

Fraternities Update

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Abstract

Fraternities remain a ubiquitous, and longstanding tradition across the US with chapters maintaining a presence at over 800 universities and some existing since the mid-1800s. While fraternity membership has positive outcomes, it has also been linked to high rates of alcohol, partying, and toxic masculinity. In this paper, I exploit the variation from temporary university-wide halts on all fraternity activity with alcohol (moratoriums) across 38 universities. I construct a novel data set using webscraping, pdf extracting, and Freedom of Information Act requests to present the first causal evidence of what could happen across university campuses if fraternities were prohibited from serving alcohol at social events and faced stricter regulations. In particular, I find strong and robust evidence that fraternity moratoriums lower alcohol violations campus-wide by 25%. These effects are driven by large decreases on the weekends rather than weekdays and when a university enforces the moratorium rather than the fraternity members themselves. Moreover, I find weak evidence that moratoriums decrease reports of sexual assault on the weekends and when moratoriums are triggered by sexual assault allegations.

1 Main Goal of Update

The main goal of this update is to get feedback on a restructuring of the previous paper I wrote back in August. I have not started rewriting. Instead, I want to restructure the paper based on tables/figures that I find to be particularly interesting. So for this update, I wanted to present a reworking of the main tables and some new additional tables so that I can have some guidance in what to include/what is missing.

One of the main points of feedback from last time was that the paper should be sold as a different story. Previously, I sold the paper as a “what would happen if fraternities were regulated stronger?” whereas I have been told a better direction could be “what role do fraternities play in the underage drinking problem at universities?” so that I could more directly connect it to the college alcohol literature. To spin this new story, I needed to look into the mechanisms of my previous results more. In particular, I analyzed two official data sets: The Campus Safety and Security Data and the National Incidence Based Reporting System (NIBRS) to drill into the mechanisms. However, each of these data sets have massive downfalls compared to the novel data that I constructed using Daily Crime Logs, so I want to bring them in as supplemental evidence, not primary evidence.

Furthermore, a second aspect of the paper that many found confusing was the sample construction. For instance, why did I choose to have some never-treated universities that experienced a fraternity death? After several iterations of messing with the sample, I decided that the 38 universities that experience a moratorium are the best sample I can get. Hence, my main specifications will be comparing universities that have are currently undergoing a moratorium to universities that **will** or **already have** undergone a moratorium.

For those of you who like lists, here’s a list of updates:

- As secondary evidence, I am using two new data sets: NIBRS and Campus Safety and Security Data.
- I have reduced the main sample to only 38 universities that eventually experience a moratorium.
- Using the Campus Safety and Security Data, I look into a substitution effect: if alcohol violations are decreasing campus-wide, where is this activity going? What does this mean for sexual assaults?
- Using the NIBRS data, I look into the age groups that are affected by these moratoriums. In particular, are reports of rape by college-aged individuals decreasing during moratoriums?
- I look into the “shock mechanism” surrounding universities that experienced a moratorium due to a fraternity death. Is the moratorium the reason why we see decreases in alcohol or is it simply because a death “shocks” the school into changing behaviors. For this, I use a newly constructed sample that consists of the 10 universities that undergo a moratorium because of a fraternity death occurrence, and 15 other schools that do not undergo a moratorium, but have a fraternity death.

Main feedback wanted:

- Interested in your opinion on which version of the new main results I should choose. In particular, I have Table 7 and Table 8. However, I can combine them to make Table 9. Readability matters, but also keeping everything on the same page is nice as well- which one does everyone prefer?
- I put in some new evidence of crime that is decreasing during moratoriums for other outcomes (drug offenses, thefts). While it’s interesting, I am not sure if I should go down the road of showing all of these results because I’ll start getting multiple hypothesis questions.
- What tables/figures are still missing? Right now, I feel like this project is running out of things to try (aside from those new estimators that are robust to heterogeneous treatment effects). If everyone could read through the tables and figures and let me know if some need reworking or I am missing crucial information, then this would be super helpful!
- What tables/figures are extraneous? Happy to delete anything that really doesn’t paint a picture.
- What do you think of the new sample selection? To me, this sample makes the most sense and is the most clear (38 universities, all of which are eventually treated).
- The Campus Safety and Security results...are these shooting myself in the foot? Or are these believable?
- Any papers that could be useful to give me ideas on how to construct the final paper.
- General advice on writing the Results section of a paper. Last time I wrote the draft, I felt like I was simply describing the tables. How much “this could be because...” can I write in? How much should be written as a matter of fact?

Last things on my “things to do”:

- Since the Campus Safety and Security data showed some promising results, I wanted to see if I could get some of this data at a more granular level. As a test, I inputted in 2 Freedom of Information Act requests to a couple schools to see if I can get liquor violations and sexual assault violations from residence halls with the accompanying data-of-report/date-of-occurrence. I was not rejected initially from one of the schools, but have not received any data back (FOIAs take a very long time to get processed).
- Use one of the new diff-in-diff estimators. Since I have a non-staggered design (e.g., treatment lengths differ and units go in and out of treatment) I need to meet with Clement to see if his estimator is appropriate.

2 The New Data and Accompanying Results

As mentioned above, my main analysis is still using the Daily Crime Logs that I gathered. I consider these to be the best source of data I have, and one of my main contributions to the literature. However, I use two more data sources that have some minor enhancements over the Daily Crime Logs which I describe next.

