



National Commission
on COVID-19 and
Criminal Justice

Sheltering in Place and Domestic Violence

Evidence from Calls for Service during COVID-19

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Overview

The worldwide COVID-19 pandemic has pushed people to spend more time at home, amidst increased uncertainty and soaring unemployment rates. The best available evidence tells us that these conditions have the potential to increase domestic violence (Lindo et al., 2018; Card and Dahl, 2011). News outlets around the world reported increased reports of domestic violence as the pandemic spread globally during Spring 2020.

We use data on calls for service to the police from 14 large American cities to compare domestic violence calls before and after the pandemic began in the United States, relative to trends during the same period in 2019. **The pandemic led to a 7.5% increase in calls for service during March, April, and May.** The biggest increase came during the first five weeks after widespread social distancing began, when domestic violence calls were up 9.7%. State-mandated stay-at-home orders and school closures came later, suggesting the increase was not only a response to shelter-in-place policies. The increase came across a broad range of demographic and socioeconomic groups, and includes households without a recent history of domestic violence calls.

TIMING OF EFFECTS

Data from several sources establish when the pandemic began to induce people to spend more time at home. Mobile device tracking data from SafeGraph (2020) and Unacast (2020), as well as OpenTable restaurant seated diner data indicate that behavior began to change around March 9, ten days before the first stay-at-home order went into effect (see Figure 1). During the week of March 9, the World Health Organization declared COVID-19 a pandemic and President Trump declared a national emergency. If we compare the daily number of domestic violence calls in 2020 within city, we find that domestic violence calls are nearly 15% higher after March 9. However, data from previous years also show an uptick in calls in the spring (see Figure 2), suggesting that any estimation that overlooks seasonal trends will overstate the impact of the pandemic. Our analysis shows that failing to account for seasonal trends would overestimate the effects by 100%. The estimated effect of the pandemic on domestic violence is unchanged if we add in earlier years of data to better control for seasonal trends, or if we exclude each city one-by-one.

FIGURE 1

Each graph uses data from a different source as a measure of social distancing intensity. There is a line in each graph for every state in the US. States with cities in our sample are plotted in dark gray. The first panel plots the SafeGraph percent of tracked cellphone devices that do not leave home during the day. The second panel plots Unacast non-essential travel relative to the same day of the week the previous year. The third panel plots the number of seated diners at OpenTable restaurants in 2020 relative to 2019. The Unacast and OpenTable data are measured to account for day-of-week effects; the SafeGraph data are not, leading to a more volatile series.

