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DOES THE CERTAINTY OF ARREST REDUCE DOMESTIC VIOLENCE? EVIDENCE  
FROM MANDATORY AND RECOMMENDED ARREST LAWS

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Does the Certainty of Arrest Reduce Domestic Violence? Evidence from Mandatory and Recommended Arrest laws  
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**ABSTRACT**

Domestic violence remains a major public policy concern despite two decades of policy intervention. To eliminate police inaction in response to domestic violence, many states have passed mandatory arrest laws, which require the police to arrest abusers when a domestic violence incident is reported. These laws were justified by a randomized experiment in Minnesota which found that arrests reduced future violence. This experiment was conducted during a time period when arrest was optional. Using the FBI Supplementary Homicide Reports, I find mandatory arrest laws actually increased intimate partner homicides. I hypothesize that this increase in homicides is due to decreased reporting. I investigate validity of this reporting hypothesis by examining the effect of mandatory arrest laws on family homicides where the victim is less often responsible for reporting. For family homicides, mandatory arrest laws appear to reduce the number of homicides. This study therefore provides evidence that these laws may have perverse effects on intimate partner violence, harming the very people they seek to help.

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## I. INTRODUCTION

Women are more likely to be beaten, raped, or killed by a current or former male partner than by anyone else (Epstein, 1999). Despite two decades of increased public awareness, domestic violence remains a serious public policy issue in the United States. States, faced with increased liability for police inaction in the mid-eighties to late-nineties, passed laws requiring the warrantless arrests of individuals police believe to be responsible for misdemeanor assault of an intimate partner. Many of these policies were justified by results from a randomized experiment that demonstrated that arrests were effective at deterring future violence. This experiment was extended to support mandating arrest in all cases of domestic violence. However, the experiment provided no evidence on the effectiveness of a public policy *requiring* arrest. Policies which mandate arrest (i.e. make arrests certain, conditional on reporting) may have a different result from experiments which probabilistically apply arrest. Indeed the empirical analysis presented in this paper demonstrates that mandatory arrest laws increase intimate partner homicides. One reason for this is that a known policy of arrest may affect the decision by victims to seek police intervention making the application of experimental results to the public policy of required arrests inappropriate. In particular, it appears that the certainty of arrest dissuades victims from reporting abuse to the police resulting in higher rates of intimate partner abuse.

Using a difference-in-difference framework, I tested to see if mandatory arrest laws affected the level of domestic violence. I found that intimate partner homicides increased by about 60 percent in states with mandatory arrest laws. These results may be due to changes in the reporting behavior of victims in response to the certainty of arrest. Because police intervention may decrease the risk of escalation and thus the risk of homicides, this rise in homicide rates is consistent with a decline in reporting for intimate partner homicides. Results from a similar analysis of non-intimate partner family member homicides show declines in these homicides in response to mandatory arrest laws. These results are also consistent with the reporting explanation. In most cases of child abuse, the reporting of abuse comes from a third party (such as a teacher or doctor). In such cases the certainty of arrest does not shift the incentives of the third party to report, and as such we would expect to see a deterrence effect from arrest. Thus, the declines in familial homicides represent evidence consistent with the

theory that a decline in reporting by victims may be responsible for the perverse effects of mandatory arrest laws.

This study attempts to provide a careful evaluation of a public policy that currently enjoys both popular and financial support. This enhanced understanding of the full range effects generated by arrest laws for domestic abuse will hopefully be useful in constructing a more effective criminal justice response to domestic violence. This paper also highlights an important consideration for policy makers; criminal justice policies aimed at deterring violence must concern themselves with both the probability of detection and the actual penalty enhancement. Laws like mandatory arrest laws may fail if the responsiveness of victims to incentives generated by these policies is larger than the response of criminals to the cost of the new penalty. Thus, increasing criminal sanctions without concern for the impact on the probability of detection may generate perverse outcomes from public policy. In addition, because of the powerful role the empirical social science research played in the case of this policy, this study provides a cautionary tale about using experimental results to justify new policies. The misapplication of experiments without concern for the ways in which policies might deviate from experiments may result in government programs that become counterproductive, harming the very people they seek to help.

## II. THE EMERGENCE OF MANDATORY ARREST LAWS FOR INTIMATE PARTNER VIOLENCE

Policies that encourage or require arrest of domestic abusers play a prominent role in the government's attempt to combat domestic violence. This is in part because the criminalization of domestic violence represented the major shift in the acceptance and treatment of domestic violence and in part because arrest laws represent a transparent mechanism by which the government can enforce anti-violence statutes.

The criminal justice response to intimate partner violence has been codified in many jurisdictions through policies which encourage or mandate the arrest of individuals who commit domestic abuse. Currently, fourteen states and the District of Columbia have passed mandatory arrest laws. These laws require police to arrest a suspect without a warrant, if there is probable cause to suspect that an individual has committed some form of assault (either misdemeanor or felonious) against an intimate partner or family member. An additional eight states have

recommended arrest laws, which specify arrest as a recommended but not required when confronted with probable cause that an intimate partner or familial assault has occurred. States in both of these groups are reported in Table 1.

[TABLE 1 ABOUT HERE]

To begin an evaluation of arrest laws for domestic abuse, it is first necessary to establish why these laws were initially passed. Mandatory arrest laws appear to have been passed largely in response to a court decision in Connecticut as well as what many took to be empirical support for arrest from a randomized experiment. Nevertheless, we might be skeptical of any subsequent analysis attempting to establish the causal effect of arrest laws on domestic violence if these laws were passed in response to a rising trend in domestic violence levels. This does not appear to be the case.

Historically, law enforcement has been reluctant to arrest or even intervene in cases of domestic violence. In fact in the 1970s, the American Bar Association (1973) urged police to use conflict resolution, not arrests, when intervening in “conflicts...which occur between husband and wife.” In the early eighties this began to change as attitudes towards domestic violence changed. Increasingly, there was political pressure for states to offer more protection for victims of domestic violence.<sup>1</sup> Moreover, there was a shift in the medical opinion regarding the dangers posed to victims of domestic violence. For instance, the American Medical Association began to advise its member that counseling was dangerous and increased its efforts to educate its member about the harms of domestic violence.

The emergence of mandatory arrest laws occurred within this environment, largely prompted by two events. First, *Thurman v. City of Torrington* (1984) a law suit in Connecticut established the right to police protection from domestic violence.<sup>2</sup> Threats of future law suits

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<sup>1</sup> In 1984, the U.S. Attorney General established domestic violence as a crime by ordering all criminal justice agencies to treat it as such. In the same year, Congress passed the Family Violence Prevention and Services Act, which funded some domestic violence programs (for shelters, counseling, research, and training of law enforcement agencies). Also in 1984, the Victims of Crime Act allocated \$150 million for grant aid to survivors of crimes. Priority for this grant aid was given to victims of domestic violence, sexual assault, and child abuse (Brooks, 1997).