2.1 Campus Safety and Security Data

The Campus Safety and Security Data, similar to the Daily Crime Logs, are enforced by the Jeanne Clery Act. Any schools receiving federal funding must report **calendar-yearly-level** statistics on a number of crimes. For my purposes, the crimes I use are:

- Rape, fondling, incest, statutory rape - combined together to form “sexual assault” to mitigate the multiple hypothesis issue.
- Liquor disciplinary violations
- Drug disciplinary violations (unsure if I want to keep these)

The main benefit of the Campus Safety and Security Data is that they are official (no matching algorithm needed to bin specific crimes), and more importantly, they contain general location information. For instance, I am able to delineate between a rape or liquor violation that occurred in the following locations:

- Noncampus - Any building or property owned or controlled by a student organization that is officially recognized by the institution; or (2) Any building or property owned or controlled by an institution that is used in direct support of, or in relation to, the institution’s educational purposes, is frequently used by students, and is not within the same reasonably contiguous geographic area of the institution.
- Residential Hall - Any student housing facility that is owned or controlled by the institution, or is located on property that is owned or controlled by the institution, and is within the reasonably contiguous geographic area that makes up the campus is considered an on-campus student housing facility.
- On Campus (Total) - Any building or property owned or controlled by an institution within the same reasonably contiguous geographic area and used by the institution in direct support of, or in a manner related to, the institution’s educational purposes, including residence halls; and (2) Any building or property that is within or reasonably contiguous to paragraph (1) of this definition, that is owned by the institution but controlled by another person, is frequently used by students, and supports institutional purposes (such as a food or other retail vendor).
- Public Property - All public property, including thoroughfares, streets, sidewalks, and parking facilities, that is within the campus, or immediately adjacent to and accessible from the campus.

For my purposes, the most beneficial categories to me are residential halls and noncampus offenses. For example, it could be that fraternity moratoriums cause a substitution towards behaviors off campus or into residence halls. On the other hand, residence halls are mainly younger students and their amount of partying might be relatively inelastic when it comes to moratoriums.

The main (and really terrible) downfall of this data is that I only have aggregated *calendar year* statistics. Given that moratoriums are an average of 90 days, this attributes to only 25% of an entire year being treated on average. This also presents some difficulties: how can I check for pretrends with an event study when a school is treated within 2 years for small periods of time? This gets even more messy since there are multiple schools that are treated multiple times over 2014-2019. Hence, a treated university may be treated in a small fraction of 4 out of the 6 years. Any event study would be pretty meaningless. Moreover, since the sample timeline is only 2014-2019 (6 years) this gives me an insufficient amount of data to look at the trends. While I *could* go back and get more years, rapes are not included in before year 2014, making this difficult to compare.

2.1.1 Campus Safety and Security Regressions

As explained earlier, I wanted to analyze if there is any substitution effect of where undergraduates party or consume alcohol when fraternity parties are temporarily unavailable. Partying may be an inelastic good for undergraduates, and if fraternity parties are unavailable, it's likely they will simply move their risky behaviors elsewhere. All of the regressions using this data will be of the following form:

$$Y_{u,t} = \beta \text{Moratorium}_{u,t} + \gamma_u + \phi_t + \epsilon_{u,t}$$

where $Y_{u,t}$ is the outcome of interest in university u in year t , $\text{Moratorium}_{u,t}$ is a value between 0 and 1 which denotes the fraction of days treated in a year, γ_u are university fixed effects and ϕ_t are year fixed effects.

Table 15 shows the main results of these regressions. There are several interesting things to point out:

- When comparing the full sample of the Campus Safety and Security and the Daily Crime Logs, I find opposite effects: alcohol offenses substantially increase when using the Campus Safety and Security Data, yet significantly decrease when using the Daily Crime Logs.
 - **Explanation:** while this seems like a red-flag, it actually makes a lot of sense once I break down the Campus Safety and Security Data into “Residence Hall” and “Noncampus” offenses. In particular, the residence halls are the main contributor to this large increase. This is where understanding the data is important - Daily Crime Logs are *police reports* of alcohol offenses. Since alcohol offenses in residence halls are handled internally (e.g., an underage student found with alcohol is not going to be reported to the police), it makes sense that there is a spike in alcohol offenses in the residence halls, but a decrease in police reports. Additionally, this means that underage drinkers are substituting away from fraternity parties and into residence halls. Now the real question is: are these residence halls safer places to drink than fraternity parties (see next bullet point)?
- Sexual assaults actually decrease in residence halls during moratoriums, while liquor violations increase. At first thought, this might seem like an inconsistency as we would expect more alcohol to lead to more sexual assaults.
 - **Explanation:** this has to do with the riskiness of the setting. Residence halls are generally manned by multiple overseers that stop parties that are getting too loud/rowdy. Hence, these overseers are actually stopping drinking behavior before it gets too dangerous. However, wouldn't we expect a “zero” instead of a significant decrease? Maybe, but more parties also attracts more overseers and brings more attention to settings that may be risky.

2.2 NIBRS

The National Incidence Based Reporting System (NIBRS) is a federal data set that is collected by the FBI. It contains **daily-level** data on crimes. Here are some of the main benefits:

- A ton of information on the victim of the crime/offender of the crime including age, relationship to perpetrator, motivation for crime, and general location.

Despite these benefits, there are huge downfalls to this data which make it only suitable for secondary analysis (if that). The downfalls are:

- Agencies report voluntarily, and most never report. Once I observed the data, I found only 14/38 university police stations that reported consistently over 2014-2019.
- Alcohol offenses are not included in this data unless the perpetrator is *arrested*. Since college students are hardly ever arrested for a liquor violation, this is a terrible proxy for my question.

