

# Homelessness in a Pandemic: Evidence from GPS Data

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## Background

With many shelters shutting down and increased unemployment, the COVID-19 pandemic has had a major impact on homelessness in the United States. However, it is difficult to study how different policies impact homelessness due to a lack of data, especially on unsheltered homelessness. Most cities only attempt to count unshelterd homelessness once every two years, making it impossible to assess short term changes.

## Method

We propose a new method to count homelessness: using smartphone GPS location data to identify individuals who appear to be staying in homeless shelters or nonresidential areas. This allows us to generate estimates of sheltered and unshelterd homelessness in the US, which we can use to study how homelessness was impacted by the COVID-19 global pandemic. We then compare these estimates to two significant policies that occurred during the pandemic: shelter in place policies, and eviction moratoriums. To assess the impact of these policies, we exploit variation in the onset of shelter in place policies and quasi-random variation in the change in evictions by city.

## Results

We find that sheltered homelessness decreases around the onset of the pandemic, while unsheltered homelessness does not change. The decrease in sheltered homelessness is only weakly correlated with lockdown policies and is steadily declining throughout the pandemic. We find no correlation between either sheltered or unsheltered homelessness and eviction filings, suggesting that the expiration of eviction moratoriums did not impact our measures of homelessness in the short run. However, our measure identifies only a small subset of the total homeless population and is likely not a representative sample.

## Conclusion

While the decrease in sheltered homelessness is consistent with shelters limiting capacity to maintain social distancing, it is unclear what alternative options people are using since unsheltered homelessness did not increase. Further work is needed to understand the mechanisms behind this result, in addition to identifying a larger and more representative sample of the homeless population.

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