<sup>2</sup> In 1984, Tracey Thurman, a battered woman was awarded 2.3 million dollars in damages from the city of Torrington, Connecticut. The Torrington Police failed to intervene in Thurman’s domestic dispute despite her frequent calls for help resulting in severe injuries and permanent paralysis for Ms. Thurman. This decision signaled a shift in legal liability where not only individual officers but also police departments could be held liable for failure

served as motivation for municipalities to protect themselves from liability issues by implementing more aggressive arrest policies.<sup>3</sup> The establishment of police liability in domestic violence cases, created the desire to monitor and regulate police enforcement of restraining orders and intervention in violent incidents. A natural means to do this was the removal of police discretion through a policy which mandated arrest. However, arrest policies might not have been so widely adopted had it not been for the second event—the Minnesota Domestic Violence Experiment. The results of this experiment were used by US Department of Justice, academics, legislators, and criminal justice spokespersons to justify and support mandatory arrest policies (Mignon et. al., 1995).<sup>4</sup>For example, the Violence Against Women Act (1994) used the results from this experiment to justify grants and funds to support pro-arrest policies in various states.<sup>5</sup> This change in funding and availability of training encouraged several more states to pass mandatory arrest laws

The use of mandatory arrest laws was thus in many respects predicated on the results of the Minnesota Domestic Violence Experiment (MDVE). This experiment, funded by the Minnesota Police Department, the Police Foundation, and the Department of Justice, was run by randomly assigned a police response to domestic violence calls (Wanless, 1996). Police applied one of three possible treatments: (1) advising and counseling the couple, (2) separating the individuals, or (3) arresting the suspect. Researchers then interviewed the victims shortly after police involvement and then followed up every two weeks for six months. The original results found that arresting the suspect resulted in substantially less future violence than did either advising or counseling (Sherman, 1992).<sup>6</sup> An in depth evaluation of the results by Tauchen and Witte (1995) found that arrest resulted in significantly more deterrence than either advising or

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to protect battered women. Twenty-four police officers, as well as the City of Torrington were held accountable for their failure to intervene (Sparks, 1997).

<sup>3</sup> Although *Thurman v. Torrington* is certainly the most famous case establishing the right to police protection from domestic violence, several other states also found police departments liable for failing to protect battered women (Heise, 1992). The first class action lawsuit, *Scott v. Hart*, No. C-76-2395, was filed against the Oakland, California city police in 1976. Two months later, in *Bruno v. Codd*, 396 N.Y.S.2d 974 (Sup. Ct. Special Term 1977), found police liable for failure to comply with state laws regarding domestic violence. In 1985, *Sorichetti v. City of New York* held police liable for failing to investigate and enforce violations of orders of protection. See Bracher (1996) for a discussion of these cases. For a more detailed discussion on the legislative history of mandatory arrest laws, see Buzawa and Buzawa (1996) and Stark (1993).

<sup>4</sup> While the results from the experiment formed the justification for many pro-arrest policies, the authors and other experts cautioned against generalizing from these findings.

<sup>5</sup> Currently, the Violence Against Women Office at the Department of Justice spends between \$30 to 50 million each year on grants to encourage these mandatory arrest laws.

<sup>6</sup> Further replications of the MDVE in Milwaukee, Omaha, Colorado Springs and Charlotte have produced mixed results. For a comparison of these experiments, see Symposium on Domestic Violence, 1992.

separating the couple, consistent with the original findings of the experiment. However, unlike the original findings, Tauchen and Witte use a dynamic setting which found that most of the deterrent effect of arrest occurs within two weeks of the initial arrest. Thus, any deterrent effect that exists is highly transitory.

While this experiment provided support for the contention that arrest deters abuse, the applicability of the findings is uncertain. The public in general and battered women in particular were not informed of this experiment. Thus, the experiment actually tested the effect of a probabilistic arrest rather than a deterministic policy which requires arrest. This difference is significant because of behavioral differences that may arise in an ongoing nature of the relationship between the battered women and their abusers. A noteworthy difference between a mandatory arrest policy and the MDVE is the potential response by battered women to the certainty of an arrest of their abuser. The response by batterers relative to the response by victims to the increased costs of abuse may be relevant when determining the efficacy of an intervention such as mandatory arrest laws.

Thus, while a full discussion of the political economy of the emergence of domestic violence laws is beyond the scope of this paper, the motivation of most of these arrest laws does not appear to have been the level of intimate partner violence. In a detailed analysis of the motivations for mandatory arrest laws, Stark (1993) states that the most important reason for passing mandatory arrest laws was controlling police behavior in response to political pressure and liability exposure. Reducing the level of violence was actually only of distant concern after the desire to stop immediately violence and avoid liability from inaction. Additionally, in as much as public pressure existed regarding the passage of these laws, this pressure was not due to the level of violence but rather perceived government treatment of offenders. For example, Buzawa and Buzawa (1993) argue that alternative reforms (such as mediation) were dismissed by inappropriate or sexist as American society became more conservative and punitive towards offenders. Thus, while these laws were not passed as parts of omnibus “tough on crime” legislation, they represent the desire to adopt a more punitive approach to crime. Finally, the timing of arrest law passages appears to be tied to both the publication of the MDVE results, the promotion of these results by the Justice department in subsequent years, and finally federal

funding of these policies after 1994.<sup>7</sup> Thus, these laws appear to be at least plausibly exogenous and useful means of identifying the effects of the certainty of arrest on intimate partner violence.

### III. QUASI-EXPERIMENTAL ESTIMATES ON THE EFFECTIVENESS OF MANDATING ARREST

To test the effectiveness of mandatory arrest laws, I consider the effect of these laws on intimate partner abuse. This requires special attention to the total number of incidents of domestic violence not simply the number of reported incidents because the fraction of incidents that are reported to the police is potentially affected by this policy.<sup>8</sup> If I cannot observe unreported incidents, changes in the number of reported incidents and change in the total number of incidents (both reported and unreported) are observationally equivalent.<sup>9</sup> In part because I can observe victim-offender relationship and in part because these crimes are almost perfectly reported, I use measure of intimate partner homicides as a way to measure intimate partner abuse. Assuming that police intervention can reduce the probability of violence changes in the intimate partner homicide measure may provide insight into the impact of mandatory arrest laws on intimate partner violence.<sup>10</sup>

To illustrate how changes in the level of homicides can be linked to the total number of abusive incidents, consider a model where with some small probability,  $p$ , domestic abuse escalates to murder. For  $n$  intimate partner incidents, the number of homicides in a jurisdiction is then  $pn$ . Next, suppose that the probability of reporting given violence decreases in after the passage of mandatory arrest laws. This failure to report to the police can increase the rate of intimate partner homicide in two ways. First, police presence, regardless of the police response, can disrupt a violent incident keeping the violence level below a certain threshold. Thus, the

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<sup>7</sup> For further discussion of this, see Gelles (1993) which describes the rapidity of the law changes and the timing of various changes and law/policy changes at the city and state level.

<sup>8</sup> The National Incident Based Reporting System which does provide identification of the victim-offender relationships is therefore ill-suited to the purposes of this study. Because the NIBRS is comprised solely of reported incidents, analysis of this data is not useful for measuring the true incidence of domestic violence.

<sup>9</sup> An ideal data source for this type of analysis would be the National Crime Victimization Survey (NCVS) with state level identifiers. Although previous researchers were able to access geo-coded versions of this data (see for example Farmer and Tiefenthaler, 2003), recent changes in the administration and management of the NCVS make such access no longer possible. Some analysis using this data previous obtained suggests that mandatory arrest laws may reduce intimate partner violence but also reduce the number of cases which are reported in the system. (Dugan, 2003). Additional information about reasons why NCVS access is no longer possible is available upon request.

<sup>10</sup> The linkage between misdemeanor assault prevalence and intimate partner homicide is well established. See for example Gwinn and O'Dell (1993). Moreover the underlying causes are linked see Mercy and Saltzman (1989)

victim's decision not to notify the police may face an increased  $p$ . Second, if arrest, conditional on reporting, deters violence, then the reduction in reporting also reduces the number of arrests which reduces the deterrence effect. Thus, the decision not to notify the police increases  $n$  relative to a situation where the police are called. We would therefore expect intimate partner homicides to be associated with changes in reporting rates even though homicides themselves are not reported by the victim.