2.2.1 NIBRS Regressions

The results of these regressions can be found in Table 16. The specification for this table is the following:

$$Y_{u,t} = \beta \text{Moratorium}_{u,t} + \gamma_{u,\text{semester}} + \alpha_{\text{weekday}} + \epsilon_{u,t} \quad (1)$$

where $Y_{u,t}$ is college-aged sexual assault. I define college-aged sexual assault as the combination of rape, statutory rape, fondling, and sexual assault with an object for individuals aged 17-22. I changed this age cutoff multiple times and the results remain the same. As shown in Table 16, there appears to be no significant effect. However, this is likely due to power issues. I could only include 14 university police departments that report to the NIBRS on a consistent basis in the sample time frame.

Additionally, I also use a similar method as [Lindo, Siminski, and Swensen \(2018\)](#), where I take both police departments that serve universities and the university police department themselves and combine. These results are shown in Table 17. The results do not change much, although these results suffer from the same issues as discussed above.

3 Updates to Old Stuff

In the sections below, I made some major changes to some tables/figures. I'll do my best to specify the differences between these and the old versions.

3.1 New Main Regression Tables

I wanted to show the robustness of my results by using different combination of time fixed effects. Previously, I was only using university-by-semester-number fixed effects in the main results table. This time, I did various combinations of the following fixed effects:

- day-of-week - these fixed effects are indicators for each day of the week (e.g., 6 total, 1 omitted to avoid dummy variable trap). These fixed effects should absorb any large differences in reporting between days of the week. For instance, if Saturdays consistently have more reports of alcohol offenses than Mondays, this difference will be adjusted for.
- year - these fixed are indicators for each year of the sample (2014-2019, although 1 year omitted to avoid dummy variable trap). These fixed effects, should control for any large differences in reporting between years. For example, if 2014 and 2015 the police agencies had staff that were more active and reported more crimes, this would be controlled for.
- university - these fixed effects control for the differences between universities. Considering that universities have different methods and strictness on their alcohol regulations, and their police forces are likely trained differently, this should take away the time-invariant differences in these universities.
- semester-number - to clarify what these are, these are fixed effects accounting for each semester in the sample. Since there are 6 years, there are twelve semesters. I put an indicator on 11 of these.
- university-by-semester-number - these fixed effects are a combination of university and semester-number. These are created by grouping by university and semester number, then creating a unique identifier for each. These fixed effects allow for the estimates to be identified by a comparison of reports to a university police department during a moratorium day compared to other days while controlling for changes that are expected during a semester.

These fixed effects are similar to what is shown in [Lindo, Siminski, and Swensen \(2018\)](#), given that their empirical strategy is somewhat similar to mine although they utilize football-game-day variation for their identification. Results can be shown in Tables 7 and 8, while a combination of the two previous tables is shown in Table 9. I am interested in which table you prefer to view. Each of the tables shows four specifications with different time-fixed effects to allow for some flexibility. The preferred specification is (3) which includes day-of-week, year, and university-by-semester-number fixed effects (although specification (4) is nearly identical). Given the count-nature of the data (and the large number of zeros), I also estimate the models using poisson regressions. The results remain similar in magnitude and interpretation: alcohol offenses decline by approximately 28% in the full sample and 31% on the weekends, while sexual assault decreases by 32% on the weekends. There is no significant decline in alcohol or sexual assaults during weekdays.

4 Other Additions

4.1 Exploring the “shock” mechanism

In Table 12, I found that moratoriums that are triggered by deaths have stronger effects on alcohol offenses. One of the main concerns here is that behavior is changing because of a “death shock” rather than the moratorium itself. In other words, it may be that students are changing behavior because they are shocked from a death and are now behaving differently rather than the moratorium changing their behavior. To explore this, restrict the sample to only universities that experience a moratorium triggered by a death (10 universities). Additionally, I include 15 “never-treated” universities that experience a fraternity-related death, but never undergo a moratorium as another control group. The idea here is that if it is the “shock” causing alcohol violations to decrease rather than the moratorium, then there should be no effect of the moratorium when comparing these schools. However, this is not the case: Table 18 shows the effects split by full sample, weekends, and weekdays. It appears that moratoriums still have a significant effect (columns (3) and (4)) in the full sample and on the weekends.

4.2 New Figure

I have now included a new figure (Figure 4) which shows the distribution of moratoriums over the time period.

5 Figures



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



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



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



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



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



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



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



Add any additional expectations your chapter might have for ALL members

Figure 1: Sigma Alpha Epsilon Member Expectations. Sigma Alpha Epsilon is a famous, and longstanding IFC Fraternity.

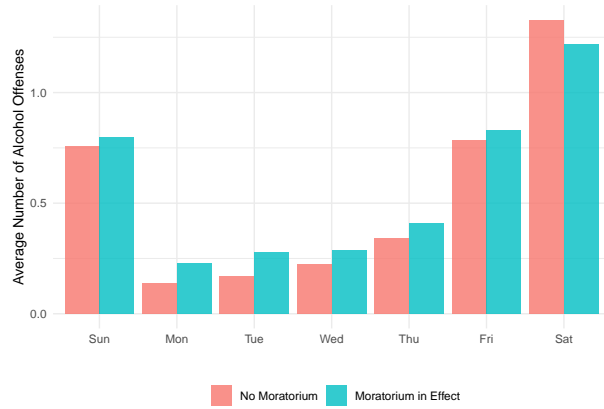
Indiana University, Bloomington
Police Department
Student Right To Know CAD Daily Log

From Jan 20, 2014 to Jan 20, 2014.