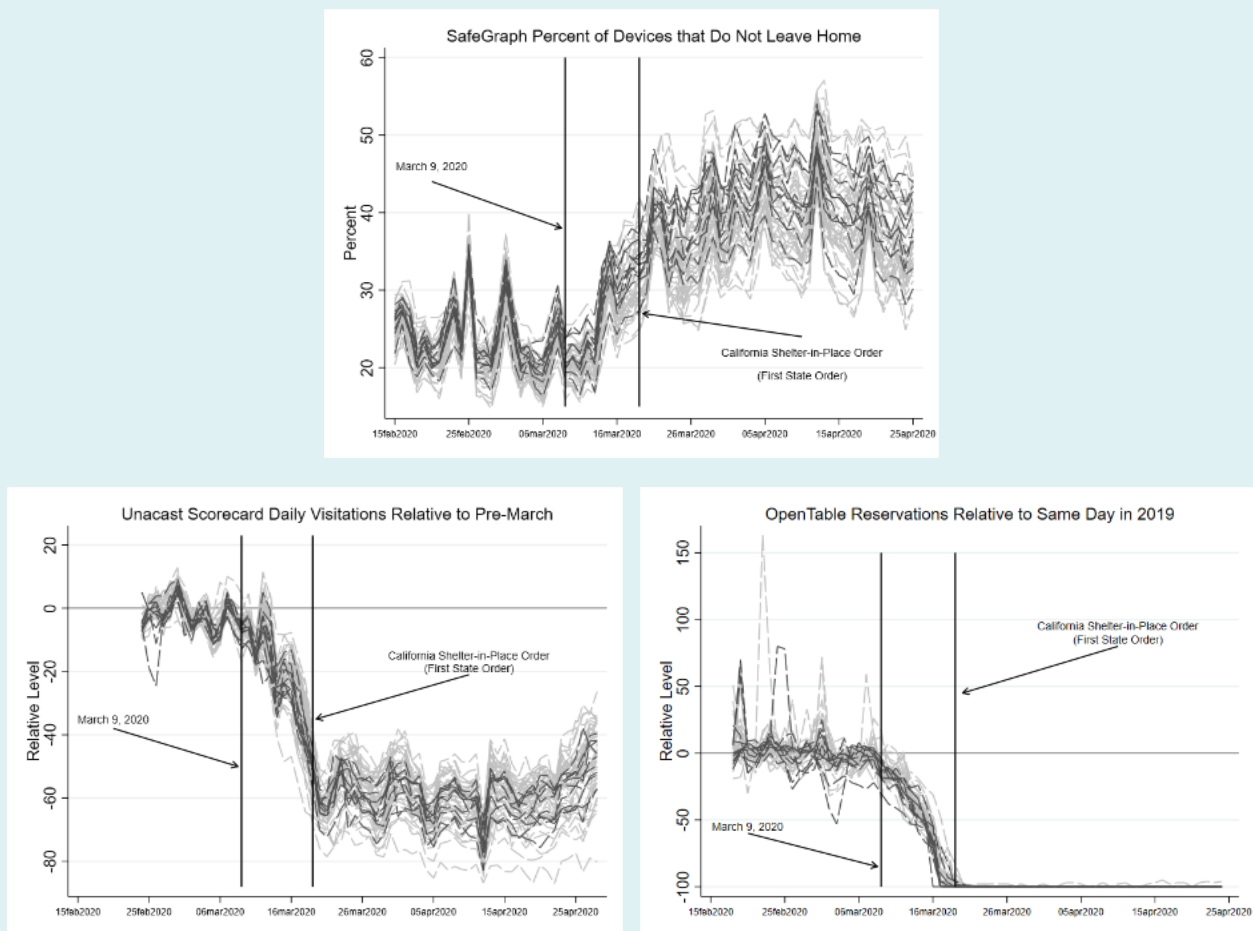
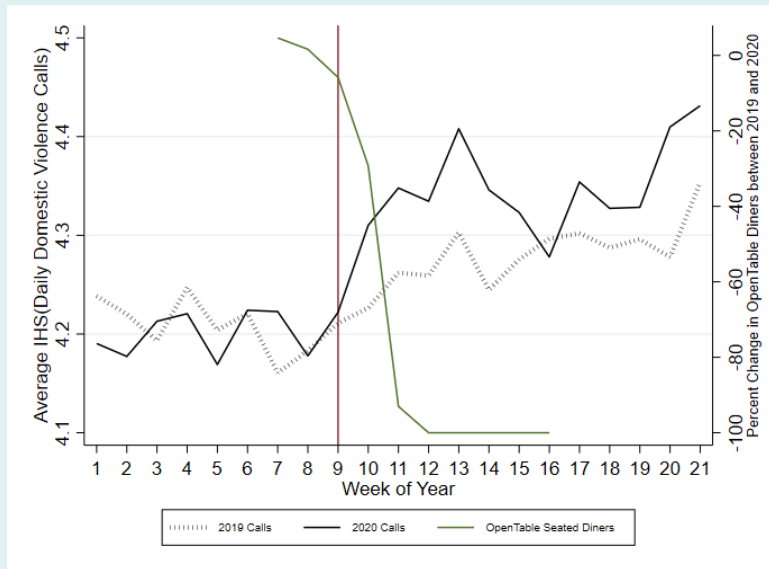


FIGURE 2

The figure plots inverse hyperbolic sine of the average number of daily domestic violence service calls across 14 cities by week of year for 2019 and 2020. The downward sloping green curve uses OpenTable data to show the percent change in the number of seated restaurant diners in 2020 compared with 2019. The vertical red line falls on the week of March 2, 2020, one week before social distancing measures became widespread.



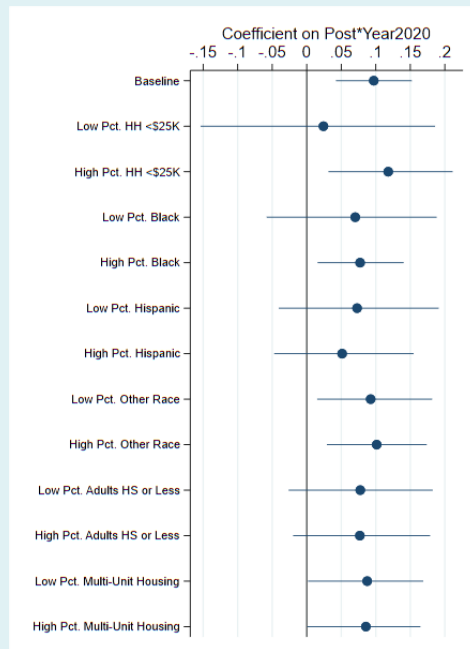
EFFECTS BY DEMOGRAPHIC GROUP, DAY OF WEEK, AND CALL HISTORY

Financial vulnerability, restructured living patterns including more time at home, unemployment, and general stress surrounding the pandemic and uncertainty about the future could all increase the incidence of domestic violence. The variation across cities in the timing and intensity of outbreaks is limited and correlated with the timing of policy interventions. Unfortunately, with the tight timing and limited number of cities, we cannot clearly decompose how much of the increase is attributable to each channel. Effects seem to be larger on weekdays compared with weekends, which is consistent with increased time at home together, especially during hours when adults may be trying to work from home and/or help children with schoolwork, playing a role.

