



COVID-19 and Crime in Chicago and Philadelphia

The COVID-19 pandemic has imprinted patterns of work and leisure across America. Efforts to limit the spread of the SARS-CoV-2 have resulted in the closure of many nonessential businesses and produced record job losses. As evidenced in mobility data, Americans are spending less time at work and recreation, and substantially more time at home. These changes in the allocation of time spent at work, recreation, and home, coupled with increased economic deprivation have impacted patterns of crime in surprising ways.

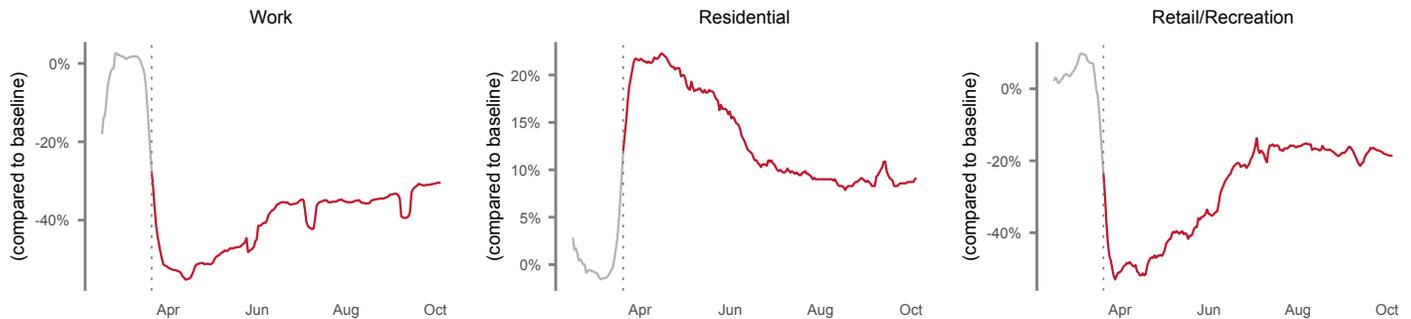
Routine activities theory in criminology holds that a crime is more likely to occur when a motivated offender finds a suitable target in the absence of capable guardianship. This intuitive theory can help us make sense of, and anticipate, patterns of crime and victimization amidst the COVID-19 pandemic.

In this report, we present data on property and violent crime rates in the major American cities of Chicago and Philadelphia. Compatible with routine activities theory, we show how crime rates decreased dramatically with the onset of social distancing measures that changed patterns of guardianship and target availability, and then show how crime rates increased steadily from this initial decline as job loss and economic pain increased the motivation to offend.

