Fraternities and Sexual Assault

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Abstract

This is to be completed later when I have all of the final covarites.

1 Introduction

(*This section is the only section has not been updated since last 290 meeting. All other sections have been updated*) Rape remains prevalent on all university campuses. According to the Campus Climate Survey on Sexual Assault and Sexual Misconduct conducted by the Association of American Universities, the overall rate of nonconsensual sexual contact since a student enrolled at their respective college was 13% in 2019.[1] Additionally, this percentage has increased since 2015[2] with the largest increases stemming from undergraduate women. Academics have pointed to multiple sources of this heinous behavior including college partying with alcohol (Lindo, Siminski, and Swensen 2018), liquor violations (Wiersma-Mosley, Jozkowski, and Martinez 2017), and most pertinent, fraternities (Foubert, Newberry, and Tatum 2008). In the book *Sexual Assault on Campus: The Problem and the Solution*, the authors Carol Bohmer and Andrea Parrot claim that "the men who are most likely to rape in college are fraternity pledges."[3] Furthermore, academic studies using survey data have found

[1] This number comes from the 33 large universities that participated in the survey.

[2] Of the 21 schools that participated in both the 2015 and the 2019 surveys, results showed a 3% increase for undergraduate women, 2.4% increase for graduate and professional women.

[3] A fraternity pledge is another name for a first-year member of a fraternity.

that fraternity men were more likely to commit sexual assault than men who did not join a fraternity (Foubert, Newberry, and Tatum 2008), university males rated sexual assault perpetrators as less guilty when the perpetrator was a fraternity member (Seabrook and Ward 2019), and sorority women (who interact with fraternity men frequently) were sexually assaulted at four times the rate of non-sorority women (Minow and Einolf 2009). Universities have responded to fraternity-related misconduct with a range of policy initiatives, and in particular, placing moratoriums on fraternity social-life. Each of these moratoriums occurs campus-wide, thereby affecting all fraternities simultaneously. And while the moratorium guidelines vary by university, each of them prohibits fraternity social gatherings with alcohol. This paper exploits the variation in timing of 39 fraternity moratoriums at 34 four-year universities across the US to estimate a causal effect of fraternity moratoriums on cases of rape.

2 Background: Fraternities in the US

In the context of universities, a fraternity is a group of men who gather for social, academic, or demographic interests. Fraternities are a ubiquitous presence at many four-year universities.[4] In 2015, the North American Interfraternity (NIC) conference noted that there were over 5500 chapters (groups) located on over 800 campuses in the US and Canada. According to the US News Reports, some universities have fraternity membership as high as 85%. The overall composition of fraternity members tend to have family income and education higher than non-members (Routon and Walker 2014), while economic studies have linked fraternity membership to higher academic performance (Cheng 2018), alcohol consumption (Routon and Walker 2014), and future income (Mara, Davis, and Schmidt 2018). However, this study, to my knowledge, is the first to estimate the effect of fraternity moratoriums in any context.

This analysis focuses on a subset of fraternities known as the Interfraternity Council

[4]To my knowledge, IFC fraternities do not exist officially at any community colleges or trade schools.

(IFC). These fraternities are composed of individual chapters that are "social fraternities," although their values are far more outreaching than this. According to their website, the IFC "exist to promote the shared interests and values of our member fraternities: leadership service, brotherhood, and scholarship."

To become a member of an IFC fraternity, prospective members must apply ("pledge") during recruitment events that take place at least once a year. Once a chapter and prospective member jointly accept membership, the new member must abide by the chapter's guidelines. Figure 1 shows an example of the overarching rules within the chapter, Sigma Alpha Epsilon–one of the oldest fraternity chapters across the US. Each member must maintain a GPA over a certain threshold, pay an initiation and semesterly fee, attend chapter ritual events and meetings, be involved in one additional campus or community organization, and complete service hours. Upon membership, pledges are invited to live within the fraternity house[5], although national statistics for what percentage of pledges take this offer are not available.

Each chapter house has its unique set of rules and atmosphere. In one field study, students at universities were surveyed about their opinions at each chapter house on campus. In the perceived "high risk" houses, social behavior differed dramatically from "low risk" houses—high risk house parties had skewed gender ratios, more segregation between men and women, and men engaged in more jokes and conversations that degraded women than low risk houses (BOSWELL and SPADE 1996). However, all fraternities interact with sorority chapters frequently, whose members have been found to consume alcohol with greater frequency, delay assessments of threat, and have significantly higher rates of drugging victimization than non-sorority members ((Franklin 2016),(Lasky et al. 2017)). Moreover, each chapter is overseen by three sources of jurisdiction: the IFC, the university[6], and the chapter's national headquarters. Each of these entities has the power to restrict fraternity behavior,

[5]Not all fraternities have houses where their members live. While I certainly need to verify this, I am confident that all schools in the sample have fraternity houses on, or near, campus.

[6]A chapter must be recognized by the university to be under its jurisdiction. This involves following the guidelines administered by the university on social activities and behavior.

although only the IFC and university can implement a campus-wide moratorium. While study only focuses on campus-wide moratoriums, it is important to note that individual chapter moratoriums occur frequently each year.

3 Fraternity Moratoriums

The sample consists of 43 campus-wide moratoriums occurring across the US (Figure 2). Table 1 shows the universities in the sample and their corresponding moratorium dates and lengths. The average length of the moratoriums was 70 days and the majority of universities (88%) only experienced one moratorium in the sample period. Importantly, each moratorium differs substantially across universities in terms of triggering event (i.e. the event that resulted in the moratorium), restrictions, and governing body that oversaw the moratorium. Figure 3 shows the distribution of triggering events by the governing body that enacted it. Sexual assault reports and hazing allegations account for 20% of campus moratoriums, while deaths and racist activity account for 15 and 5 percent respectively. Alcohol violations, re-evaluation due to national trends, and unspecified rule violations are grouped into their own category ("Other") with consisting of the remaining 41%. University and IFC implemented moratoriums are evenly balanced on their triggering events outside of deaths and racist activity where universities possess the entire density.

