

## **Progress report for Research Grants on Women, Victimization, and COVID-19**

**Title:**           **The Determinants and Aftermath of Victimization in US Households and the Implications of COVID-19<sup>1</sup>**

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**Date:**           5/25/2021

Nearly one-third of all women in the United States experiencing domestic violence in their lifetimes and victimization is even more highly concentrated among low-income and minority women (Smith et al., 2017; Currie et al., 2018). The COVID-19 pandemic increased domestic violence which may have been caused by socio-economic pressures such as job loss, housing instability, stress, and isolation (e.g., Leslie and Wilson 2020; Bullinger, Carr, Packham 2021). Understanding the context of domestic violence incidents is difficult because of data constraints. Many domestic violence incidents are not reported. And for reported incidents, it can be difficult to measure the socioeconomic environments of victims because data linkage is impossible. In this project, we are using a synthesis of unique administrative data to understand the lives of domestic violence victims.

To better understand the context of domestic violence in the U.S., we leverage the newly developed Criminal Justice Administrative Records System (CJARS), a joint project of the University of Michigan and the U.S. Census Bureau to create an integrated criminal justice data repository. CJARS collects criminal justice administrative records from state and local agencies, harmonizes them into a common national format, and then makes those records available to researchers through the Federal Statistical Research Data Centers (FSRDCs), where they can be linked at the person level with a variety of survey and administrative records held by the Census Bureau. In this project, we identify individuals charged with domestic violence offenses in the CJARS data. We can use this set to identify potential domestic violence victims and measure their socioeconomic characteristics using person-level links with administrative tax and wage records, public program participation, and Census survey microdata.

Our project has three key aims. First, we examine the discordance between survey-based and administrative-based victimization rates using CJARS and the National Crime Victimization Survey (NCVS). Second, we measure evolving socio-economic conditions of both offenders and victims in the lead-up and aftermath of Intimate Partner Victimization (IPV) by leveraging familial and annual residence (address-level) crosswalks to identify the potential victim in the incident based on observed relationships and cohabitation patterns. We have also synthesized the multitude of data sources within the FSRDCs to measure outcomes. Our final aim is to estimate the number of households at risk of domestic violence at the onset of the COVID-19 pandemic using cohabitation patterns, familial relationships, criminal histories, and economic dependency,

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<sup>1</sup> Any conclusions expressed herein are those of the authors and do not necessarily represent the views of the U.S. Census Bureau. All results were approved for release by the Disclose Review Board of the U.S. Census Bureau, authorization number CBDRB-FY21-ERD002-021.

and then track the evolving conditions of those households using the most recent tax and census data available in the FSRDCs.

In the CJARS data, we currently observe statewide court records for 13 states back as far as 1990 with coverage over time and types of charges varying across states.<sup>2</sup> We classify domestic violence offenses based on the offense description and a machine learning algorithm trained on validated offense description data from Measures for Justice. For simplicity, we focus in this report on data from the state of Michigan, where we measure over 607,000 domestic violence charges between 1994 and 2019. Domestic violence charges are predominately misdemeanors (95%) with 40% of these charges ending in dismissals, 1.4% resulting in not guilty verdicts, and 55% ending in a conviction.

Using the administrative data on charges, we calculate victimization rates for violent crime overall and intimate partner violence specifically. While the NCVS plays a critical role in quantifying the scope of victimization in the U.S., measures based on it are limited in the degree of geographic detail and may be affected by survey response behavior that could be exacerbated by the COVID-19 pandemic and stay-at-home orders. Administrative court data have drawbacks in terms of selective offense reporting and charging but they can be used for record linkage and allow measurement of granular geographies.<sup>3</sup> Thus, the comparison of these victimization rates offer complementary approaches to understanding how domestic violence is evolving in the U.S. and may be useful to leverage during unprecedented times such as during a pandemic. We find that measured violent crime victimization rates based on administrative data in Michigan are consistently 75% lower than NCVS violent victimization rates overall and 50% lower than victimization rates conditional on an offense being reported to law enforcement. For intimate partner victimization, the administrative records approach closely approximates NCVS rates over the last five years. An important caveat to this preliminary work is that NCVS represent victimization rates nationwide, which may very well be different from those in Michigan due to differences in underlying victimization or prosecuting behavior.