To construct a dataset of intimate partner homicides, I use the FBI Uniform Crime Reports, Supplementary Homicide Reports which provide data for all homicides that took place in the years 1976 to 2003 in all 50 states and the District of Columbia with additional descriptive variables about the victim, offender, and the nature of the crime. I define an intimate partner homicide to include any homicide committed against a husband, wife, common-law husband, common-law wife, ex-husband, or ex-wife.<sup>11</sup> While the specific coverage of arrest laws varies by state, the general categories and their proportion of the overall number of homicides are listed in Table 2. The data are constructed at the incident level with about 6.5 percent of the sample (36,442 observations) being intimate partner homicides.<sup>12</sup> I constructed a count of the number of relevant homicides by aggregating the incidents of intimate partner homicide, as defined above, in a given state for each year from 1976 until 2003. I also aggregated the number of intimate partner homicides by the race of the victim and offender and by sex of the victim and offender. Estimates are then scaled using census estimates for state population.<sup>13</sup>

[TABLE 2 ABOUT HERE]

A plot of the trend in various types of homicides before and after mandatory arrest laws, suggests that these laws may have had a significant impact on intimate partner abuse. Figure 1

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<sup>11</sup> The specific coverage of each law is reported in the legal appendix.

<sup>12</sup> There is some measurement error in victim-offender relationship variable. About 1.25% of female victims reported as having a relationship to their offender that would imply she's a man and about .43% of male victims reported as having a relationship to their offender that would imply he's a woman. Together these account for about 200 observations and less than 1 percent of the total sample. This is due to the classification of multiple homicides. In multiple victim homicides the first victim-offender relationship is recorded for all of the victims. Because the selection of the "first" victim tends to be arbitrary and this constitutes a very small fraction of the overall sample, these cases are excluded from analysis.

<sup>13</sup> This scaling by population seems the appropriate deflator as arrest laws often apply to unmarried couples however, the subsequent analysis has been repeated with number of married couples with little qualitative effect on the coefficients.

shows the rate of intimate partner and family homicide rates as a function of time since the arrest law change. There appears to be a discrete increase of about 0.4 intimate partner homicides per 100,000. There is only a small decline in the number of family violence homicides. In contrast, Figure 2 shows that recommended arrest laws have relatively little effect on intimate partner or familial homicides. Similarly, figure 3 shows no effect on uncovered homicides in states with either recommended or mandatory arrest laws.

[FIGURE 1 ABOUT HERE]

[FIGURE 2 ABOUT HERE]

[FIGURE 3 ABOUT HERE]

Comparing intimate partner homicides in states with and without arrest laws before and after the passage of these laws, I estimate a linear regression of the impact of mandatory arrest laws on the number of intimate partner homicides per 100,000 inhabitants. Column (1) of Table 3 reports some coefficients from this regression. The *mandatory arrest effect* variable is defined as 1 in states that passed mandatory arrest laws in the years after the law was passed. Similarly, *recommended arrest effect* variable equals 1 in states that passed recommended arrest laws in the years after the law was passed. The results suggest that mandatory arrest laws are responsible for an additional 0.8 murders per 100,000 people. This corresponds to a 54 percent increase in intimate partner homicides. There does not appear to be a significant effect in recommended arrest law states, although the coefficient is negative it is measured relatively imprecisely. Estimates in columns (2) and (3) of table 3, control for some other state characteristics and correlates of crime rates. To measure unemployment I used the average annual state unemployment rate derived from the Current Population Survey. To measure the violent crime rate, I used the number of rape, robbery, and assault crime reports per 100,000 people from the FBI's Uniform Crime Reports. Column (2) of Table 3 reports these results. There appears to be little effect of these limited covariates on the mandatory arrest law effect.

[TABLE 3 ABOUT HERE]

Column (3) of Table 3 includes a more rich set of covariates including state-year level variables on demographics, economic conditions and social policies. Demographic covariates include demographic controls (such as fraction of population that is black, fraction of the population that is white) as well as share of prison population in the state that is aged under 20, 20-35, 35-49 and 50 or older. In addition to the unemployment rate used in the previous specification, I include economic covariates of crime such as state-year average log personal income and male-female employment ratio. Finally, the state social policy controls which are related to crime generally include whether the state has the death penalty and the AFDC/TANF max for a family of 3. I also included a control for when the state passed unilateral divorce laws based on Stevenson and Wolfers (2006). After including these covariates, the coefficient on the effect of mandatory arrest laws on intimate partner homicides shrinks to about 0.76, which is slightly smaller but similar in magnitude to the estimates from previous specification.

Columns (6) and (7) report results from a count model estimate of the parsimonious specification and full set of controls specification respectively. The count model estimates use a poisson likelihood function with robust standard errors. The results in column (6) for the mandatory arrest law effect are nearly half the size of the corresponding OLS estimates. The coefficient in the model which includes the full set of controls (column 7) is about two-thirds the size of the similar OLS estimate. Nevertheless, the coefficient remains positive and significant, suggesting an effect of about 35 percent.

To estimate the effect of the adoption of these laws over time, the specifications reported in column (4) includes a time since law change interaction effect. Combined with the year fixed effects this both controls for any differences at a given point in time (year fixed effect) as well as differences generated from the duration of the law (years since law change). The main effect of mandatory arrest laws corresponds to the effect of mandatory arrest laws in the initial year of passage. This effect is about half the size of previously estimated effect and insignificant. However, while the effect in the initial year is not significantly different than zero, the effect in the second year (the mandatory arrest law main effect plus the 1 year post-law change effect) is about .7 and is significant with a p-value of 0.02. The total law effect in later years is similarly significant (although the 2 years post-law effect is significantly only at the 10 percent level) and there does not appear to be a significantly different effect of these laws over time.

Because mandatory arrest laws were an important means by which domestic violence became represented and treated as a criminal justice issue (as compared to a family or community problem), we might be concerned that these laws will have a disparate impact on communities which have greater mistrust of the criminal justice system. In particular, some studies have shown that African American women may be especially reluctant to report crimes to the police, preferring instead to handle instances within their own communities.<sup>14</sup> To evaluate the effect on different subgroups of interest, columns (2), (3), and (4) of Table 4 compare the effect of mandatory arrest laws on intimate partner homicides committed between White couples, African-American couples and Asian couples respectively. There appears to be no significant difference in the response of white and black couples and there appears to be only a small effect of these arrest laws on homicides in Asian couples. This give provides some evidence that the negative effect of mandatory arrest laws is not due to a disproportionately strong response in particular communities.

[TABLE 4 ABOUT HERE]

Thus far I have given little attention to the question of fault when constructing these counts. This is relevant because the intimate partner homicide count used thus far likely includes some homicides which are eventually (but not initially) classified as self-defense or justifiable. While I cannot identify “self-defense” killings from murders, homicides of males by their female intimate partner may more closely approximate the subset of cases for which self-defense is a plausible future classification. Column (5) of table 4 presents estimate of intimate partner homicides with only female victims killed by male intimate partners. Column (6) presents estimates of intimate partner homicides committed by females against male intimate partners. Intimate partner homicides of females increase about 50 percent, a similar percent increase to the main, unrestricted estimate (presented in column 1 of Table 4). In contrast, homicides of males by their female intimate partners are not significantly affected by mandatory arrest laws.

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<sup>14</sup> This point is highly contested. Evidence from the National Crime Victimization Survey suggests that African American women report intimate partner violence at higher rates than do their white or Asian counterparts (see for example Rennison, 2001). However, surveys and outreach workers cite general mistrust of the police, mistreatment of the police and concerns that reporting will send partners with criminal records back to prison as reasons why under-reporting may be more prevalent in African American communities (see Hampton, Oliver, and Magarian, 2003; Bobbit and Williams, 2006)

Overall, this suggests that most of the effect is likely driven by the response of women in abusive situations to the law change. This evidence is consistent with studies that suggest that battered women who kill their husbands do so more often when they have fewer extra-legal opportunities.<sup>15</sup> As a result, these homicides may be less responsive to changes in women’s opportunities within the criminal justice system (such as arrest law policies).