4 Data

The main analysis uses data from the Uniform Crime Reporting (UCR) Program from the FBI. The UCR systematically collects crime data from local police departments and aggregates them to the agency-month level. In particular, it contains information on the total number of rape incidences reported by each department. Each local police department and university-specific police agency was connected to a corresponding university area using the

most recent Law Enforcement Agency Identifiers Crosswalk[7] (LEAIC). Since the crosswalk is not updated yearly, I only observe the population that the local police department serves for one year. Table 2 shows the universities and their corresponding local municipalities that serve them. On average, there are approximately two law enforcement agencies that serve each university area–a dedicated university police and a more encompassing local municipality. Notably, reports of rape are significantly lower for university police departments than the local municipalities. Figure 4 illustrates this discrepancy by plotting the distribution of per-capita reports of rape of university-police and local municipalities. Per-capita rape is defined in the sample as the total reports of rape divided by the population each police department serves. For example, if a police department serves a local community/city, I use the population number provided in the LEAIC. On the other hand, if the police department is university specific, I divide the reports of rape within this department by the total enrollment of the university.

The sample, which consists of 38 unique 4-year degree-granting universities, begins in 2013 to correspond with the year the UCR changed its definition of rape to include non-consenting acts from both males and females in addition to acts of oral or anal penetration. Due to this change, I limit my sample to all media-known,[8] campus-wide moratoriums of fraternity life from the years 2013-2018.[9] Each campus-wide moratorium was collected through three methods: a time-specific Google search using key phrases,[10] a private Facebook group for fraternity and sorority life directors/affiliates to post related articles, and discussions with board members of the Association of Fraternity/sorority Advisors (AFA) and university

[7]To match law enforcement agencies with schools, the data was filtered by local police agencies and four-year university police departments. Each university police department has a "place code" which is an area that that particular police department covers. However, there are other police departments in these areas that also serve universities, and each of these was attached to the school, although some that were obviously not serving the university (e.g. nearby community college police) were withdrawn.

[8]The schools that I observe in my sample all had some form of media article or press release from a school /local newspaper. While these may not be the universe of campus-wide moratoriums, they are, to my knowledge, the only events that received media attention.

[9]My preferred sample will include 2019 when the UCR is updated.

[10]Some (although certainly not all) of the searches I used include "fraternity moratorium", "all fraternity closed", "all fraternity suspended", "all fraternities suspended", and "Greek life closure".

fraternity and sorority life staff. Each moratorium's date has been verified by either a news article or an email/phone conversation with the corresponding university staff.

Of the 38 universities included, 89% are public, and 13% have appeared at least once in the Princeton Review Top Party Schools list in the corresponding time frame. Table 3 shows descriptive statistics of the universities from the Integrated Postsecondary Education Data System (IPEDS) and the corresponding average reports of rape. The average monthly report of rape is approximately 4 with a large standard deviation of 7. The average undergraduate enrollment is roughly twenty-two thousand, although the standard deviation is large at over twelve thousand. Graduation rates vary significantly across the schools, as the maximum graduation rate reaches over ninety percent, while the minimum is approximately forty two percent. On average, the universities are composed primarily of white individuals (~60%). There is a wide range of college selectivity with average SAT 75th percentiles ranging from nearly perfect scores (790/800) to relatively average scores (528/800).

It is important to note that at this time, the data is not entirely complete. I am currently in the process of collecting semesterly hazing reports, chapter numbers, IFC population, fraternity and sorority life population, pledge population, and by-day campus crime reports through Freedom of Information Act (FOIA) requests to enrich the data.

5 Empirical Strategy

I estimate the effects of campus-wide fraternity moratoriums on reports of rape using the variation in the timing of the implementation dates. In particular, I estimate the following model:

$$PercapitaRape_{u,t,a} = \alpha_a + \rho_u + \phi_t + \beta_{fe} Moratorium_{u,t,a} + \gamma Moratorium_{u,t,a} \times Uni_{u,t,a} + \mathbb{X}_{u,t,a} + \epsilon_{u,t,a} \quad (1)$$

where $PercapitaRape_{u,t}$ is the count of reported rapes in police agency a, at university u, in time t. Since treatment lengths vary in time across months, $Moratorium_{u,t,a}$ is a

continuous variable between 0 and 1 that represents the proportion of moratorium days in each month. For instance, Texas State University experienced a moratorium on 11/14/2017 that ended on 2/26/2018. In this case, $Moratorium_{u,t,a}$ would be equal to 0.53 in the month of November ((30-14)/30), 1 in the months of December and January (31/31), and 0.93 in February (26/28). This allows for a measure of treatment intensity, as a month with a small proportion of days that are treated differs from a month that is completely treated. $\mathbb{X}_{u,t,a}$ is a vector of covariates including graduation rate, full-time enrollment, university selectivity, and undergraduate population/demographics corresponding to each university u or agency a at time t. However, the critical covariates of fraternity membership and pledge populations by semester are still incomplete and will be added in future iterations. The inclusion of university (ρ_u), police agency (α_a) and month-by-year fixed effects (ϕ_t) controls for any time-invariant differences between universities, police agencies, and time of year. This is crucial, as universities differ in social cultures, and reports of sexual assault change seasonally (McLean 2007). Finally, $Uni_{u,t,a}$ is an indicator variable equal to 1 if a university enacted the moratorium, rather than the IFC. Therefore, γ would represent the difference between university and IFC implemented moratoriums on reports rape.

Additionally, I estimate a model similar to Equation 1, but interchange the outcome variable to $Log(Rape_{u,t,a} + (Rape_{i,t}^2 + 1)^{\frac{1}{2}})$. This outcome variable is the inverse-hyperbolic-sine (IHS) transformation of the number of reported rapes at university u at agency a in time period t. This transformation is preferred to the natural-log transformation as it is defined at 0 (57% of my rape data is recorded as 0) and it reduces the influence of extreme values in the outcome variable (Burbidge, Magee, and Robb 1988).

The model's identifying assumption is that universities that have, or will, experience a moratorium are a good counterfactual for universities undergoing a moratorium conditional on the covariates mentioned above. Additionally, there are several other assumptions needed to estimate causal effects: no anticipation, common trends, and no change in reporting of rapes.

5.1 No Anticipation

To obtain causal estimates, fraternity moratoriums must not be anticipated. As Figure 3 shows, 15% were due to a fraternity death and 5% were because of racist activity. These events are plausibly unexpected, although they only account for 20% of the moratoriums. However, the other 80% (hazing, sexual assault, alcohol violations, rule violations) are consequences that could lead chapters to anticipate their own house being suspended, but these events are unlikely to lead fraternity members to believe that their entire community will face a moratorium.