To the extent that we can identify likely victims of offenders observed in the administrative data, we can track outcomes at the person-level for the population. Identifying the most likely victim for these offenses relies heavily on family and residence crosswalks that we have developed using a synthesis of restricted survey and administrative microdata held by the Census Bureau. The residence crosswalk uses those data to identify address-level residences for almost all individuals in the U.S.<sup>4</sup> Relationships are then created for individuals observed coresiding at an address and are further categorized based on relationship reports observed in Census Bureau surveys, HUD housing assistance data, and tax filing and claiming behavior in IRS 1040 individual tax forms. This approach identifies population-level networks that allow us to study

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<sup>2</sup> The states include Arizona, Florida, Maryland, Michigan, Minnesota, New Jersey, North Carolina, North Dakota, Oregon, Pennsylvania, Texas, Virginia, and Wisconsin.

<sup>3</sup> As a benchmark, the FBI's Uniform Crime Reporting (UCR) program reports that 45.6% of violent crimes in 2016 were cleared by police either by arrest or exception means (e.g., the offender has died or the victim's refusal to cooperate with the prosecution).

<sup>4</sup> Individuals with either a social security number or ITIN are observed, as these are the individuals in the Census Numident and have a Protected Identification Key (PIK).

connections and map local variation in policies and the criminal justice system to impacts on victimization than would be available in commonly used household surveys such as the National Longitudinal Study of Youth (NLSY) and Panel Study of Income Dynamics (PSID).

Our ability to identify a potential victim relies on the crosswalks mentioned above; thus, a few characteristics of these crosswalks are worth mentioning. First, we are identifying perhaps more stable relationships, as they require co-residence or joint tax filing. Second, there is variation in our ability to define the nature of romantic relationships by characteristics, most notably race and age. For example, two individuals observed filing taxes together can be classified as married, while two individuals living together in a romantic relationship and unmarried would file separate taxes and can only classify as romantic if the pair was also observed in another dataset such as a Census Bureau household survey, which highlights the importance of using multiple data sources.

Among those observed in non-kin, opposite-sex adult cohabitation, 46% of White individuals and 25% of Black individuals are identified in some form of confirmed romantic relationship (Figure 1, Panel A).<sup>56</sup> Similarly, Whites have fewer average opposite-sex coresiders compared to Black individuals (2.5 vs. 3.2), and are observed living together longer on average (5 vs. 2.5 years), as shown in Figure 2, Panel B and C.<sup>7</sup> Thus, we expect our ability to identify victims and the need to correct for mismeasurement to vary by demographic subgroup.

To identify potential victims, we consider the set of non-kin, opposite-sex co-residers of confirmed domestic violence offenders observed in CJARS. In order to select the most likely victim, we filter based on residential histories temporally close to the date of the incident. Based on this approach, we are able to identify unique victims for 68% of incidents and one or more potential victims for 84.4% of incidents, as shown in Figure 2, Panel A.<sup>8</sup> For White and Black offenders, we identify unique victims for 72% and 64% of incidents, with 13% and 22% of incidents having two or more potential victims (Figure 2, Panel B). Notably, identifying more than one victim will attenuate estimates on outcomes towards zero if only one person is actually receiving the negative shock.

Once potential victims have been identified, we can measure their and their offenders socioeconomic characteristics and outcomes. We observe annual administrative tax and wage records, enrollment in HUD housing assistance programs, co-residence patterns, and criminal

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<sup>5</sup> We restrict to looking at non-kin, opposite-sex cohabitation among adults within 13 years of age of each other. Other studies also classify cohabitation between opposite-sex adults within 10-15 years of age as potentially romantic partners (e.g., Casper and Cohen 2000).