In an effort to verify the difference-in-difference framework, I test the effect of mandatory arrest laws on various sets of uncovered homicides. If the difference-in-difference estimates find a significant effect of mandatory arrest laws on homicides between individuals who should be unaffected by domestic and family violence laws, then it is likely the differences identified above may be unrelated to the passage of these laws.

For the purposes of these falsification tests, I define a class of homicides called “other homicides” which includes homicides committed against employees, employers, friends, other known individuals, and strangers.<sup>16</sup> These homicides should be unaffected by mandatory arrest laws. I estimate two specifications, one with only state and year fixed effects, and one with the full set of covariates described above. The results from these regressions are reported in Table 5, columns (1) and (2). In both specifications, neither mandatory arrest laws nor recommended arrest laws have a significant effect on the homicide level of uncovered homicides. To more closely approximate the homicides of females, I also estimate these two specifications on a count of “other homicides” which have female victims. The results from these two regressions are reported in columns (3) and (4) of Table 5 and again, there appears to be no significant effect of these laws on homicide rates. Finally, I test the effect of arrest laws on intimate and familial homicides which are uncovered by arrest laws. These include homicides committed by boyfriends, girlfriends, homosexual partners, and non-nuclear family relatives. The results are reported in columns (5) and (6) of Table 5. These results suggest that there is no significant effect of these laws on uncovered homicides.

[TABLE 5 ABOUT HERE]

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<sup>15</sup> See for example O’Keefe (1997) This is also consistent with evidence that finds female perpetrated abuse is affected not by criminal justice options but by outside extra-legal resources (e.g. shelters) (Browne and Williams (1989).

<sup>16</sup> I have excluded homicides committed by individuals of “unknown relationship.” While it is likely that these homicides were not committed by immediate family members or intimate partners, it is was not possible to estimate the subset of these homicides that would be covered and thus all are excluded. For additional information on this point see the data appendix

#### IV. REPORTING BEHAVIOR AND THE UNINTENDED CONSEQUENCES OF ARREST LAWS

The quasi-experimental results presented in this study appear to conflict with the findings of the MDVE. The conflict can be explained by recognizing that the MDVE actually estimated the effect of an actual arrest conditional on reporting while the estimates presented in this study estimate the unconditional effect of the certainty of arrest. The MDVE held constant the probability of reporting given violence because all cases in the experiment required an initial report of domestic abuse to the police. Thus, the MDVE estimated the effect of a decrease in the utility to batterers when they abuse and are reported on that abuser's probability of choosing violence in the future. Unfortunately, if the victim bears the full incidence of the increased cost of the increased penalty, then the overall effect of these laws on abuse is theoretically ambiguous (and empirically these laws appear to increase levels of abuse).

In the case of domestic violence, victims may bear the costs of an increased penalty to the abusers in several ways: First, there is a psychological and emotional component of intimate partner abuse that often generates victims who remain committed to their abuser and do not wish to send him to prison. Thus, guilt effectively transfers the cost from abusers to victims.<sup>17</sup> Second, if abusers are arrested but no further legal action is taken, they may return home within a day of their arrest and further terrorize their victim. In a non-experimental evaluation of mandatory arrest as a policy, Lyon (1999) used a logistic model to compare the likelihood of arrest under mandatory arrest laws versus pro-arrest laws in two cities in Michigan. She found that once a victim calls the police to report an incident, she is significantly less likely to call again. She posits this was likely because police intervention in the form of an arrest resulted in retribution by the abuser deterring future reporting.<sup>18</sup> Third, in many cases arrests laws resulted in the victim also being arrested if there was evidence that she (or he) physically assaulted her (or his) partner. In many areas, women constitute nearly 20 percent of domestic violence arrests,

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<sup>17</sup> Recent research finds that many women do not perceive any benefit from mandatory arrest laws, no drop policies (requiring prosecution conditional on reporting) and mandatory medical reporting and these laws may make them less willing to report in the future. (See Smith, 2000)

<sup>18</sup> Rennison (2000) found that fear of reprisal from abuser the most commonly cited cause for not reporting a domestic violence incident. This is hotly contested claim. Mills (1998) based on research by Sherman and Berk (1984) claims that arrests actually increase re-assaults. More recent work by Maxwell, Garner and Fagan (2002) find that there is no significant change in the risk of assault.

a far higher percentage than the estimated proportion of female abusers.<sup>19</sup> Over half of these female arrestees can be identified as previous victims of intimate partner violence (Martin, 1997). Anecdotal evidence from some battered women advocates suggests that these “dual arrests” are the most serious problem with mandatory arrest.<sup>20</sup> Dual arrests have serious implications for victims who are immigrants and may be deported if convicted of assault. In addition, those who have children face potential loss of custody during the arrest period. All of these costs may result in an increased unwillingness to report abuse to the police.

To test the plausibility of the reporting story, I considered the effect of mandatory arrest laws on homicides committed against members of the immediate family. Because mandatory arrest laws required the arrest of an abuser in a domestic situation, familial abuse was also covered by these laws. However, unlike for adults, children typically do not report their own physical abuse to police. Instead, abuse is usually detected by an outside adult (such as a teacher or a doctor).<sup>21</sup> In this case reporting would not be a function of the cost of reporting to the abuser.<sup>22</sup> Unlike in intimate partner abuse settings, the escalation of violence in child abuse situations could *increase* the probability of another adult noticing and therefore reporting the abuse. Given this situation, mandatory arrest laws should reduce the probability of severe violence to children by family members. I therefore defined “family homicides” as homicides committed against a father, mother, step-father, step-mother, son, daughter, step-son, step-

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<sup>19</sup> For example, in Phoenix, AZ, 18 percent of domestic violence arrests are women (AZCASA). Women are thought to be abusers in less than 5 percent of intimate partner violence cases (Dobash, R.P., Dobash, E.E., Wilson, M. & Daly, M. 1992). Though some work suggests there is a surprisingly high rate of female on male abuse (see Strauss and Geller (1980)) however this work is problematic and for the most part ignores the severity and context of the violence (see Blau, 1998). This is particularly relevant in the case of intimate partner abuse. For example, suppose a husband spent years beating his wife severely. At the time of the survey, the husband shoved his wife and she immediately threatened him with a knife. The conflict tactics scale (CTS) treats the wife’s behavior as aggressive when it is, in context, clearly defensive. Moreover, the CTS fails to properly differentiate acts of violence that constitute severe abuse. When such a breakdown is down, men typically have the higher rates of the most dangerous behaviors, such as firing a gun, repeated their violence more often, and do more physical harm. For a greater discussions see DeKeserdy and Schwartz (1998).

<sup>20</sup> This statement is based on conversations with individuals at battered women’s coalitions in NJ, AZ, NY, CA, CT and IL.

<sup>21</sup> More specifically, of the nearly 2.8 million child abuse cases reported to child protective services agencies in 2000, 56.1 percent of all reports were from law enforcement, educators, medical and mental health professionals, social services personnel, child care providers and other mandated reporters. U.S. Department of Health and Human Services, Administration on Children, Youth and Families, Child Maltreatment 2000 (Washington, DC: U.S. Government Printing Office, 2002).

<sup>22</sup> Actually, many professionals have legal requirements to report suspected abuse which can compensate for any potential costs they might incur from reporting abusers in their community.

daughter, brother, or sister.<sup>23</sup> I constructed a count of these homicides by state by year and defined a count of family homicides per 100,000 inhabitants.