5.2 Common Trends

To support the common trends assumption, I estimate an event study model with the following specification:

$$Y_{u,t,a} = \alpha_a + \rho_u + \phi_t + \sum_{t=-8, t\neq -1}^{t=2} \beta_t \mathbb{I}(Moratorium_{u,t,a}) + \epsilon_{u,t,a} \tag{2}$$

where $Y_{u,t,a}$ is either per-capita or IHS transformation of reports of rape. I include all universities with completed moratorium begin and end dates except University of Central Florida, which has only 2 months of pre-trends (refer to Feedback section for question). The end points are binned so the dummy for the final lag and lead are equal to 1 for times $(-\infty, -8]$ and $[2, \infty)$ respectively. I omit the month before the beginning of a moratorium for my reference period, and hence, all coefficients are relative to the month-before moratorium. I show only 2 months following a fraternity moratorium so that the entire sample, excluding University of Central Florida, could be added to the graph.

Figure 5 shows the event study trends of rape reports before and after the moratoriums. In the months leading to a moratorium, the means oscillate around zero in a non-systematic fashion with the confidence intervals containing zero.

5.3 Changes in Reports of Rape

The sample only observes reported rapes which has been estimated to be 12% of the true occurrences for students (Kilpatrick 2007). Therefore, it is imperative to test that the likelihood of reporting a rape is not changing because of a campus-wide moratorium on fraternities. If reports of rape are systematically underreporting during of a fraternity moratorium (e.g. fear of blame) then the model would be underestimating the true effect. On the other hand, if reports of rape are systematically overreporting concurrently with a moratorium period (e.g. more victims come forward because fraternities are under more pressure), than the model would be overestimating the results. As an indirect test of whether reports of rape are changing due to moratoriums, I estimate Equation 1 on the number of rapes cleared. A cleared offense, as defined by the UCR, is an offense that has ended in arrest or "by exceptional means". The latter refers to whether the police agency was able to identify the offender, gather enough evidence to support an arrest, identify the offender's exact location, or encountered a circumstance outside the control of law enforcement that prohibits the agency from arresting, charging, or prosecuting the offender. Table 4 shows that moratoriums have no significant effect on a report of rape being cleared. Column 1 shows the estimation with no controls, but with added university-by-year fixed effects. Column 2 shows my preferred specification including controls without university-by-year fixed effects. In each of these specifications, there is no significant effect on the types of rapes being cleared.

6 Preliminary Results

Please note that these results are very preliminary. I have not written this up formally, and am still trying to understand which model I want to use, and which controls. I decided to show some results I find interesting, but a little confusing.

Preliminary results are shown in Table 5 and 6. Note that these results are excluding three schools that do not yet have confirmed moratorium end dates. I differentiate the results

between all of the police municipalities, and only the university police departments. Column one shows a regression specification featuring no controls outside of an interaction term between a university enacted moratorium and a moratorium. This interaction term shows the difference between the moratorium effects between a university enacted moratorium in comparison to an IFC-enacted moratorium. Interestingly, university enacted moratoriums have a smaller effect on reports of rape compared to a IFC-enacted moratorium, although this is not statistically significant. Column one's specification also includes month-by-year, agency, and university-by-year fixed effects. I included the university-by-year fixed effects in this first specification as an alternative method of using control variables since all of the university-characteristic data is at the yearly level. Columns 2, 3, and 4 relate to my main specification as shown in Equation 1, however, I remove and add-in a few control variables that have been causing some confusion. In particular, the "Proportion Foreign," or the proportion of international students, drastically changes my results from an insignificant negative effect, to a very strong negative effect while shrinking my standard errors.

At this time, I am still unsure which model specification I want to use. Each contain similar results, but the per-capita outcome variable is easier to explain while the IHS is easier to read. Since vital control variables are still missing (fraternity population and new member population by school), these results are not final. Without the control variables of fraternity/new member population by university, I am not comparing schools that have similar prevalence of fraternity activity.

7 Feedback Wanted

- I need to figure out a sample and stick with it. I know that all of my regressions are taking observations in and out. This is being caused by the covariates "SAT score" and "proportion foreign". How important are these variables? In my opinion, SAT score gives a level of selectively in schools, and behavior across selectively could be crucial.

Moreover, schools with higher proportion of international students may have differences in student behavior.

- I think I need to stick with 1 right-hand-side outcome variable-switching between per-capita and inverse-sine is a bit confusing and inconsistent. I understand it's up to the researcher to choose which one to use, but I am unsure which to choose. I find similar results with both.

- I am curious about your opinions on what is happening in my regression specification when I add/subtract a couple of the covariates (SAT score + proportion foreign). I lose observations when I include both, which I think may be driving the results to be significant. However, I can also argue for keeping these controls in as they will compare universities that are more similar to one another. For instance, a university that has more international students is likely to have a different atmosphere than one with no international students.

- Should I even have controls outside of fixed effects? One paper that I follow closely (Lindo, Siminski, and Swensen 2018), does not include control variables for the schools characteristics.

- In my event study, I omit one of the universities that has 2 moratoriums: University of Central Florida. I do this because I only have 2 months of pre-trends for the first closure. However, I know that if I exclude this in my event study, I should exclude it in my results as well. Yet I don't know if it's worth deleting a school that has 2 moratoriums. I am already underpowered, and don't want to give up more observations than I absolutely have to.

8 Planned Next Steps/Directions

- I have begun FOIA hazing violations to use as another outcome variable.

- I still have the NIBRS which has daily level data on crime reports which include age of victim, and time of incident. NIBRS will shrink my sample size to include only 18 universities, but it will still be a nice check.
- I want to wait until I have my final covariates before starting to build a story of how effective moratoriums are at reducing reports of rape. I could run the analysis using my incomplete data, but I do not want results to sway which way I paths I begin to analyze.
- Once I have more of my results, I'll do a more in-depth literature review to build around my story.

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Table 1: Fraternity Moratorium Closure and Reinstated Dates