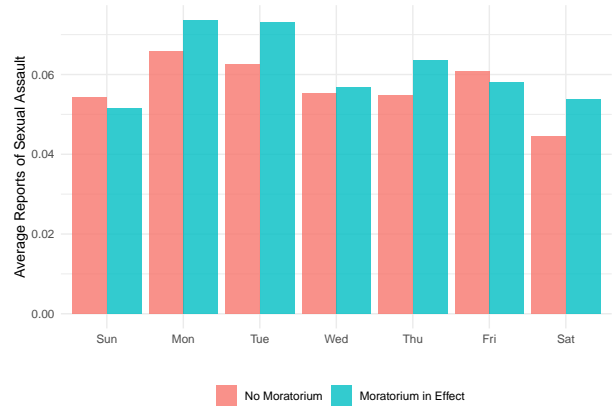
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Date and Time Occurred From - Occurred To		
Incident : NARCOTIC/DRUG LAWS - POSSESSION - MARIJUANA		Report #:
Disposition: FAILED TO LOCATE		
Date Reported: 01/20/14 - MON at 17:03	Location : ALL OTHER ROADWAYS/INTERS	Event #: 14-01-20-001446
Date and Time Occurred From - Occurred To 01/20/14 - MON at 17:02 - 01/20/14 - MON at 17:03		
Incident : NARCOTIC/DRUG LAWS - POSSESSION - MARIJUANA		Report #: 140154
Disposition: CLOSED BY ARREST		
Date Reported: 01/20/14 - MON at 19:30	Location : EIGENMANN HALL	Event #: 14-01-20-001464
Date and Time Occurred From - Occurred To		
Incident : NARCOTIC/DRUG LAWS - POSSESSION - MARIJUANA		Report #:
Disposition: FAILED TO LOCATE		
Date Reported: 01/20/14 - MON at 20:22	Location : EIGENMANN HALL	Event #: 14-01-20-001466
Date and Time Occurred From - Occurred To		
Incident : NARCOTIC/DRUG LAWS - POSSESSION - MARIJUANA		Report #:
Disposition: FAILED TO LOCATE		
Date Reported: 01/20/14 - MON at 20:45	Location : FOSTER HARPER HALL	Event #: 14-01-20-001468
Date and Time Occurred From - Occurred To		
Incident : NARCOTIC/DRUG LAWS - POSSESSION - MARIJUANA		Report #:
Disposition: FAILED TO LOCATE		
Date Reported: 01/20/14 - MON at 21:38	Location : ALL OTHER NON-UNIVERSITY	Event #: 14-01-20-001476
Date and Time Occurred From - Occurred To		
Incident : ALL OTHER OFFENSES - HARASSMENT/INTIMIDATION		Report #:
Disposition: NO CASE REPORT		
Date Reported: 01/20/14 - MON at 21:53	Location : ROSE AVE RESIDENCE HALL	Event #: 14-01-20-001479
Date and Time Occurred From - Occurred To		
Incident : NARCOTIC/DRUG LAWS - POSSESSION - MARIJUANA		Report #:
Disposition: FAILED TO LOCATE		
Date Reported: 01/20/14 - MON at 22:30	Location : COLLINS COMMON AREA	Event #: 14-01-20-001486
Date and Time Occurred From - Occurred To		
Incident : NARCOTIC/DRUG LAWS - POSSESSION - MARIJUANA		Report #:
Disposition: FAILED TO LOCATE		
Date Reported: 01/20/14 - MON at 23:02	Location : FOREST QUAD	Event #: 14-01-20-001487
Date and Time Occurred From - Occurred To 01/20/14 - MON at 22:45 - 01/20/14 - MON at 23:02		
Incident : NARCOTIC/DRUG LAWS - POSSESSION - MARIJUANA		Report #: 140157
Disposition: CLOSED NO ARREST.		
Date Reported: 01/20/14 - MON at 23:07	Location : FOSTER JENKINSON HALL	Event #: 14-01-20-001491
Date and Time Occurred From - Occurred To		
Incident : NARCOTIC/DRUG LAWS - POSSESSION - MARIJUANA		Report #:
Disposition: FAILED TO LOCATE		
Date Reported: 01/20/14 - MON at 23:35	Location : ALL OTHER OPEN AREAS	Event #: 14-01-20-001494
Date and Time Occurred From - Occurred To 01/20/14 - MON at 23:35 - 01/20/14 - MON at 23:41		
Incident : ASSAULT - OTHER ASSAULTS - SIMPLE, NOT AGGRAVATED		Report #: 140159
Disposition: CLOSED BY ARREST.		

11 Incidents Listed.

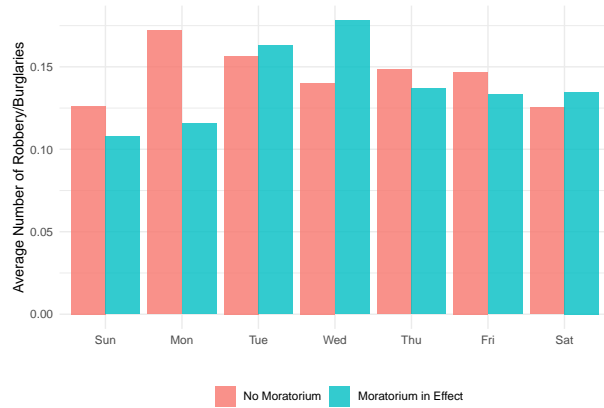
Figure 2: An example of a Daily Crime Log.