Columns (1) and (2) of Table 6 reports the results from a regression of family homicides per 100,000 inhabitants on an indicator for the mandatory arrest laws, an indicator for recommended arrest laws controlling for state and year fixed effects. Column (2) adds the full set of demographic, economic and social policy controls. The results indicate the family homicides decreased by about 0.4 per 100,000, corresponding to a 42 percent decline.<sup>24</sup> Because the reporting hypothesis suggests that arrest laws should more strongly effect the abuse of children rather than the abuse of any residential individual, I estimate two sets of regressions on a more restricted dependent variable. The first restriction I impose is that the victim was a child (either by blood or marriage) of the perpetrator produces similar effects. These results are reported in columns (3) and (4) of Table 6 and are quite similar in percent change terms in homicides rates to the unrestricted family homicides levels. The second restriction I impose is that the children are of school age (i.e. age 6-17). It is certainly possible that abuse of quite small or quite old children may rely more on the reporting by an individual within the household and thus be subject to the same transference of costs as direct victims of intimate partner violence. In contrast, school age children are likely to see teachers, doctors, and nurses on a regular basis. As such, heightened abuse of these children is mostly likely to generate an increased likelihood of third party reporting. As such, we might expect to observe a larger effect of arrest laws on these homicides. Indeed, the results reported in columns (5) and (6) of table 6 suggest a nearly 75 percent reduction in homicides of these children. These results are consistent with the model suggesting that once arrest laws do not rely on reporting by the abused, these laws appear to function as predicted, reducing harm to the protected individuals.

[TABLE 6 ABOUT HERE]

#### IV. CONCLUSIONS

Many states use laws requiring the warrantless arrest of individuals believed to be responsible for intimate partner abuse as a major policy tool in their effort to end domestic

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<sup>23</sup> For specific coverage by state law, see legal appendix.

<sup>24</sup> This substantial decline in familial homicides has been the subject of much discussion. See Durose, et al. (2005)

violence. The results presented in this study suggest that this may in fact be counterproductive. Using data from the FBI Supplementary Homicide Reports from 1976-2003, I find that the level of intimate partner homicide increased in states with these mandatory arrest laws. This may be because abuse victims may be less likely to contact the police in the face of a mandatory arrest law. This failure to contact the police results in fewer interventions risking an increased probability of escalating violence. To support this interpretation, I present evidence of the effect of these laws on different types of homicides. I estimated the change in familial homicides in response to mandatory arrest laws. These crimes are covered by arrest laws but the reporting of abuse typically is not performed by the victim. Thus the reporting effect should be reduced or eliminated and the results should more closely resemble the results from the MDVE. A difference-in-difference analysis reveals that familial homicides declined in response to mandatory arrest laws. In contrast, there was no significant effect of arrest laws on uncovered homicides. This suggests that mandatory arrest laws may deter reporting nullifying the potential deterrence of abuse intended by the required arrests.

The analysis in this study leaves open several issues. First, while intimate partner homicides may have increased, it is not certain that this corresponds to increased levels of intimate partner abuse. If the intimate partner homicides and intimate partner abuse are negatively correlated, then arrest laws may decrease abuse while increasing homicides. The affect of mandatory arrest laws on less severe abuse therefore remains an open question. Second, the reasons why mandatory arrest laws produce perverse outcomes for victims of domestic violence is also uncertain. If abusers penalize victims with harsher abuse after arrests, then arrests are an insufficient response to domestic violence. In this scenario, stronger sentences and aggressive prosecution policies, which will incapacitate abusers, are necessary to ensure the safety of victims. On the other hand, if mandatory arrest laws fail because of the psychological component of abuse that is based on the emotional bonds between the abuser and the victim making victims unwilling to inflict harsh penalties on their abusers then an alternative approach which does not depend on victims reporting is needed. If the problem is a misapplication of the law (for example, through dual arrests) then preceding the enforcement of arrest laws, comprehensive police training is required. Finally, it is well known in the sociological and psychological literature that arrests are not sufficient to induce victims to leave

their abusers.<sup>25</sup> If the objective of arrest laws is to promote a decline in the prevalence of intimate partner violence then policy efforts focused on providing victims the opportunities and resources to leave abusive situations are also required.

The irony that a mandatory arrest law intended to deter abuse actually increases intimate partner homicides is not lost on this author. Given the dangerous and pervasive nature of domestic violence, there is little doubt that state intervention, in some form, is required. Determining what shape that intervention takes is of vital importance. The results from this study suggest that the threat of arrest is insufficient to deter abusers from killing their victims. Finding arrests deter victim reporting rather than perpetrator abuse provides valuable insight into the intricacies facing governmental attempts to decrease intimate partner violence. While it appears that mandatory arrest laws are not sufficient to deter abuse, the set of policies that can effectively prevent abuse and protect victims remains an issue for future research

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<sup>25</sup> See Mills (1998) for a comprehensive discussion of the problem of arrest policy

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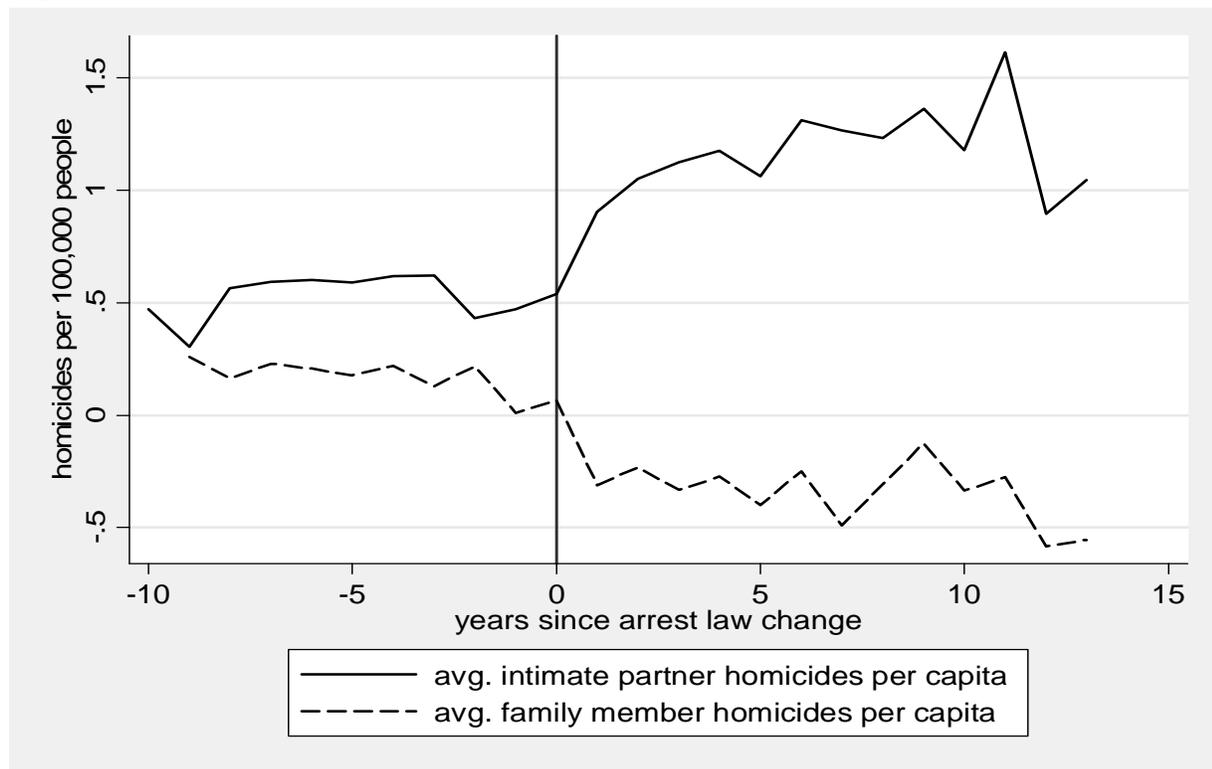
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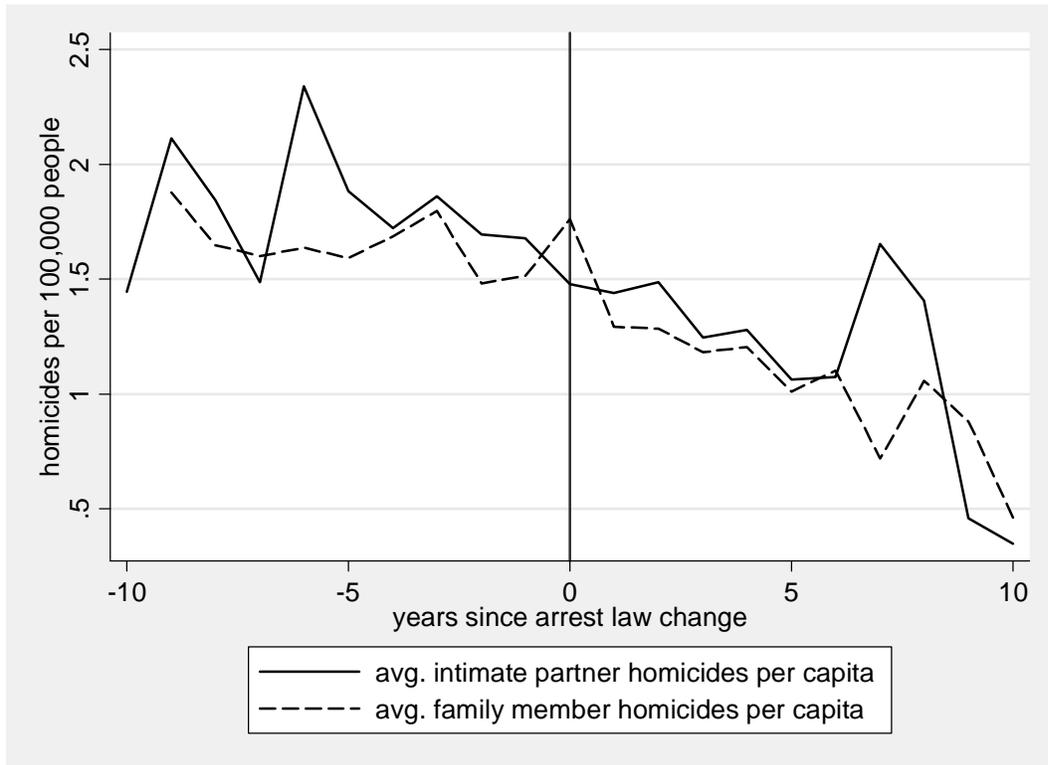
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Figure 1. Intimate Partner and Familial Homicide Rates in Mandatory Arrest Law States