<sup>6</sup> Manning, Joyner, Hemez, and Cupka (2019) use the Current Population Survey (CPS), National Longitudinal Survey of Adolescent to Adult Health (Add Health), National Longitudinal Survey of Youth (NLSY-97), and National Survey of Family Growth (NSFG) to measure cohabitations. They find roughly 20% of respondents aged 26-28 are cohabitating at the time of interview and that 60-70% ever cohabited.

<sup>7</sup> Joyner, Manning, and Bogle (2017) estimate opposite-sex cohabiting relationships last for an average of 4.7 years using the National Longitudinal Study of Adolescent to Adult Health.

<sup>8</sup> Notably, having more than one potential victim is likely a data measurement error rather than multiple adult victims in an observed incident.

justice events (e.g., other convictions and incarcerations spells) along with snapshots from Census Bureau surveys that include detailed information on education, employment, and health insurance. The newly created panel dataset we use to measure outcomes consistently from 1998 to 2019 enables us to study how socioeconomic contexts evolve prior to and after domestic victimization incidents.

Finally, one of our goals with this project was to link self-reported victimization data from the National Crime Victimization Survey (NCVS) to the CJARS data in order to identify how victim and offender populations overlap physically. We were not able to complete this part of the proposal because the approval process with the Bureau of Justice Statistics (BJS), who control access to the restricted NCVS microdata in the FSRDCs, is still ongoing.

## References

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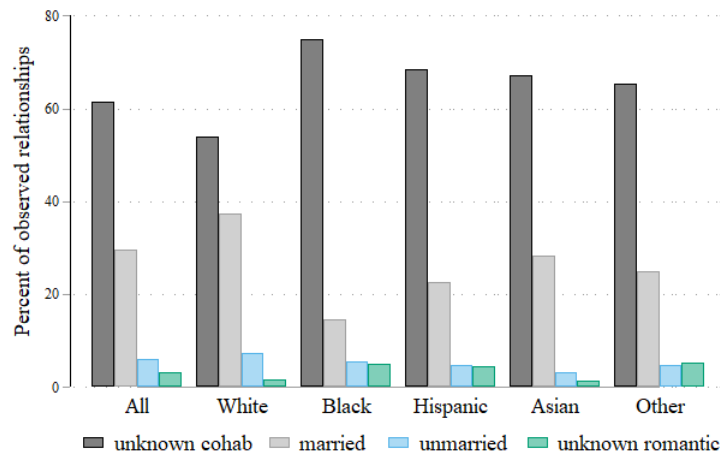
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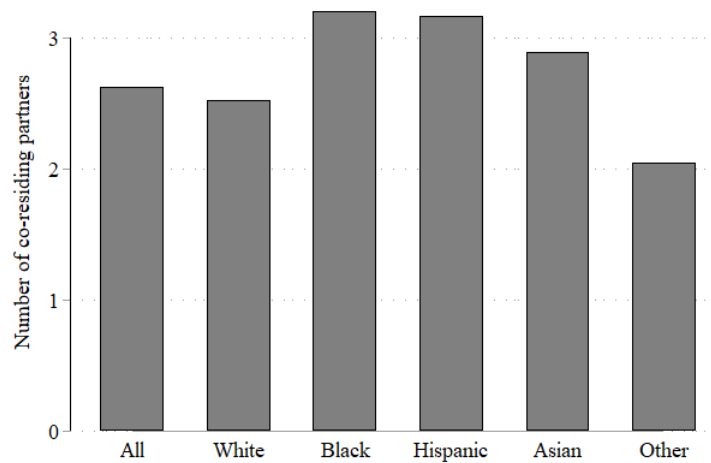
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Figure 1: Observed romantic partners by race