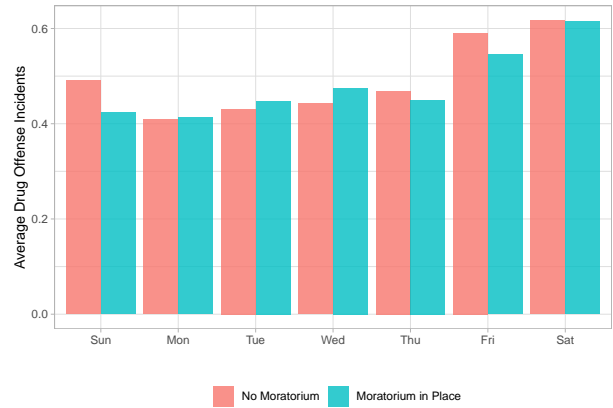
(a) Alcohol Offenses



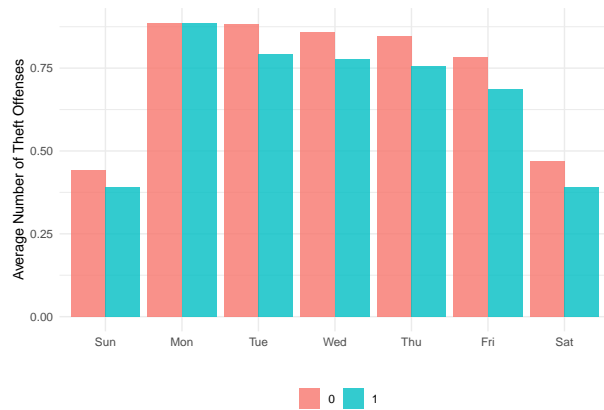
(b) Sexual Assault



(c) Robbery/Burglary



(d) Drug Offenses



(e) Theft

Figure 3: Distribution of the average counts of crime by day of the week.

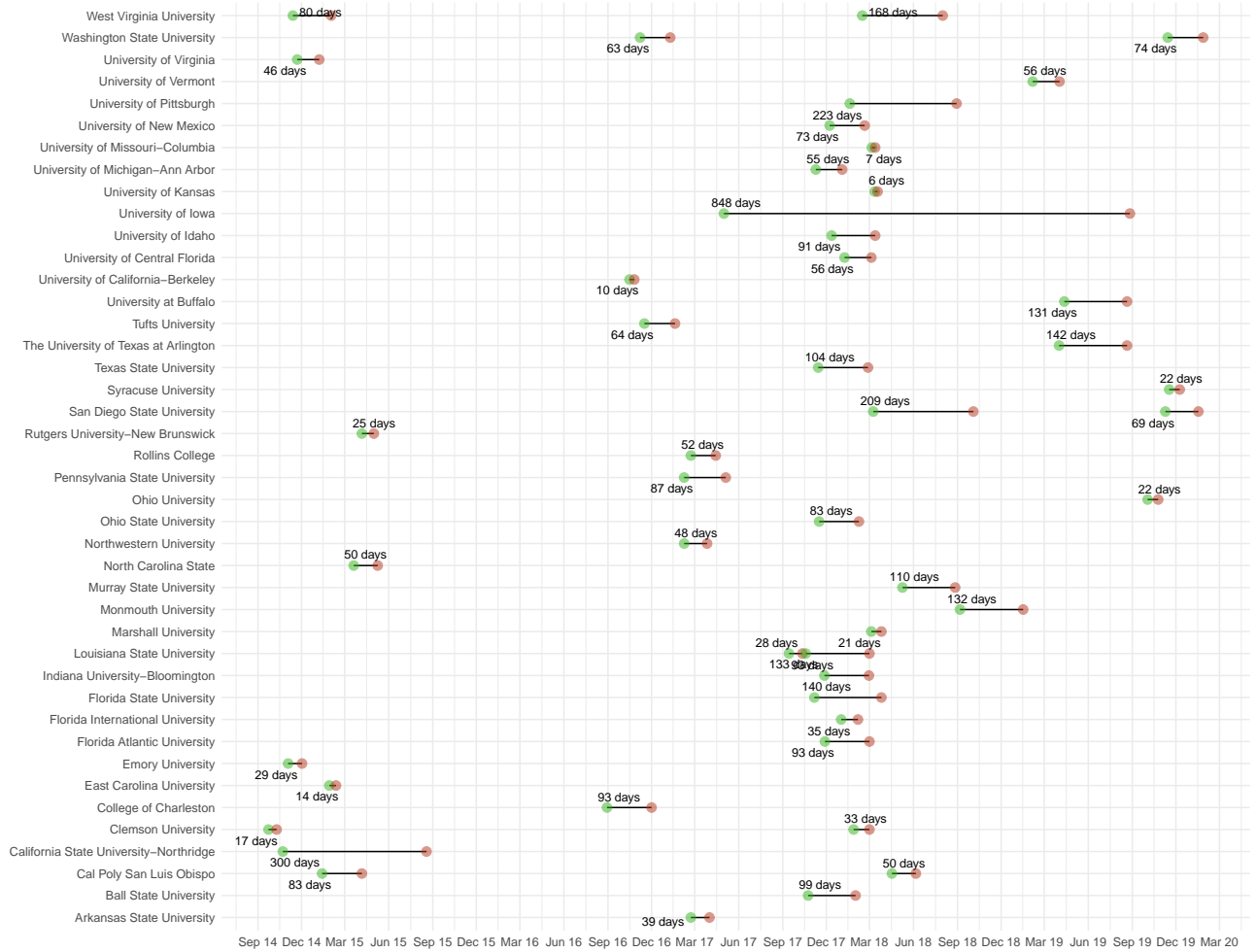


Figure 4: Distribution of the moratoriums for each of the 38 schools.