University	Suspension Date	Suspension End	Length	Suspension Date (2)	Suspension End (2)	Length (2)
Arkansas State University	2017-02-21	2017-04-01	39 days	NA	NA	NA days
Ball State University	2017-10-24	2018-01-31	99 days	NA	NA	NA days
California Polytechnic State University-San Luis Obispo	2015-01-13	2015-04-06	83 days	2018-04-17	2018-06-06	50 days
California State University-Northridge	2014-10-23	NA	NA days	NA	NA	NA days
Clemson University	2014-09-23	2014-10-10	17 days	2018-01-27	2018-03-01	33 days
College of Charleston	2016-08-30	NA	NA days	NA	NA	NA days
East Carolina University	2015-01-28	2015-03-07	38 days	NA	NA	NA days
Florida Atlantic University	2017-11-28	2018-03-01	93 days	NA	NA	NA days
Florida International University	2018-01-01	2018-04-01	90 days	NA	NA	NA days
Florida State University	2017-11-06	2018-03-26	140 days	NA	NA	NA days
Indiana University-Bloomington	2017-11-27	2018-02-28	93 days	NA	NA	NA days
Louisiana State University and Agricultural & Mechanical College	2017-09-14	2017-10-12	28 days	2017-10-19	2018-03-01	133 days
Marshall University	2018-03-05	2018-03-15	10 days	NA	NA	NA days
Miami University-Oxford	2018-02-20	NA	NA days	NA	NA	NA days
Monmouth University	2018-09-06	2019-01-16	132 days	NA	NA	NA days
Murray State University	2018-05-09	2018-08-14	97 days	NA	NA	NA days
North Carolina State University at Raleigh	2015-03-01	2015-05-09	69 days	NA	NA	NA days
Northwestern University	2017-02-07	2017-03-27	48 days	NA	NA	NA days
Ohio State University	2017-11-16	2018-02-07	83 days	NA	NA	NA days
Pennsylvania State University	2017-02-07	2017-05-05	87 days	NA	NA	NA days
Rollins College	2017-02-22	2017-03-17	23 days	NA	NA	NA days
Rutgers University-New Brunswick	2015-04-06	2015-06-01	56 days	NA	NA	NA days
San Diego State University	2018-03-09	2018-10-01	206 days	NA	NA	NA days
Texas State University	2017-11-14	2018-02-26	104 days	NA	NA	NA days
Tufts University	2016-11-16	2016-12-22	36 days	NA	NA	NA days
University of California-Berkeley	2016-10-16	2016-10-27	11 days	NA	NA	NA days
University of Central Florida	2013-02-20	2013-04-01	40 days	2018-01-08	2018-03-05	56 days
University of Idaho	2017-12-12	2018-03-13	91 days	NA	NA	NA days
University of Iowa	2017-05-01	2017-11-18	201 days	NA	NA	NA days
University of Kansas	2018-03-12	2018-03-14	2 days	NA	NA	NA days
University of Michigan-Ann Arbor	2017-11-09	2018-01-03	55 days	NA	NA	NA days
University of Missouri-Columbia	2018-03-06	2018-03-13	7 days	NA	NA	NA days
University of New Mexico	2017-12-08	2018-02-19	73 days	NA	NA	NA days
University of North Florida	2017-12-04	2017-12-18	14 days	NA	NA	NA days
University of Pittsburgh-Pittsburgh Campus	2018-01-19	2018-08-30	223 days	NA	NA	NA days
University of Virginia	2014-11-22	2015-01-09	48 days	NA	NA	NA days
Washington State University	2016-11-07	2017-01-09	63 days	NA	NA	NA days
West Virginia University	2014-11-14	2015-01-19	66 days	2018-02-14	2018-08-18	185 days