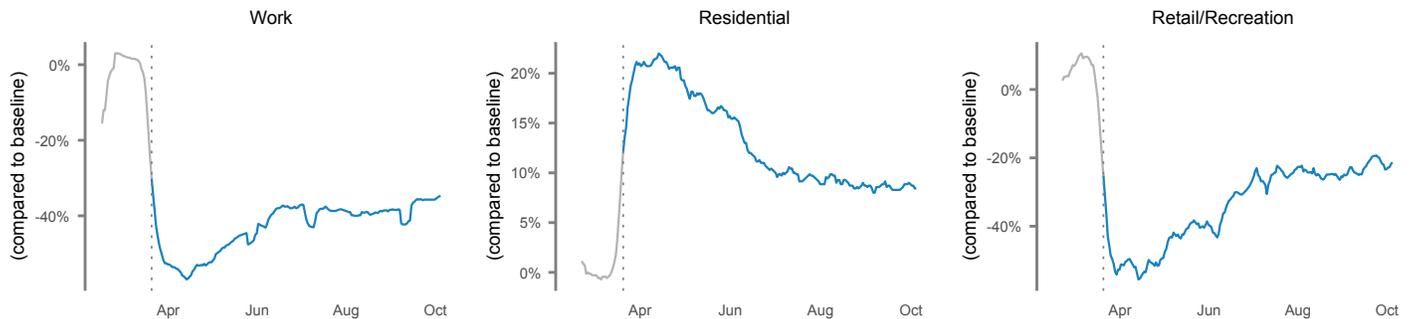
Mobility, Guardianship, and Target

Google Mobility data show that activities outside of home decreased dramatically with the timing of social distancing measures in Chicago and Philadelphia. In both Chicago (Cook County) and Philadelphia, time spent at work and in retail/recreational activities decreased by more than 40% in late March and early April as both cities enacted stay-at-home orders. Time spent at work and recreation has recovered modestly with the relaxation of social distancing measures but remain substantially below baseline. By contrast, time spent at home increased by more than 20% in late March and early April in both Chicago and Philadelphia.

Google Mobility Data for Cook County



Google Mobility Data for Philadelphia County



With these shocks to mobility, total calls for police service decreased in Philadelphia and Chicago by about 25% in April. Rates of aggravated assault decreased by about 30%. The reduction in time spent on recreational activities outside the home decreased target availability for assault.

By contrast, Chicago witnessed a 7.5% increase in domestic violence-related calls between March and April. The increase in domestic violence was largest in areas of Chicago with more married households with children, and in areas that experienced the largest increase in time spent at home (Bullinger et al, 2020). The increase in target availability within homes increased the rate of domestic violence-related calls.