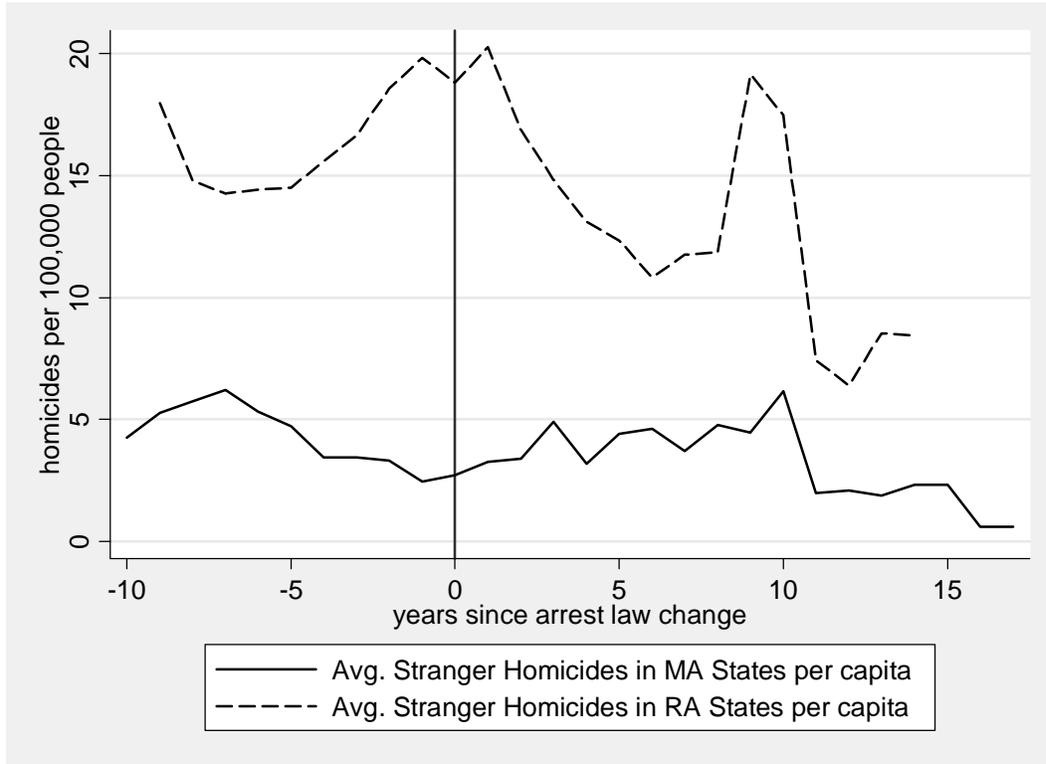
Notes: Means based on author's own calculations using Supplementary Homicide Reports 1976-2003. Intimate partner homicides include homicides of husbands, wives, ex-husbands, ex-wives, common-law husbands and common-law wives. Mandatory arrest states are defined as states where officers have no discretion as to whether to make a warrantless arrest when an intimate partner offense is reported.

Figure 2. Intimate Partner and Familial Homicide Rates in Recommended Arrest Law States



Notes: Means based on author's own calculations using Supplementary Homicide Reports 1976-2003. Intimate partner homicides include homicides of husbands, wives, ex-husbands, ex-wives, common-law husbands and common-law wives. Recommended arrest states are defined as states where officers are instructed but not required to make a warrantless arrest when an intimate partner offense is reported.

Figure 3. Non-Intimate, Non-Familial Homicide Rates in Mandatory and Recommended Arrest Law States



Notes: Means based on author’s own calculations using Supplementary Homicide Reports 1976-2003. “Other homicides” include homicides committed against employees, employers, other (non-immediate) family, friends, other known individuals, and strangers. Mandatory arrest (MA) states are defined as states where officers have no discretion as to whether to make a warrantless arrest when an intimate partner offense is reported. Recommended arrest (RA) states are defined as states where officers are instructed but not required to make a warrantless arrest when an intimate partner offense is reported.

Table 1. Mandatory Arrest Laws by State

	<i>State</i>	<i>Year Passed</i>	<i>Code/Statute</i>
<b>Recommended Arrest States</b>	AZ	1991	Ariz. Rev. Stat. Ann. §13-3601(B)
	CA	1993	Cal. Penal Code §836(c)(1)
	KS	2000	Kan. Stat. Ann. §22-2401(c)(2)
	MS	1995	Miss. Code Ann. §99-3-7(3)(a)
	MO	1989	Mo. Ann. Stat. §455.085(1)
	NY	1994	N.Y. Crim. Proc. Law §140.10(4)
	OH	1994	Ohio Rev. Code Ann. §2935.032(A)(1)(a)
	SC	2002	S.C. Code Ann. §16-25-70(B)
<b>Mandatory Arrest States</b>	AK	1996	Alaska Stat. §18.65.530(a)
	CO	1994	Colo. Rev. Stat. Ann. §18-6-803.6(1)
	CT	1987	Conn. Gen. Stat. §46b-38b(a)
	DC	1991	D.C. Code Ann. §16-1031(a)
	IA	1990	Iowa Code §236.12(3)
	ME	1995	Me. Rev. Stat. Ann. tit. 19-A, §4012(6)(D)
	NV	1989	Nev. Rev. Stat. Ann. §171.137(1)
	NJ	1991	N.J. Stat. Ann. §2C:25-21(a)
	OR	2001	Or. Rev. Stat. §133.055(2)(a)
	RI	2000	R.I. Gen. Laws §12-29-3(c)(1)
	SD	1998	S.D. Codified Laws §23A-3-2.1
	UT	2000	Utah Code Ann. §7-36-2.2(2)(a)
	VA	2002	Va. Code Ann. §19.2-81.3(B)
	WI	1996	Wis. Stat. Ann. §968.075(2)(a)
WA	1999	Wash. Rev. Code Ann. §10.31.100(2)	

Source: West, 2003. Mandatory arrest states are defined as states where officers have no discretion as to whether to make a warrantless arrest when an intimate partner offense is reported. Recommended arrest states are defined as states where officers are instructed but not required to make a warrantless arrest when an intimate partner offense is reported. For specific information on coverage see data appendix.