Table 2: Universities and their corresponding police municipalities

University	Local Municipality	ORI	Fplace Code
Arkansas State University-Main Campus	ARKANSAS STATE UNIVERSITY POLICE DEPT.	AR0160500	35710
Arkansas State University-Main Campus	JONESBORO POLICE DEPARTMENT	AR0160100	35710
Ball State University	BALL STATE UNIVERSITY POLICE DEPARTMENT	IN0180500	51876
Ball State University	MUNCIE POLICE	IN0180100	51876
California Polytechnic State University-San Luis Obispo	CALIFORNIA POLYTECHNIC STATE UNIVERSITY-SAN LUIS O	CA0400700	68154
California Polytechnic State University-San Luis Obispo	SAN LUIS OBISPO POLICE DEPARTMENT	CA0400600	68154
California State University-Northridge	CALIFORNIA STATE UNIVERSITY - NORTHRIDGE POLICE	CA0198400	52176
Clemson University	CLEMSON POLICE DEPARTMENT	SC0390200	14950
Clemson University	CLEMSON UNIVERSITY POLICE	SC0390600	14950
College of Charleston	CHARLESTON POLICE DEPARTMENT	SC0100100	13330
College of Charleston	COLLEGE OF CHARLESTON PUBLIC SAFETY	SC0101700	13330
East Carolina University	EAST CAROLINA UNIVERSITY DEPT. OF PUBLIC SAFETY	NC0740900	28080
East Carolina University	GREENVILLE POLICE DEPARTMENT	NC0740300	28080
Florida Atlantic University	BOCA RATON POLICE DEPARTMENT	FL0500200	7300
Florida Atlantic University	FLORIDA ATLANTIC UNIVERSITY POLICE	FL0503700	7300
Florida International University	FLORIDA INTERNATIONAL UNIVERSITY POLICE	FL0133100	45000
Florida International University	MIAMI POLICE DEPARTMENT	FL0130600	45000
Florida State University	FLORIDA STATE UNIVERSITY POLICE	FL0370600	70600
Florida State University	TALLAHASSEE POLICE DEPARTMENT	FL0370300	70600
Indiana University-Bloomington	BLOOMINGTON POLICE	IN0530100	5860
Indiana University-Bloomington	INDIANA UNIVERSITY POLICE DEPARTMENT	IN0530200	5860
Louisiana State University and Agricultural & Mechanical College	BATON ROUGE POLICE DEPARTMENT	LA0170200	5000
Louisiana State University and Agricultural & Mechanical College	LOUISIANA STATE UNIVERSITY POLICE DEPARTMENT	LA0170400	5000
Marshall University	HUNTINGTON POLICE DEPARTMENT	WV0060200	39460
Marshall University	MARSHALL UNIVERSITY POLICE DEPARTMENT	WV0060400	39460
Miami University-Oxford	MIAMI UNIVERSITY POLICE DEPARTMENT	OH0091700	59234
Miami University-Oxford	OXFORD POLICE DEPARTMENT	OH0090700	59234
Monmouth University	MONMOUTH UNIVERSITY	NJ0135500	79310
Monmouth University	WEST LONG BRANCH POLICE	NJ0135300	79310
Murray State University	MURRAY POLICE DEPARTMENT	KY0180100	54642
Murray State University	MURRAY STATE UNIVERSITY POLICE DEPARTMENT	KY0180200	54642
North Carolina State University at Raleigh	NORTH CAROLINA STATE UNIVERSITY DEPT. OF PUBLIC SA	NC0921600	55000
North Carolina State University at Raleigh	RALEIGH POLICE DEPARTMENT	NC0920100	55000
Northwestern University	EVANSTON POLICE DEPT	IL0163200	24582
Northwestern University	NORTHWESTERN UNIV:EVANST	IL0162W00	24582
Northwestern University	NORTWESTERN UNIVERSITY PD EVANSTON	IL0167D00	24582
Ohio State University-Main Campus	COLUMBUS POLICE DEPARTMENT	OHCOP0000	18000
Ohio State University-Main Campus	OHIO STATE UNIVERSITY POLICE DEPARTMENT	OH0252700	18000
Pennsylvania State University-Main Campus	PENN STATE UNIVERSITY POLICE SERVICES	PA0141100	78704
Pennsylvania State University-Main Campus	PENNSYLVANIA STATE UNIVERSITY - SCHUYLKILL POLICE	PA0545200	78704
Rollins College	WINTER PARK POLICE DEPARTMENT	FL0480600	78300
Rutgers University-New Brunswick	NEW BRUNSWICK POLICE	NJ0121400	51210
Rutgers University-New Brunswick	RUTGERS UNIVERSITY POLICE - NEW BRUNSWICK	NJ0123000	51210
San Diego State University	SAN DIEGO POLICE DEPARTMENT	CA0371100	66000
San Diego State University	SAN DIEGO STATE UNIVERSITY	CA0371400	66000
Texas State University	SAN MARCOS POLICE DEPARTMENT	TX1050100	65600
Texas State University	TEXAS STATE UNIVERSITY AT SAN MARCOS POLICE DEPART	TX1050300	65600
Tufts University	MEDFORD POLICE DEPARTMENT	MA0093000	39835
Tufts University	TUFTS UNIVERSITY:MEDFORD	MA0096400	39835
Tufts University	TUFTS UNIVERSITY:MEDFORD	MA009TU00	39835
University of California-Berkeley	BERKELEY POLICE DEPARTMENT	CA0010300	6000
University of California-Berkeley	LAWRENCE BERKELEY LAB PD UNIV OF CA BERKELEY	CA0012700	6000
University of California-Berkeley	UNIVERSITY OF CALIFORNIA - BERKELEY POLICE	CA0019700	6000
University of Central Florida	ORLANDO POLICE DEPARTMENT	FL0480400	53000
University of Central Florida	UNIVERSITY OF CENTRAL FLORIDA POLICE	FL0481400	53000
University of Idaho	MOSCOW POLICE DEPARTMENT	ID0290500	54550
University of Iowa	IOWA CITY POLICE DEPARTMENT	IA0520200	38595
University of Iowa	UNIVERSITY OF IOWA POLICE	IA0520400	38595
University of Kansas	LAWRENCE POLICE DEPARTMENT	KS0230100	38900
University of Kansas	UNIVERSITY OF KANSAS POLICE DEPARTMENT	KS0230200	38900
University of Michigan-Ann Arbor	ANN ARBOR POLICE DEPARTMENT	MI8121800	3000
University of Missouri-Columbia	COLUMBIA POLICE DEPARTMENT	MO0100200	15670
University of Missouri-Columbia	UNIVERSITY OF MISSOURI POLICE DEPT.	MO0100400	15670
University of New Mexico-Main Campus	ALBUQUERQUE POLICE DEPARTMENT	NM0010100	2000
University of New Mexico-Main Campus	UNIVERSITY OF NEW MEXICO POLICE DEPARTMENT	NM0010200	2000
University of North Florida	JACKSONVILLE CITY CNTY PD	FL0160200	35000
University of North Florida	UNIVERSITY OF NORTH FLORIDA POLICE	FL0160600	35000
University of Pittsburgh-Pittsburgh Campus	PITTSBURGH POLICE DEPARTMENT	PAPPD0000	61000
University of Pittsburgh-Pittsburgh Campus	UNIVERSITY OF PITTSBURGH - MAIN CAMPUS POLICE	PA0021N00	61000
University of Virginia-Main Campus	CHARLOTTESVILLE POLICE DEPT.	VA1020000	14968
University of Virginia-Main Campus	UNIVERSITY OF VIRGINIA POLICE DEPARTMENT	VA0020100	14968
Washington State University	PULLMAN POLICE DEPARTMENT	WA0380300	56625
Washington State University	WASHINGTON STATE UNIVERSITY POLICE DEPARTMENT	WA0380500	56625
West Virginia University	MORGANTOWN POLICE DEPARTMENT	WV0310100	55756
West Virginia University	WEST VIRGINIA UNIVERSITY POLICE DEPT.	WV0310600	55756

Table 3: Averages of the 34 universities' attributes over the years 2013-2018

	Mean	Std. Dev	Min	Median	Max
Rape	4.218	7.359	0.062	1.599	35.778
Area Population	191865.861	284516.152	8145.000	78228.000	1338477.000
Undergraduate Enrollment	22893.798	12214.875	2631.667	22494.250	55010.500
Graduation Rate	69.294	14.731	42.833	69.333	93.833
SAT Math 75th Percentile	648.477	70.379	531.667	648.333	793.333
SAT Reading 75th Percentile	634.396	56.573	528.333	638.333	763.333
Proportion Foreign	0.009	0.008	0.000	0.007	0.029
Proportion Full-time	0.871	0.097	0.603	0.893	0.987
Proportion Asian	0.066	0.072	0.008	0.042	0.351
Proportion Black	0.066	0.040	0.008	0.058	0.193
Proportion Hispanic	0.134	0.144	0.019	0.068	0.671
Proportion White	0.617	0.181	0.092	0.679	0.828

Table 4: Effects of Fraternity Moratoriums on Inverse Hyperbolic Sine of Cleared Rape Reports

	Full Sample		University Police Only	
	(1)	(2)	(1)	(2)
Moratorium	0.087	0.037	0.061	0.060
	(0.059)	(0.046)	(0.082)	(0.063)
University Enacted	-0.078	-0.106	0.006	0.009
	(0.070)	(0.065)	(0.049)	(0.048)
Moratorium x University Enacted	0.013	0.093	-0.058	-0.046
	(0.121)	(0.101)	(0.099)	(0.083)
Graduation Rate		-0.014***		-0.004
		(0.005)		(0.005)
Undergrad Proportion Asian		1.756		-0.652
		(2.412)		(1.252)
Undergrad Proportion Black		2.309		-0.871
		(4.139)		(2.817)
Undergrad Proportion Hispanic		-3.559		-0.011
		(2.144)		(1.634)
Undergrad Proportion White		-0.856		0.012
		(1.304)		(0.577)
Proportion Foreign		2.687		3.983**
		(2.635)		(1.595)
Proportion Full-time		1.562***		0.029
		(0.480)		(0.199)
Num.Obs.	5040	4728	2592	2388
R2	0.611	0.590	0.217	0.151
R2 Adj.	0.578	0.574	0.102	0.095
Cluster vars	university	university	university	university
FE: month_by_year	X	X	X	X
FE: ori	X	X	X	X
FE: university	X	X	X	X
FE: university_by_year	X		X	