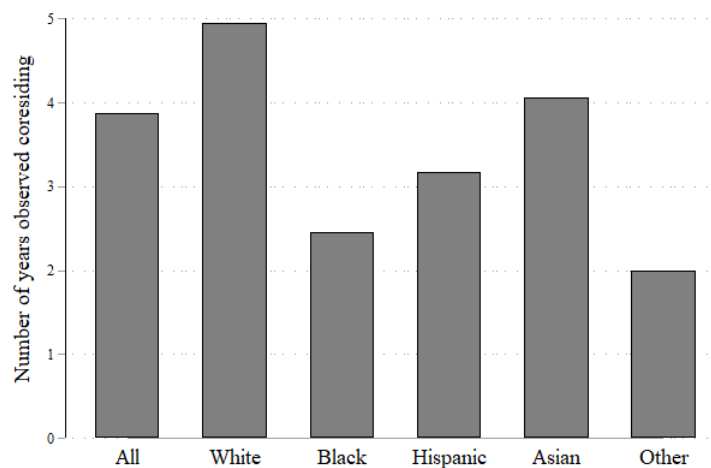
(a) relationship type



(b) number of partners observed



(c) number of years observed coresiding

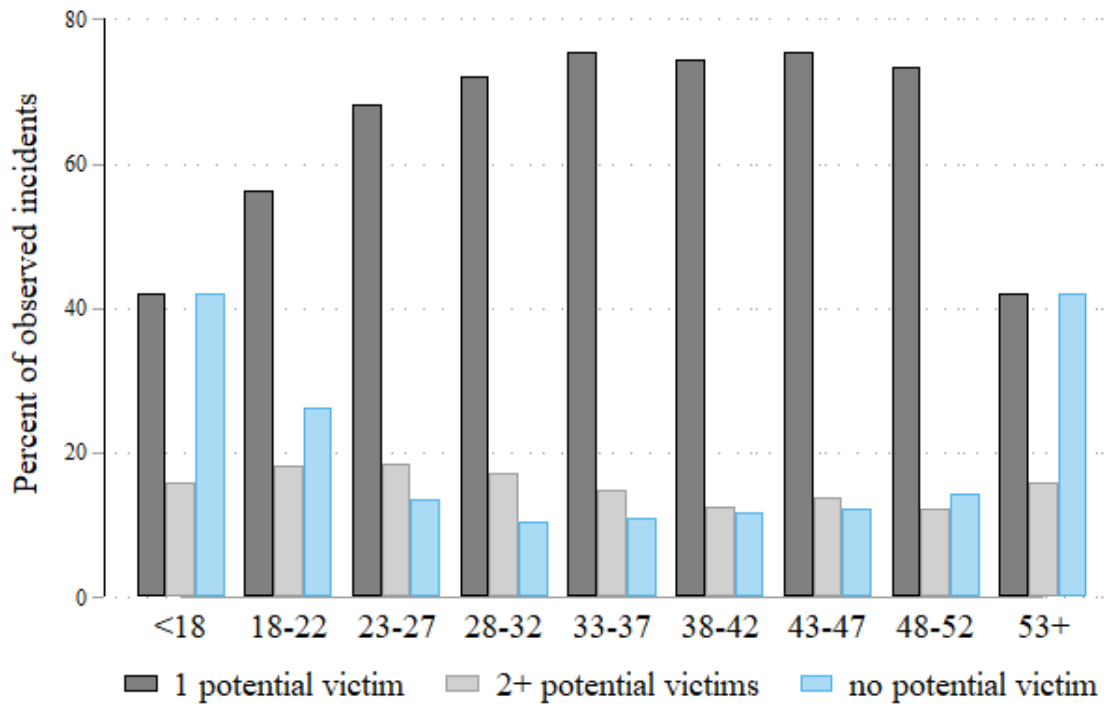


Source: Calculations are based on the CJARS relationship crosswalk, sourced from IRS 1040 tax forms, public program data, and survey microdata, and the Census Numident.

