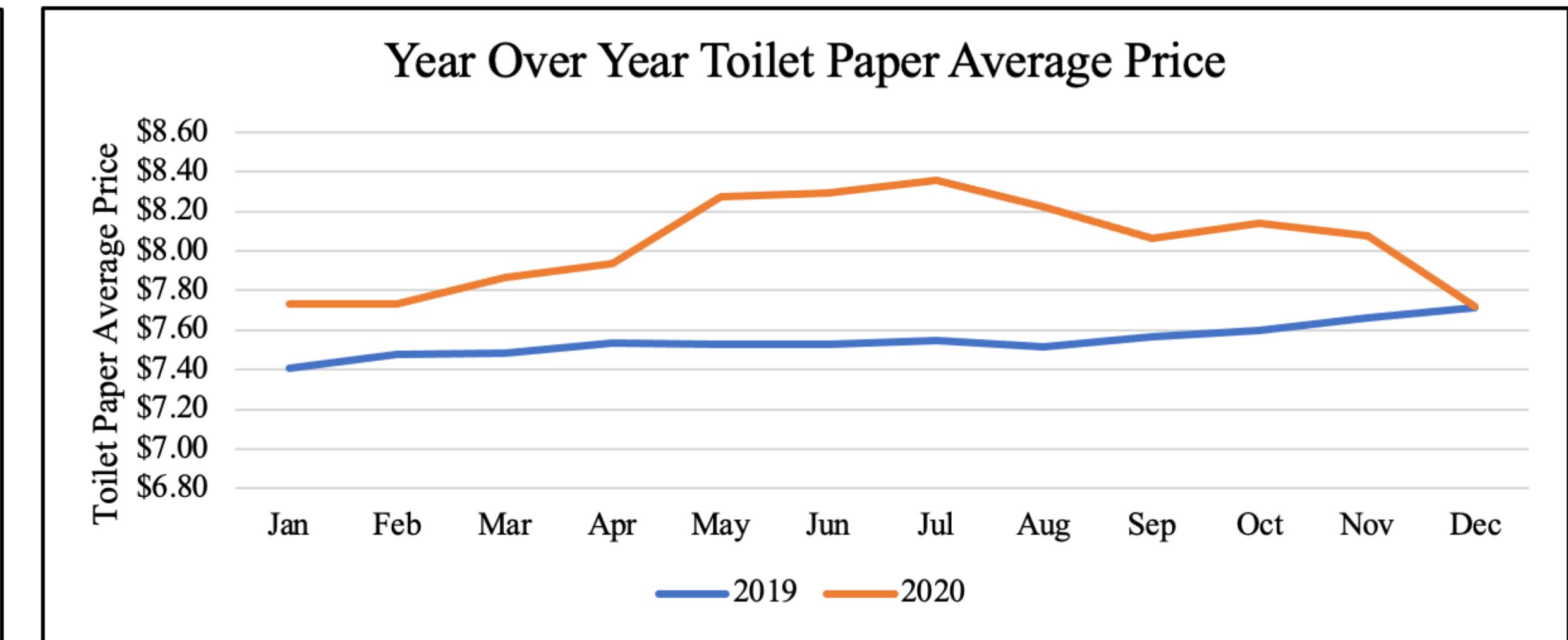
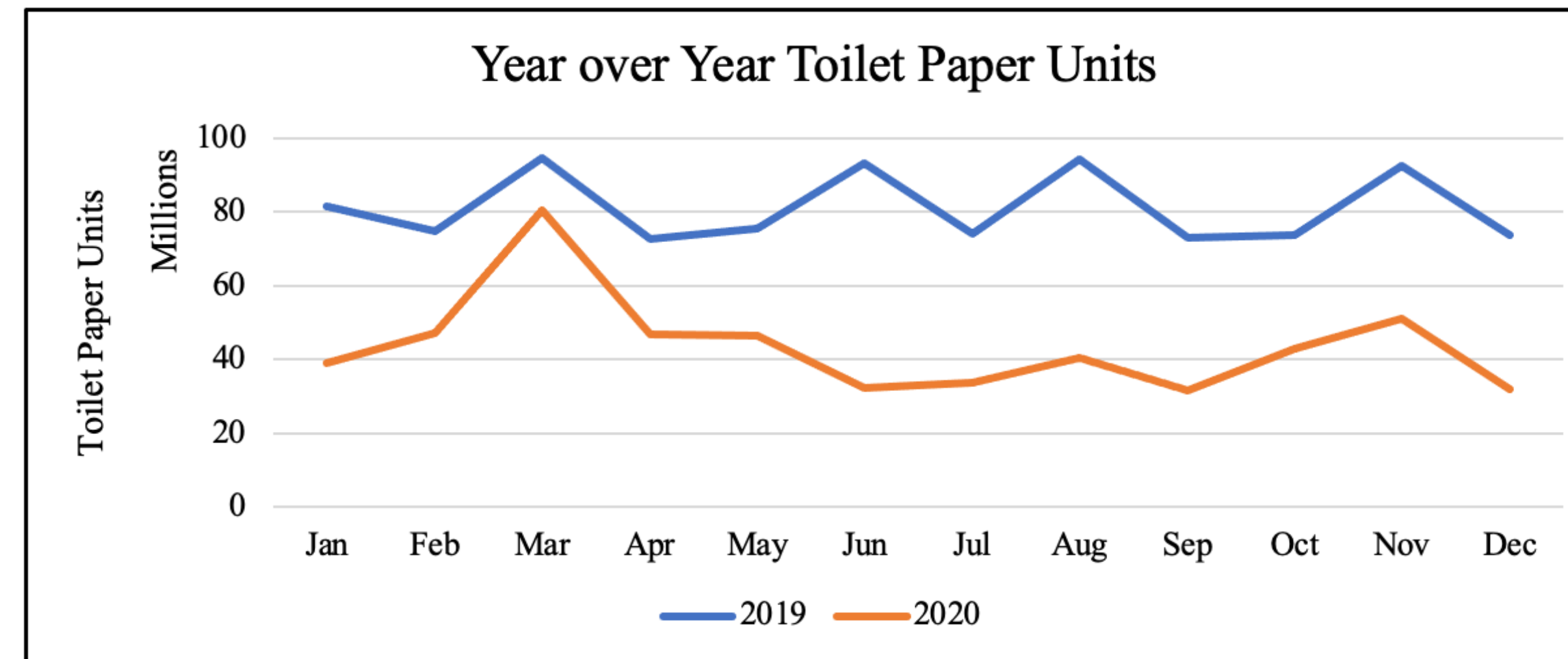
With households expected to remain home, toilet paper was one of the most sought-after items. Also, the media took an extreme interest in the “panic buying” of toilet paper, increasing consumer fears.

**METHODOLOGY**

We used retail scanner data from 2019 to 2020 consisting of weekly store pricing and volume generated by POS systems from 35 to 50 thousand U.S. grocery stores. The data is collected by Nielsen and made available by the Kilts Center for Marketing at the University of Chicago. We also used U.S. Census Bureau data to determine race and income levels by county.



**RESULTS**



**KEY FINDINGS**

- As toilet paper prices increase in from 2019 to 2020, total units sold decreases, showing that higher prices discouraged consumers from a continued increase in toilet paper purchases.
- In March 2020, the annual percent of toilet paper units sold was 15.83%, highlighting the extreme jump in toilet paper sales.
- In March 2020, toilet paper units sold increased 84.51% higher than the monthly average.
- Middle income earners, on average, had more toilet paper per person than low income earners.
- In counties where Hispanic people were the majority race, the average price of toilet paper was higher than it was for white people followed by black people.

**MANAGERIAL IMPLICATIONS**

Instead of increasing the price of toilet paper to discourage disaster related buying, retailers can limit the amount of toilet paper a customer buys. This would prevent higher income earners and certain races from having an advantage in purchasing necessities. Supply chain professionals may also allocate more amounts of toilet paper in lower income and minority counties to ensure equal access.