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table 5: Effects of Fraternity Moratoriums on Per-capita Rape

	Full Sample				University Police Only			
	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
Moratorium	-6.463e-07	1.013e-06	-1.304e-05**	-1.118e-05**	-4.742e-07	3.038e-07	-1.543e-05**	-1.436e-05**
	(1.132e-05)	(1.160e-05)	(5.355e-06)	(5.090e-06)	(1.334e-05)	(1.347e-05)	(5.787e-06)	(6.007e-06)
University Enacted	-2.496e-07	1.005e-06	-5.986e-07	3.618e-07	9.030e-06	9.382e-06	8.898e-06	9.234e-06
	(8.027e-06)	(8.497e-06)	(7.732e-06)	(8.229e-06)	(1.144e-05)	(1.185e-05)	(1.115e-05)	(1.154e-05)
Moratorium x University Enacted	-3.079e-06	-7.110e-06	9.630e-06	6.333e-06	-4.589e-06	-6.883e-06	9.753e-06	7.511e-06
	(1.601e-05)	(1.695e-05)	(1.139e-05)	(1.214e-05)	(2.035e-05)	(2.119e-05)	(1.575e-05)	(1.673e-05)
Graduation Rate		-5.277e-07	-3.826e-07	-5.635e-07		-6.000e-07	-5.115e-07	-6.290e-07
		(4.189e-07)	(4.282e-07)	(4.310e-07)		(6.245e-07)	(6.217e-07)	(6.538e-07)
Undergrad Proportion Asian		1.767e-04	6.651e-05	1.672e-04		6.651e-05	9.621e-07	7.738e-05
		(2.838e-04)	(2.869e-04)	(2.892e-04)		(3.958e-04)	(3.958e-04)	(3.975e-04)
Undergrad Proportion Black		2.490e-04	2.837e-04	2.505e-04		6.484e-05	7.638e-05	9.531e-07
		(2.248e-04)	(2.146e-04)	(2.189e-04)		(2.636e-04)	(2.723e-04)	(2.558e-04)
Undergrad Proportion Hispanic		1.274e-05	7.431e-05	8.746e-05		-1.283e-04	-1.185e-04	-1.225e-04
		(1.485e-04)	(1.593e-04)	(1.548e-04)		(1.809e-04)	(1.847e-04)	(1.837e-04)
SAT Math 75th Percentile		-9.970e-08		-1.155e-07		-1.011e-07		-7.947e-08
		(6.298e-08)		(7.281e-08)		(9.640e-08)		(1.005e-07)
SAT Reading 75 Percentile		1.156e-07		1.199e-07		1.091e-07*		8.645e-08
		(7.644e-08)		(8.405e-08)		(5.868e-08)		(5.674e-08)
Undergrad Proportion White		3.098e-05	5.005e-05	7.577e-05		-1.612e-05	-2.849e-05	-3.777e-05
		(7.810e-05)	(9.726e-05)	(9.234e-05)		(1.363e-04)	(1.369e-04)	(1.342e-04)
Proportion Full-time		-3.053e-05	-5.618e-06	-2.292e-05		-8.548e-06	3.186e-05	1.834e-05
		(4.393e-05)	(4.132e-05)	(4.122e-05)		(4.486e-05)	(3.513e-05)	(3.546e-05)
Proportion Foreign			7.271e-05	3.548e-04			-4.912e-04	-3.721e-04
			(3.051e-04)	(3.169e-04)			(5.130e-04)	(5.272e-04)
Num.Obs.	5390	5162	5080	4852	2803	2719	2600	2516
R2	0.100	0.100	0.104	0.105	0.119	0.121	0.138	0.138
R2 Adj.	0.081	0.079	0.083	0.082	0.084	0.082	0.098	0.097
Cluster vars	university	university	university	university	university	university	university	university
FE: date	X	X	X	X	X	X	X	X
FE: university	X	X	X	X	X	X	X	X

* p < 0.1, ** p < 0.05, *** p < 0.01

Table 6: Effects of Fraternity Moratoriums on Inverse Hyperbolic Sine Rape

	Full Sample				University Police Only			
	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
Moratorium	-0.095	-0.070	-0.227***	-0.204**	-0.079	-0.055	-0.228**	-0.212*
	(0.187)	(0.139)	(0.082)	(0.082)	(0.176)	(0.146)	(0.109)	(0.112)
University Enacted	0.097	0.051	0.038	0.038	0.131	0.075	0.068	0.073
	(0.116)	(0.120)	(0.111)	(0.117)	(0.137)	(0.144)	(0.138)	(0.142)
Moratorium x University Enacted	-0.082	-0.138	0.072	0.024	-0.042	-0.046	0.140	0.108
	(0.263)	(0.222)	(0.165)	(0.176)	(0.250)	(0.235)	(0.197)	(0.208)
Graduation Rate		-0.008	-0.003	-0.007		-0.009	-0.007	-0.008
		(0.006)	(0.006)	(0.006)		(0.009)	(0.009)	(0.009)
Undergrad Proportion Asian		2.695	0.184	2.571		2.103	0.997	1.970
		(4.866)	(4.819)	(4.727)		(5.189)	(4.745)	(4.853)
Undergrad Proportion Black		10.148	11.281*	11.465*		5.552	6.227	5.003
		(6.535)	(6.055)	(6.723)		(4.516)	(5.007)	(4.938)
Undergrad Proportion Hispanic		-0.473	-0.076	0.854		-3.608	-3.522	-3.536
		(2.847)	(3.511)	(2.959)		(3.124)	(3.273)	(3.266)
Undergrad Proportion White		1.927	1.690	2.841		-0.390	-0.749	-0.896
		(1.487)	(2.199)	(1.812)		(1.965)	(1.788)	(1.731)
SAT Math 75th Percentile		-0.001*		-0.002**		-0.001		-0.001
		(0.001)		(0.001)		(0.001)		(0.001)
SAT Reading 75 Percentile		0.002		0.002		0.001		0.001
		(0.002)		(0.002)		(0.001)		(0.001)
Proportion Full-time		-1.161	-0.657	-1.113		-0.502	-0.023	-0.196
		(0.884)	(0.910)	(0.904)		(0.627)	(0.528)	(0.513)
Proportion Foreign			-0.349	7.016			-9.380	-7.998
			(6.673)	(4.762)			(7.639)	(7.900)
Num.Obs.	5031	4803	4721	4493	2588	2504	2385	2301
R2	0.693	0.683	0.676	0.685	0.311	0.256	0.254	0.257
R2 Adj.	0.667	0.670	0.663	0.671	0.210	0.210	0.205	0.207
Cluster vars	university	university	university	university	university	university	university	university
FE: month_by_year	X	X	X	X	X	X	X	X
FE: ori	X	X	X	X	X	X	X	X
FE: university	X	X	X	X	X	X	X	X
FE: university_by_year	X				X			