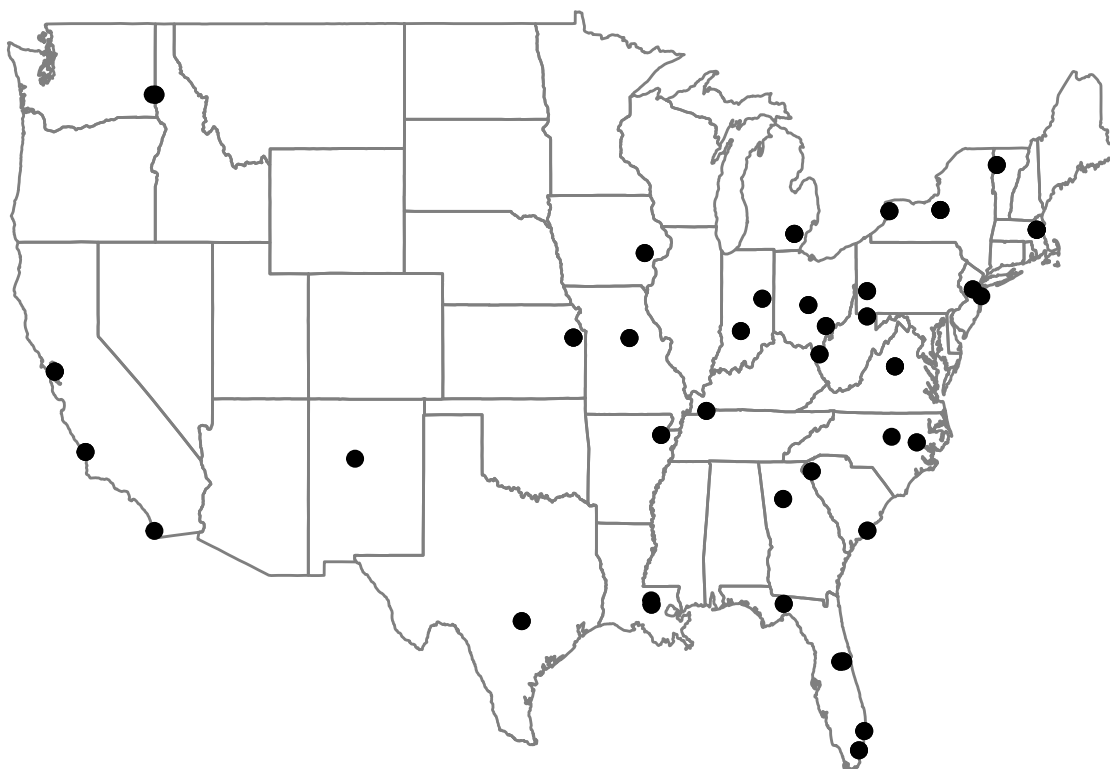


Figure 5: Map of the 38 universities included in the sample that experienced a fraternity moratorium.