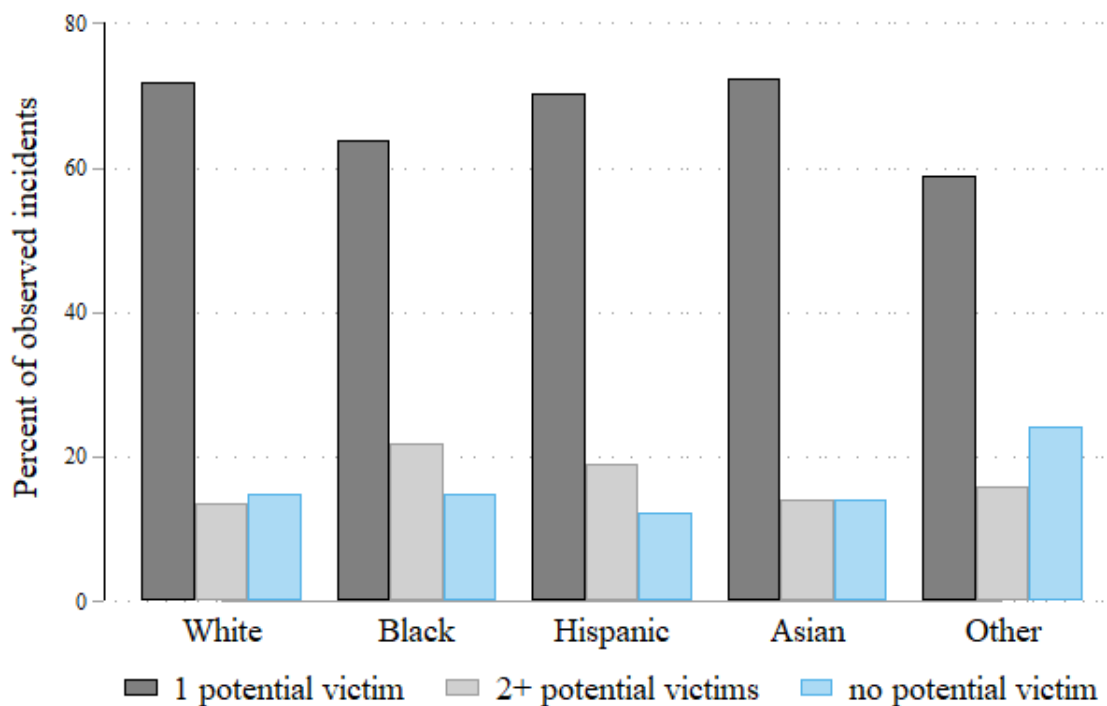
Notes: The sample consists of individuals in the Census Numident born between 1960 and 2001. Race is measured using the Census Numident, where other race includes Native American, other, and missing. Unknown cohabitation includes opposite-sex adults (18+) within 13 years of age coresiding with an unknown relationship. Married, unmarried romantic, and romantic unknown are classified based on information in the crosswalk source files. All results were approved for release by the Disclose Review Board of the U.S. Census Bureau, authorization number CBDRB-FY21-ERD002-021.

Figure 2: Identifying potential victims

(a) by age



(b) by race



Source: Calculations are based on criminal justice events measured in CJARS, vintage 2021Q1, the CJARS relationship and residence crosswalk, sourced from IRS 1040 tax forms, public program data, and survey microdata, and the Census Numident. Notes: The sample consists of domestic violence offenders with court charges between 2000 and 2015 in Michigan, who were born between 1960 and 2001. An observation is an offender-incident, where the first observed incident in the date range is used if the offender has more than one observed domestic violence incident. Potential victims are identified by relationship type and coresidence patterns with the offender established by the CJARS crosswalks. For age groups (Panel A) and racial groups (Panel B), the share of offenders classified with one potential victim, 2 or more potential victims, or no potential victims identified is reported. Age and race of the offender are measured using the Census Numident, where other race includes Native American, other, and missing. All results were approved for release by the Disclose Review Board of the U.S. Census Bureau, authorization number CBDRB-FY21-ERD002-021.