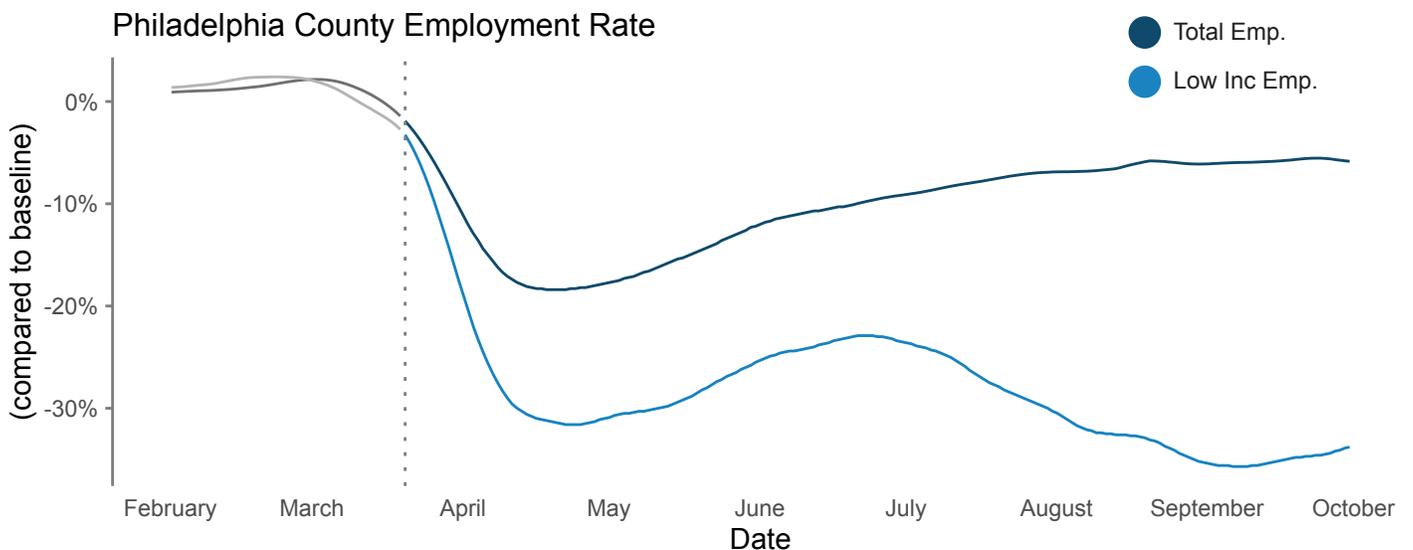
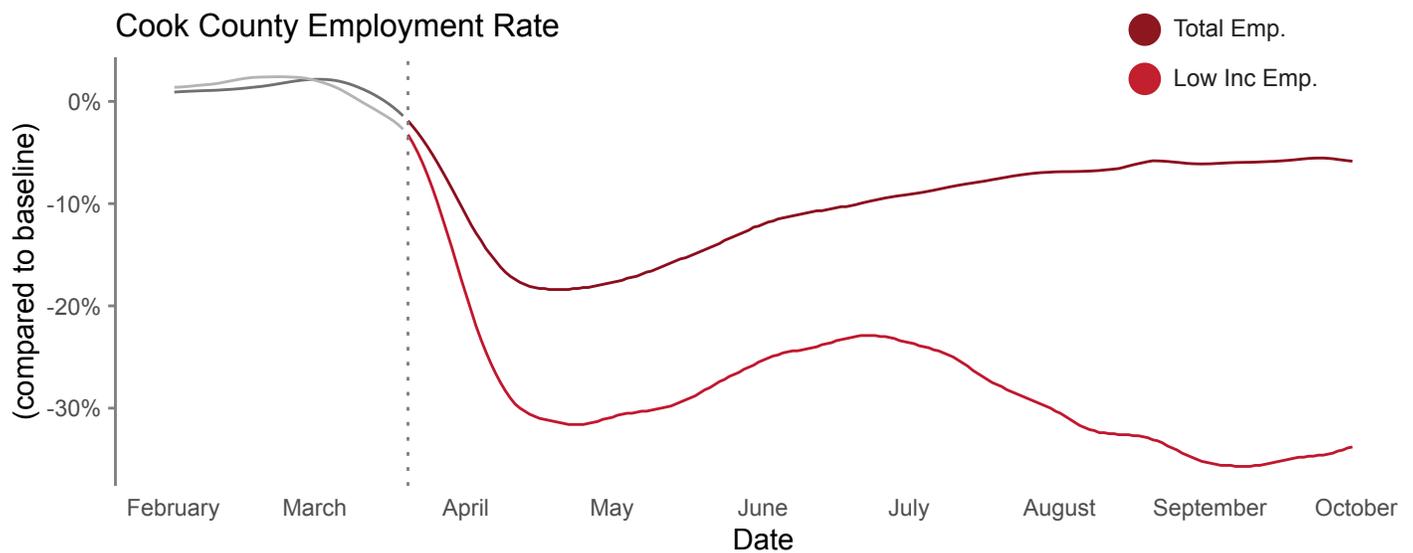
With the dramatic shift in time allocation from the workplace to home, Philadelphia witnessed a substantial reduction in residential burglaries, and an increase in non-residential burglaries. From a routine activities standpoint, this disparate movement in burglary rates is explainable by relative changes in guardianship at home and the workplace.

Job Loss and Motivation to Offend

In the 2009 recession, the reduction in consumer spending was on goods not services. Conversely, 67% of the spending reduction associated with the COVID-19 recession was on services. This reduction in spending on services has disproportionately affected lower wage workers.

In Philadelphia, total employment decreased by -13.8% from January to the end of July. For low wage workers, the employment rate decreased -21.7%. In Chicago, over the same period, total employment decreased by -5.9% and by -28.7% for lower wage workers.

Criminologists find a strong positive correlation between the unemployment rate and crime, providing evidence that economic factors increase propensities to commit crime (Yamada et al., 1993). The below plots illustrate how COVID-19 has impacted employment in Chicago and Philadelphia in recent months.