* p < 0.1, ** p < 0.05, *** p < 0.01

RISE ABOVE

Candidates for Membership

Sigma Alpha Epsilon Member Onboarding Handout

Expectations of a Member

As a member of the Fraternity, there are certain things that are expected of you. Every member of the chapter must complete the following 7 expectations each semester:

1. **You must maintain a minimum GPA of 2.5 or higher (as specified by the chapter's bylaws)**
   i. Our chapter's minimum GPA is _____
   ii. First and foremost, you are here to graduate from this school
   iii. GPAs are reviewed each semester

2. **You must be involved in at least one additional campus or community organization (The member educator can help you find involvement opportunities)**
   i. Proof of involvement is required each semester

3. **You must complete at least 85% of educational assignments throughout the year**
   i. We host weekly educational sessions at chapter meeting for all members

4. **You must attend at least 75% of chapter Ritual events**
   i. Initiations, graduation ceremonies, and installation of officers

5. **You must be financially current or on an approved payment plan**
   i. Your initiation fee is $310 and semesterly dues are _____

6. **You must complete a minimum of 20 service hours per academic year (The member educator can help you find service opportunities)**

7. **You must attend at least 85% of chapter meetings**
   i. Your attendance will be tracked during roll call each week

Add any additional expectations your chapter might have for ALL members

Figure 1: The fraternity chapter, Sigma Alpha Episilon, guidelines for members.

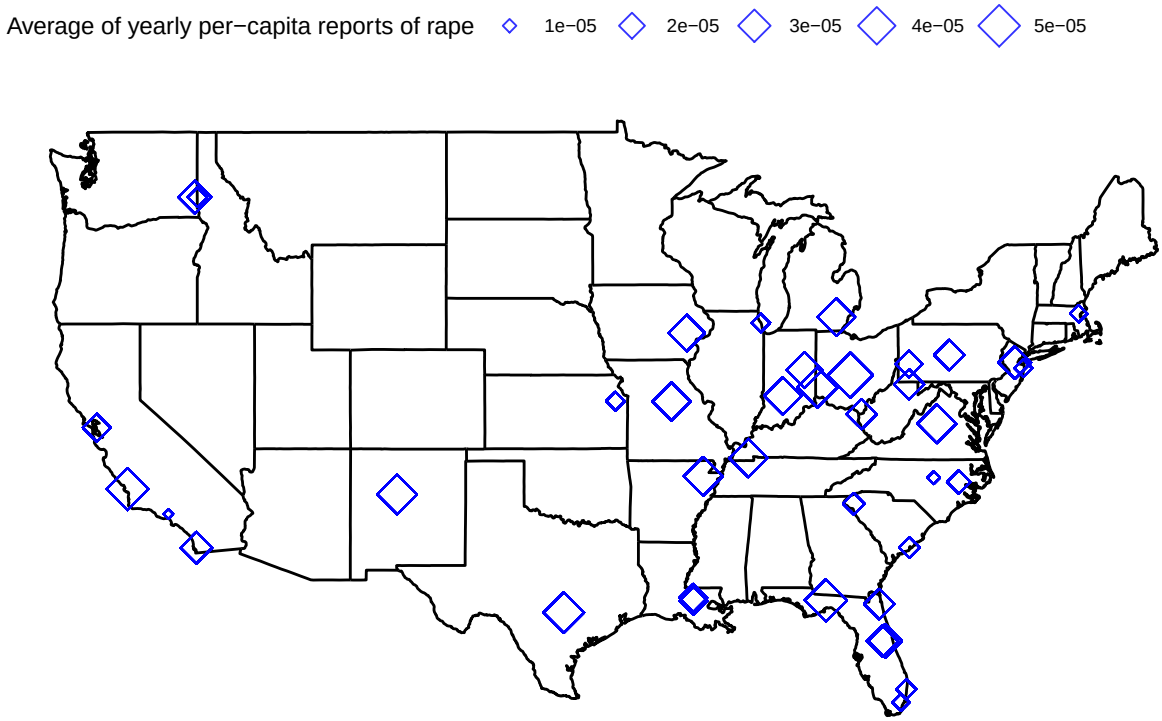


Figure 2: Distribution of fraternity moratoriums in the sample from years 2013-2018. Each dot represents the average of yearly per-capita reports of rape by the jurisdictions serving the universities.