Table 2. Definition and Summary Statistics for Homicide Categories

		Intimate Partner Homicide	Familial Homicide	"Other" Homicide	Excluded Groups
N		36,442	24,664	299961	26,700
Total Percent of Sample		6.45	4.37	53.10	4.73
	Husband	0.28	--	--	--
	Wife	0.52	--	--	--
	Common-law Husband	0.07	--	--	--
	Common-law Wife	0.07	--	--	--
	Ex-husband	0.02	--	--	--
	Ex-wife	0.04	--	--	--
		--	--	--	--
Fraction of Category Homicides committed against:	Mother/Step-mother	--	0.11	--	--
	Father/Step-father	--	0.15	--	--
	Son/Step-son	--	0.27	--	--
	Daughter/Step- daughter	--	0.19	--	--
	Brother	--	0.19	--	--
	Sister	--	0.04	--	--
	Stepson	--	0.04	--	--
	Stepdaughter	--	0.02	--	--
			--	--	--
	In-law	--	--	0.01	--
	Neighbor	--	--	0.02	--
	Acquaintance	--	--	0.45	--
	Employee	--	--	0.10	--
	Employer	--	--	0.14	--
	Friend	--	--	0.07	--
	Other known	--	--	0.09	--
	Stranger	--	--	0.35	--
	Other family	--	--	--	0.27
	Homosexual relation	--	--	--	0.05
	Boyfriend	--	--	--	0.24
	Girlfriend	--	--	--	0.43
	Unknown relationship	--	--	--	0.90

Notes: Fractions based on FBI Supplementary Homicide Reports, 1976-2003. Numbers in sub-categories may not sum to one due to rounding errors. 177,138 observations, or 31.36 percent of the sample was committed by an unknown assailant. The statistical implications of these missing observations is discussed in the data appendix.

Table 3: Difference-in-Difference Estimates of Mandatory and Recommended Arrest Laws

	(1)	(2)	(3)	(4)	(5)	(7)
	<i>All Intimate Partner Homicides per 100,000 inhabitants</i>					
<i>Dependant Variable Mean</i>	1.48					
<i>Mandatory Arrest Law Effect</i> (=1 in MA law states after law change)	0.83** (0.33)	0.81** (0.33)	0.76** (0.34)	0.47 (0.30)	0.49*** (0.16)	0.53*** (0.17)
<i>Recommended Arrest Law Effect</i> (=1 in RA law states after law change)	-0.61 (0.61)	-0.66 (0.59)	-0.62 (0.47)	-0.96* (0.54)	-0.03 (0.18)	-0.03 (0.18)
<i>unemployment rate</i>	--	0.01 (0.07)	0.04 (0.09)	0.02 (0.07)	--	-0.035 (0.014)
<i>1 year post-law change</i>	--	--	--	0.23 (0.27)	--	--
<i>2 year post-law change</i>	--	--	--	0.14 (0.31)	--	--
<i>3 or more years post-law change</i>	--	--	--	0.41 (0.42)	--	--
Estimation Method	OLS	OLS	OLS	OLS	Poisson	Poisson
Controls for other Violent Crime rates <sup>a</sup>	Y	Y	Y	Y	N	Y
Controls for Unemployment Rate <sup>b</sup>	Y	Y	Y	Y	N	Y
State-year Demographic Variables <sup>c</sup>	N	N	Y	Y	N	Y
State-year Economic and Social Controls <sup>d</sup>	N	N	Y	Y	Y	Y
Post-law interaction effects	N	N	N	Y	N	N
State Fixed Effects	Y	Y	Y	Y	Y	Y
Year Fixed Effects	Y	Y	Y	Y	Y	Y
R-squared	0.6125	0.6127	0.701	0.6746	--	--

Notes: All regressions include 992 observations. The dependant variable for each column is the column title per 100,000 inhabitants. Robust standard errors, clustered by state, are reported in parentheses. Coefficients that are significant at the .05 (.01, .1) percent level are marked with \*\* (\*\*\*, \*). Intimate partner homicides include homicides of husbands, wives, ex-husbands, ex-wives, common-law husbands and common-law wives. Mandatory arrest (MA) states are states which require an arrest conditional on a report of domestic violence. Recommended arrest (RA) states are states where officers are instructed but not required to make a warrantless arrest when an intimate partner offense is reported.

- a. Crime rate controls use FBI Uniform Crime reports for the number of crimes per 100,000 inhabitants. Indexed crimes included in the violent crime variable are murder, robbery, assault, and rape. Indexed crimes included in the nonviolent crime count are burglary, larceny, motor vehicle theft and drug crimes.
- b. Unemployment estimates are based on the March Current Population Survey
- c. State demographic controls are based on the March Current Population Survey and include variables for the fraction of the population that is black, fraction of the population that is white, the fraction of the population that is other race, as well as age composition indicating share of prison population that is aged 14-19, 20-49, 50 or older.
- d. State economic control variables are based on the March Current Population Survey and included the variables log state personal income per capita, female-to-male employment ratio. State social policy controls include max AFDC/TANF for a family of 3, unilateral divorce laws indicators (based on classification in Stevenson and Wolfers, 2006) and indicators for whether the state has the death penalty.

Table 4 Estimates of the Effect of Mandatory and Recommended Arrest Laws on Intimate Partner Homicides for Various Subgroups

	(1)	(2)	(3)	(4)	(5)	(6)
	<i>All Intimate Partner Homicides per 100,000 inhabitants</i>	<i>Intimate partner homicides with White victims and perpetrator</i>	<i>Intimate partner homicides with Black victims and perpetrators</i>	<i>Intimate partner homicides with Asian victims and perpetrators</i>	<i>Homicides of female by males intimate partners</i>	<i>Homicides of males by female intimate partners</i>
<i>Dependant Variable Mean</i>	1.48	0.81	0.59	0.01	0.89	0.59
<i>Mandatory Arrest Law Effect</i> (=1 in MA law states after law change)	0.762** (0.326)	0.407* (0.218)	0.393*** (0.129)	0.014* (0.008)	0.458** (0.216)	0.257 (0.180)
<i>Recommended Arrest Law Effect</i> (=1 in RA law states after law change)	-0.618 (0.592)	-0.231 (0.265)	-0.379 (0.316)	0.011 (0.013)	-0.229 (0.305)	-0.430 (0.308)
<i>unemployment rate</i>	0.043 (0.074)	0.016 (0.034)	0.003 (0.040)	-0.000 (0.000)	0.001 (0.036)	0.013 (0.038)
Controls for other Crime Rates <sup>a</sup>	Y	Y	Y	Y	Y	Y
Controls for Unemployment Rate <sup>b</sup>	Y	Y	Y	Y	Y	Y
State-year Demographic Variables <sup>c</sup>	Y	Y	Y	Y	Y	Y
State-year Economic and Social Controls <sup>d</sup>	Y	Y	Y	Y	Y	Y
State Fixed Effects	Y	Y	Y	Y	Y	Y
Year Fixed Effects	Y	Y	Y	Y	Y	Y
R-squared	0.701	0.7680	0.5401	0.4534	0.7361	0.5707