We do not find clear evidence of different effects by neighborhood racial composition or socioeconomic status (see Figure 3). The estimated effect size for low-income areas is larger, but it's well within the margin of error for the effects in high income areas (see full paper for a more detailed exploration of heterogeneity).

FIGURE 3

The figure plots the impact of the pandemic on domestic violence calls for service during the first five weeks of widespread social distancing. Subgroup estimates are obtained by examining domestic violence calls from census tracts with the specified characteristic either above the median (“High”) or below the median (“Low”). 95 percent confidence intervals are provided.



Finally, we investigate whether the increase is driven by households with a history of domestic violence. We don't have exact address information in our data, but we do know what city blocks calls came from for some of the cities in our sample. We divide the city blocks into groups based on whether they had a domestic violence call during the previous year and compare effects in the two groups. Our estimates suggest larger effects on city blocks without a previous domestic violence call, meaning new households contribute to the overall increase that we observe.

REPORTING ISSUES

Domestic violence calls are not a perfect measure of domestic violence incidents. If victims find it more difficult to report during the pandemic because their abusers spend more time at home, then our analysis would understate the increase in domestic violence. On the other hand, third party reporting could increase due to more neighbors being at home. To test for this, we compare effects in areas with lots of multi-unit housing (where neighbors are likely to hear more through shared walls) to places with less multi-unit housing. The results for the two subgroups are nearly identical, suggesting that our findings are not just picking up an increase in reporting by neighbors. Reports from the National Domestic Violence Hotline also show that the fraction of third-party hotline calls did not change from 2019 to 2020 (National Domestic Violence Hotline, 2019, 2020). We conclude that an increase in third-party reporting is unlikely to be driving the increase in domestic violence calls.

Conclusion

Our estimates suggest that **the pandemic has led to, on average, 3.4 more domestic violence calls per city every day during the first five weeks after social distancing began**. If the entire U.S. experienced a similar increase, the result would be about 1,330 more domestic violence calls each day. The [immediate medical and productivity costs](#) and the [long-run negative impacts on earnings](#) associated with such an increase could cost society tens of millions of dollars each day (Bindler and Ketel, 2019; Aizer, 2011; Currie et al., 2018).

Given that the increase in domestic violence calls started before stay-at-home orders took effect, state-level social distancing policy may not be central to the results. On the other hand, the increase in domestic violence was at least partially reversed starting in the middle of April, coinciding with the disbursement of the majority of CARES Act stimulus checks (Chetty et al., 2020). We cannot say conclusively whether financial relief caused domestic violence rates to drop—our data also shows that social distancing compliance began to wane around the same time—but our results point to the importance of future work on this question.

REFERENCES

- Anna Aizer. Poverty, violence, and health impacts of domestic violence during pregnancy on newborn health. *Journal of Human Resources*, 46(3):518–538, 2011.
- Anna Bindler and Nadine Ketel. Scaring or scarring? labour market effects of crime victimisation. Working Paper, 2019.
- David Card and Gordon Dahl. Family violence and football: The effect of unexpected emotional cues on violent behavior. *Quarterly Journal of Economics*, 126:1–41, 2011.
- Raj Chetty, John N. Friedman, Nathaniel Hendren, Michael Stepner, and The Opportunity Insights Team. How did covid-19 and stabilization policies affect spending and employment? a new real-time economic tracker based on private sector data. NBER Working Paper No. 27431, 2020.
- Janet Currie, Michael Mueller-Smith, and Maya Rossin-Slater. Violence while in utero: The impact of assaults during pregnancy on birth outcomes. NBER Working Paper No. 24802, 2018.
- Jason Lindo, Jessamyn Schaller, and Ben Hansen. Caution! men not at work: Gender-specific labor market conditions and child maltreatment. *Journal of Public Economics*, 163:77–98, 2018.
- National Domestic Violence Hotline. 2019: A year of impact. Technical report, 2019.
- National Domestic Violence Hotline. Covid-19 special report. Technical report, 2020.
- SafeGraph. Social distancing metrics. <https://www.safegraph.com/covid-19data-consortium>, 2020. Accessed: 2 July 2020.
- Unacast. Unacast social distancing dataset. <https://www.unacast.com/data-for-good>, 2020. Accessed: 30 April 2020