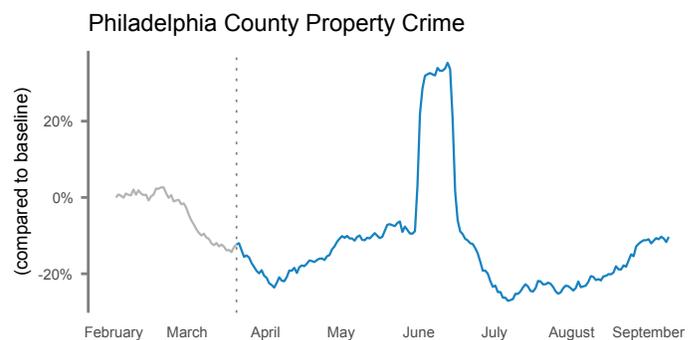
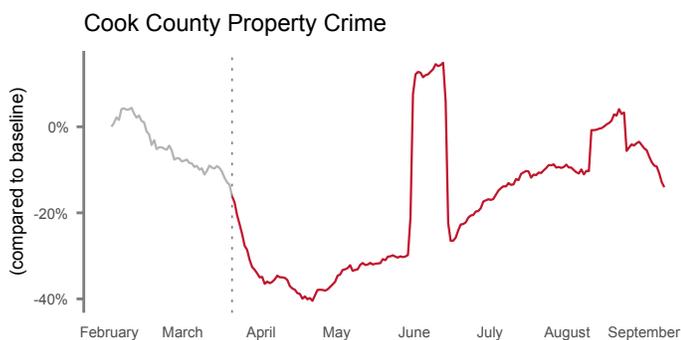
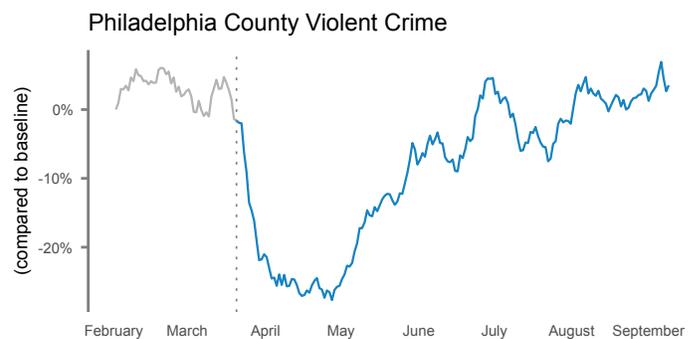
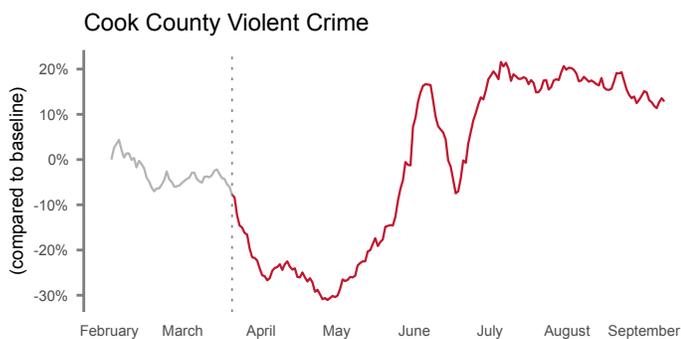


Violent and Property Crime Dynamics

While violent crime in Philadelphia and Chicago decreased initially with stay-at-home orders, both cities have witnessed a steady increase in violence coincident with the loss in employment.

In Philadelphia, both homicide and aggravated assaults with a deadly weapon have increased by 30-40% year-to-date (YTD). In Chicago, homicide reports are up by 50% in YTD comparisons with 2019, and non-lethal shooting incidents are also up by 50%. These increases in homicide are geographically concentrated in areas where lower wage workers reside, hit hardest by the COVID-19 recession.

Both violent and property crime rates in Chicago and Philadelphia increased with the lifting of stay-at-home orders and spiked dramatically with protests against police violence that swept the country at the beginning of June.



Sources

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- Yamada, Tadashi, Tetsuji Yamada, and Johan M. Kang. *Crime rate and labor market conditions: Theory and time-series evidence*. *The Economic Studies Quarterly* 44.3 (1993): 250-262.
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