Notes: All regressions include 994 observations. The dependant variable for each column is the column title per 100,000 inhabitants. Robust standard errors, clustered by state, are reported in parentheses. Coefficients that are significant at the .05 (.01, .1) percent level are marked with \*\* (\*\*\*, \*). Intimate partner homicides include homicides of husbands, wives, ex-husbands, ex-wives, common-law husbands and common-law wives. Mandatory arrest (MA) states are states which require an arrest conditional on a report of domestic violence. Recommended arrest (RA) states are states where officers are instructed but not required to make a warrantless arrest when an intimate partner offense is reported.

a. Crime rate controls use FBI Uniform Crime reports for the number of crimes per 100,000 inhabitants. Indexed crimes included in the violent crime variable are murder, robbery, assault, and rape. Indexed crimes included in the nonviolent crime count are burglary, larceny, motor vehicle theft and drug crimes.

b. Unemployment estimates are based on the March Current Population Survey

c. State demographic controls are based on the March Current Population Survey and include variables for the fraction of the population that is black, fraction of the population that is white, the fraction of the population that is other race, as well as age composition indicating share of prison population that is aged 14-19, 20-49, 50 or older.

d. State economic control variables are based on the March Current Population Survey and included the variables log state personal income per capita, female-to-male employment ratio. State social policy controls include max AFDC/TANF for a family of 3, unilateral divorce laws indicators (based on classification in Stevenson and Wolfers, 2006) and indicators for whether the state has the death penalty.

Table 5 Falsification Tests of Difference-in-Difference Estimates of the Effect of Mandatory and Recommended Arrest Laws

	(1)	(2)	(3)	(4)	(5)	(6)
	"Other Homicides" per 100,000 inhabitants		"Other Homicides" with female victims		Intimate Partner Homicides Uncovered by Arrest laws	
<i>Dependant Variable Mean</i>	10.37		1.41		0.73	
<i>Mandatory Arrest Law Effect</i>	3.15 (2.46)	2.91 (2.39)	0.39 (0.39)	0.35 (0.37)	0.26 (0.20)	0.23 (0.20)
<i>Recommended Arrest Law Effect</i>	-0.56 (3.70)	-0.89 (3.64)	-0.37 (0.54)	-0.43 (0.52)	0.09 (0.20)	0.06 (0.19)
Controls for other Crime Rates <sup>a</sup>	N	Y	N	Y	N	Y
Controls for Unemployment Rate <sup>b</sup>	N	Y	N	Y	N	Y
State-year Demographic Variables <sup>c</sup>	N	Y	N	Y	N	Y
State-year Economic and Social Controls <sup>d</sup>	N	Y	N	Y	N	Y
State Fixed Effects	Y	Y	Y	Y	Y	Y
Year Fixed Effects	Y	Y	Y	Y	Y	Y
R-Squared	0.6396	0.6419	0.5984	0.6025	0.6662	0.6704

Notes: All regressions include 994 observations. The dependant variable for each column is the column title per 100,000 inhabitants. Robust standard errors, clustered by state, are reported in parentheses. Coefficients that are significant at the .05 (.01, .1) percent level are marked with \*\* (\*\*\*, \*). "Other homicides" include homicides committed against employees, employers, other (non-immediate) family, friends, other known individuals, and strangers. Intimate partner homicides uncovered by law refers to relationships that are classified as intimate partner but were not specified in the state's arrest law statute. See Legal Appendix for detailed coverage by state. Mandatory arrest (MA) states are states which require an arrest conditional on a report of domestic violence. Recommended arrest (RA) states are states where officers are instructed but not required to make a warrantless arrest when an intimate partner offense is reported.

- a. Crime rate controls use FBI Uniform Crime reports for the number of crimes per 100,000 inhabitants. Indexed crimes included in the violent crime variable are murder, robbery, assault, and rape. Indexed crimes included in the nonviolent crime count are burglary, larceny, motor vehicle theft and drug crimes.
- b. Unemployment estimates are based on the March Current Population Survey.
- c. State demographic controls are based on the March Current Population Survey and include variables for the fraction of the population that is black, fraction of the population that is white, the fraction of the population that is other race, as well as age composition indicating share of prison population that is aged 14-19, 20-49, 50 or older.
- d. State economic control variables are based on the March Current Population Survey and included the variables log state personal income per capita, female-to-male employment ratio. State social policy controls include max AFDC/TANF for a family of 3, unilateral divorce laws indicators (based on classification in Stevenson and Wolfers, 2006) and indicators for whether the state has the death penalty.

Table 6 Difference-in-Difference Estimates of Familial and non-familial homicide Rates

	(1)	(2)	(3)	(4)	(5)	(6)
	Family homicides per 100,000 inhabitants	Family Homicides: Child of Offender victims	Family Homicides: Child of Offender victims	Family Homicides: Child of Offender victims	Family Homicides, school-age child of offender victims	Family Homicides, school-age child of offender victims
<i>Dependant Variable Mean</i>	0.88		0.42		0.33	
<i>Mandatory Arrest Law Effect</i>	-0.392* (0.205)	-0.367* (0.197)	-0.225* (0.127)	-0.208* (0.121)	-0.264** (0.118)	-0.250** (0.113)
<i>Recommended Arrest Law Effect</i>	-0.058 (0.327)	-0.090 (0.318)	-0.012 (0.172)	-0.003 (0.169)	-0.024 (0.139)	-0.012 (0.137)
Controls for other Crime Rates <sup>a</sup>	N	Y	N	Y	N	Y
Controls for Unemployment Rate <sup>b</sup>	N	Y	N	Y	N	Y
State-year Demographic Variables <sup>c</sup>	N	Y	N	Y	N	Y
State-year Economic and Social Controls <sup>d</sup>	N	Y	N	Y	N	Y
State Fixed Effects	Y	Y	Y	Y	Y	Y
Year Fixed Effects	Y	Y	Y	Y	Y	Y
R-Squared	0.7098	0.7171				

Notes: All regressions include 994 observations. The dependant variable for each column is the column title per 100,000 inhabitants. Robust standard errors, clustered by state, are reported in parentheses. Coefficients that are significant at the .05 (.01, .1) percent level are marked with \*\* (\*\*\*, \*). “Family Homicides” include homicides committed by mothers, fathers, daughters, sons, step-mother, step-father, step-daughter, step-son, and other family members. “Family homicides: Child of Offender victims” include only homicides committed by fathers, mothers, step-fathers, or step-mothers, against sons, daughters, step-sons or step-daughters. “Family homicides: school-age child of offender victims” includes homicides committed by fathers, mothers, step-fathers, or step-mothers, against sons, daughters, step-sons or step-daughters in which the victim is aged 6-18.

a. Crime rate controls use FBI Uniform Crime reports for the number of crimes per 100,000 inhabitants. Indexed crimes included in the violent crime variable are murder, robbery, assault, and rape. Indexed crimes included in the nonviolent crime count are burglary, larceny, motor vehicle theft and drug crimes.

b. Unemployment estimates are based on the March Current Population Survey.

c. State demographic controls are based on the March Current Population Survey and include variables for the fraction of the population that is black, fraction of the population that is white, the fraction of the population that is other race, as well as age composition indicating share of prison population that is aged 14-19, 20-49, 50 or older.

d. State economic control variables are based on the March Current Population Survey and included the variables log state personal income per capita, female-to-male employment ratio. State social policy controls include max AFDC/TANF for a family of 3, unilateral divorce laws indicators (based on classification in Stevenson and Wolfers, 2006) and indicators for whether the state has the death penalty.