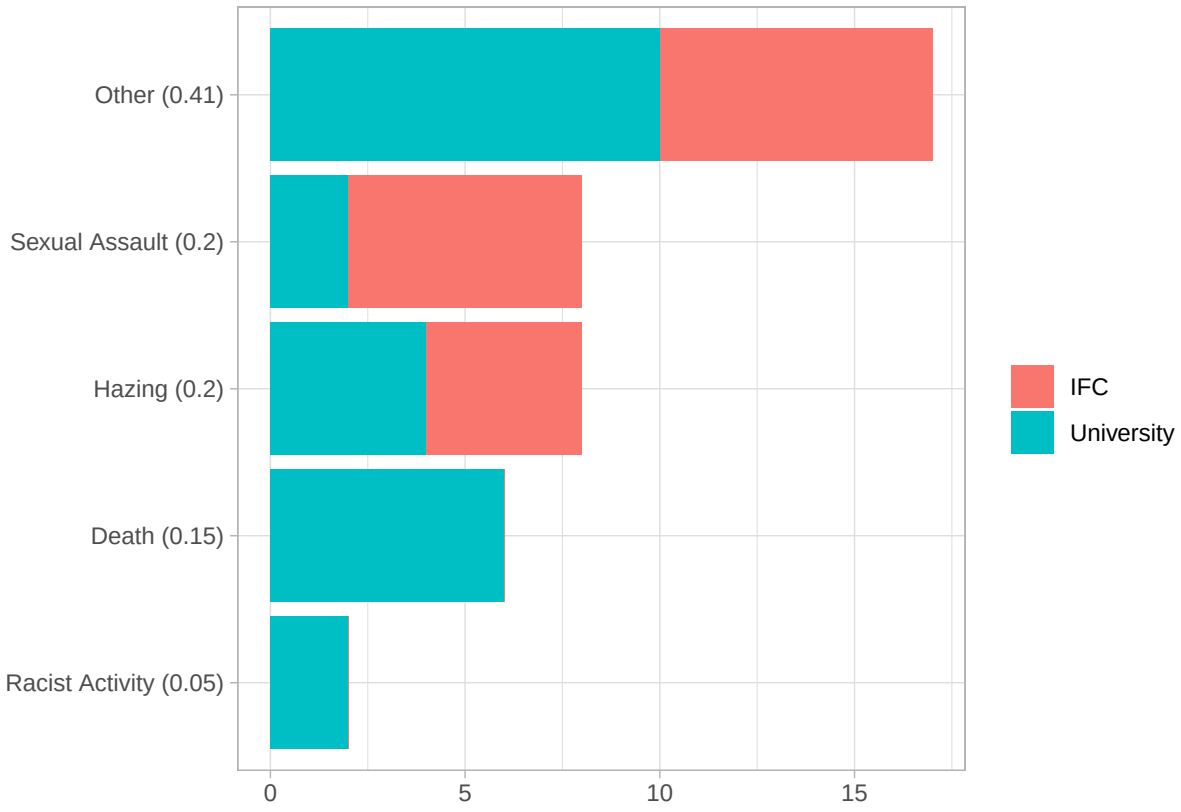


Figure 3: Distribution of triggering events for university moratoriums. The *Other* category represents triggering events such as alcohol violations, re-evaluation due to national trends, and unspecified rule violations.

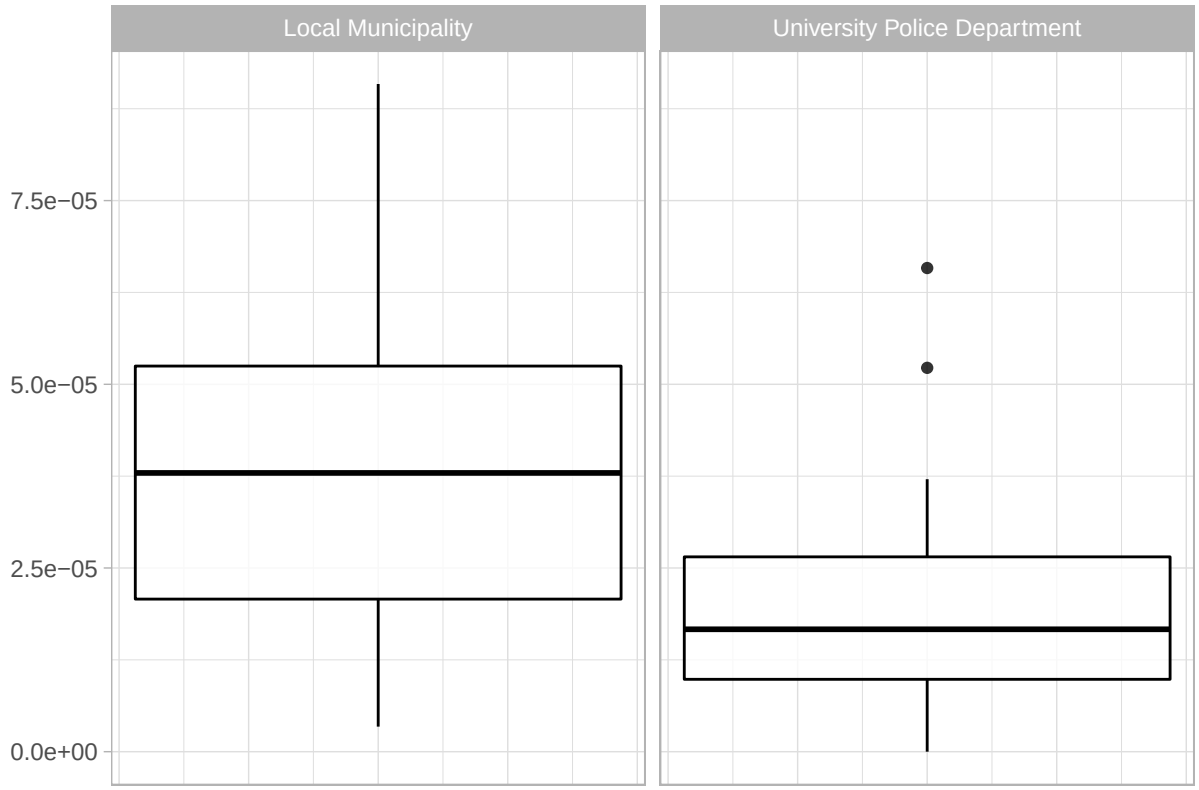
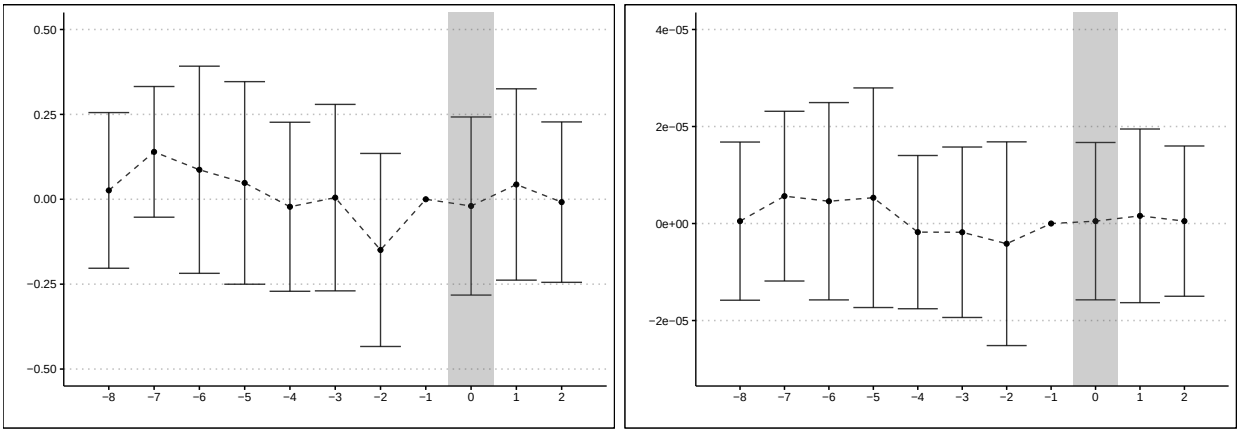


Figure 4: Distribution of per-capita reports of rape by type of police municipality.



(a) Inverse-sine (b) Per-capita rape

Figure 5: Event study showing 8 months prior and 2 months post moratorium.