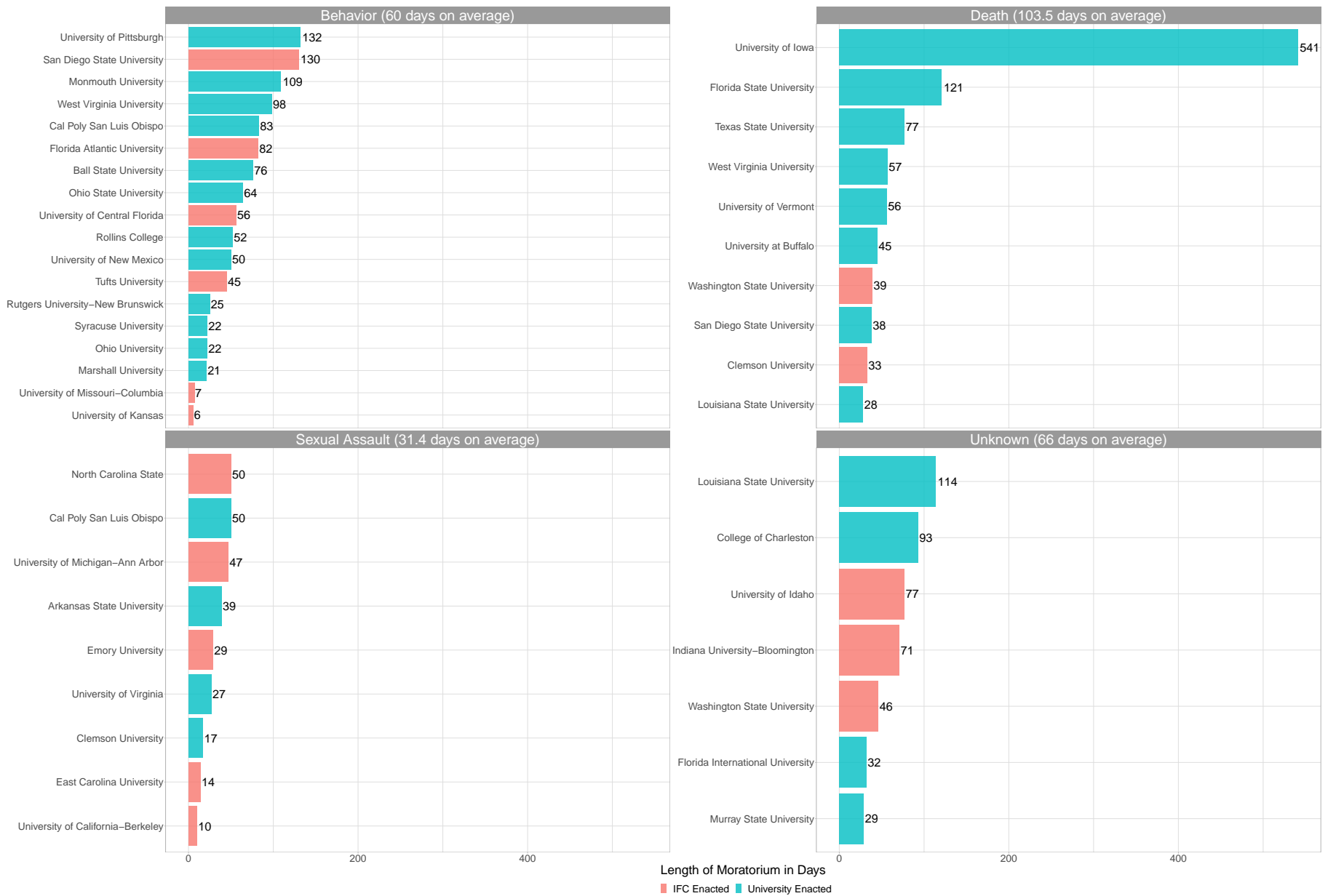


Figure 6: Average number of academic calendar days under moratorium by triggering event of moratorium.

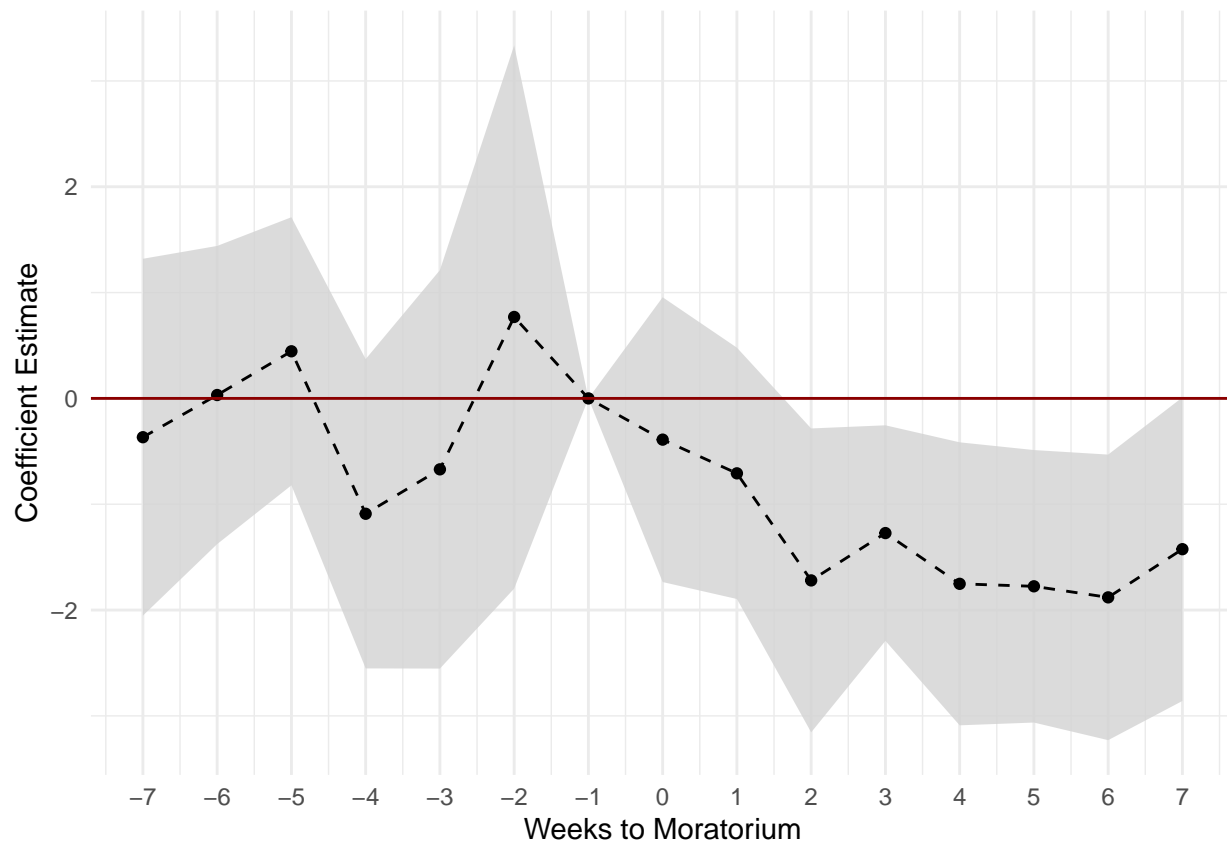


Figure 7: Event study for alcohol offenses. The x-axis represents weeks from moratorium date, with 0 being the week of a moratorium. The week before is removed from estimation as the reference period and the final lead and lag are binned, but not reported. The y-axis is the point estimate of the beta coefficient. Dark shadowed area represents 95 percent confidence interval.

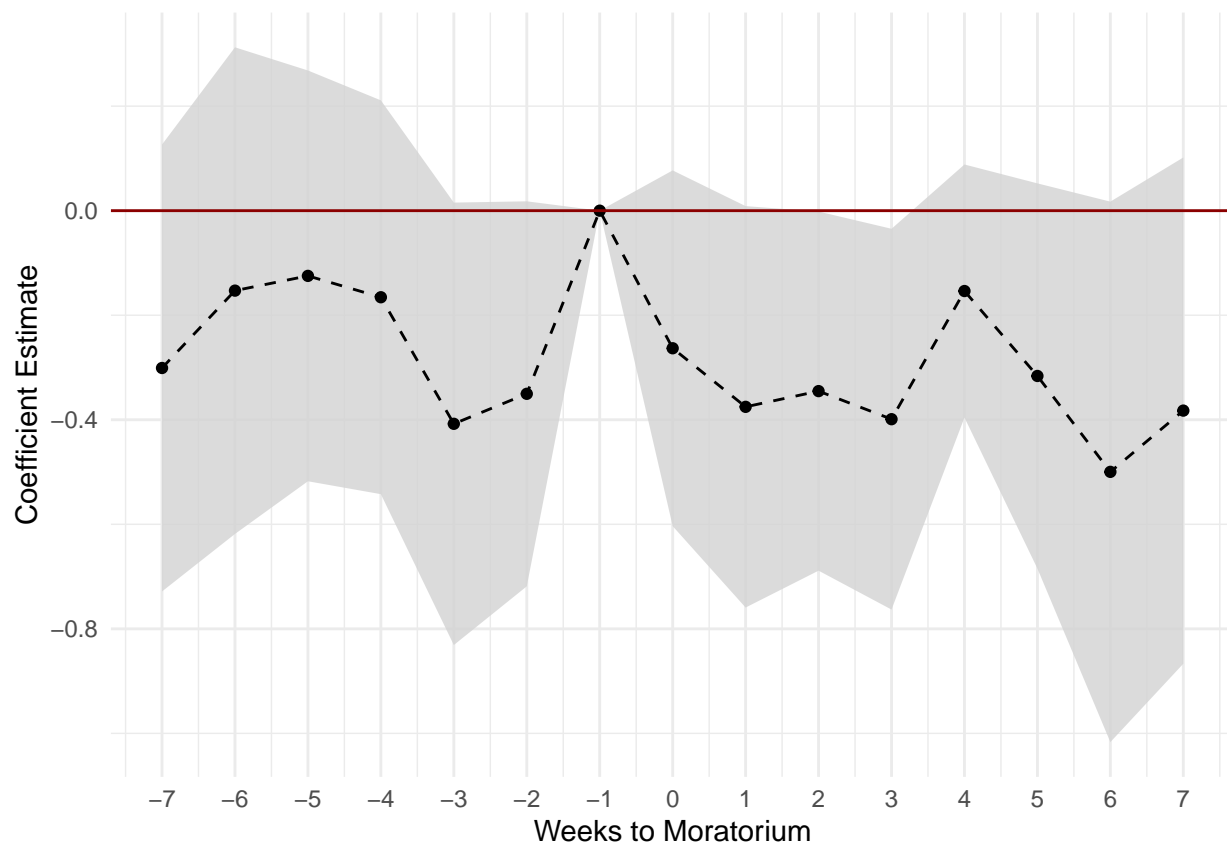


Figure 8: Event study for reports of sexual assault. The x-axis represents weeks from moratorium date, with 0 being the week of a moratorium. The week before is removed from estimation as the reference period and the final lead and lag are binned, but not reported. The y-axis is the point estimate of the beta coefficient. Dark shadowed area represents 95 percent confidence interval.

6 Tables

Table 1: Words/phrases used to pattern match on outcomes of interest.

Outcome	Words to Match
Sexual Assault	sex, rape, fondling, fondle, indecent exposure
Alcohol Violations	alcohol, dwi, intox, drink, dui, drunk, liquor, driving under the influence, dip, abcc, underage, beverage, dwi, underage, container, pula, owi, mip, under age, beer, wine, booze, minor in possession, ovi
Robbery/Burglary	robbery, burglary, unlawful entry, breaking and entering

Table 2: The top 30 most frequent reported incidents after pattern matching into each category. Numbers in parenthesis denote the frequency of offense in the data.

Sexual Assault	Alcohol Offense	Robbery/Burglary Offense
(394) rape	(2882) alcohol offense	(1639) burglary
(379) sexual assault	(2311) abcc violation	(1042) alarm burglary
(301) sex offense	(1272) intoxicated person	(832) auto burglary
(205) indecent exposure	(1216) dui	(657) 62a - burglary alarm
(184) sexual battery	(1010) intx-intoxicated person	(580) burglary/intrusion alarm
(144) csa report: rape	(785) buying, consume while underage	(366) burglary alarm
(114) criminal sexual conduct	(764) minor in possession	(315) larceny/theft-auto burglary -report
(88) campus security authority-sex offense	(740) possession/supply alcohol u/21	(200) robbery
(77) assist other agency-sex offense	(710) public intox	(183) burglary of vehicle
(69) sexual abuse 3rd degree	(702) liquor laws	(175) assist other agency-burglary
(62) sex offenses	(695) driving under the influence	(153) breaking and entering
(56) sex offense - anonymous	(625) driving under the influence not counted for ucr	(149) burg-burglary
(41) sxof-sex offense	(620) public intoxication	(120) burglary to auto, petit theft
(38) forcible fondling	(507) mip	(115) 62c - burglary of vehicle
(38) sex crime	(482) offenses involving underage persons	(110) commercial burglary
(36) sex offense (except forcible rape or prostitution)	(476) liquor law referral	(108) burglary-burglary -report
(36) sexual assault using physical force or coercion; victim does not sustain severe personal injury	(467) liquor law arrest	(94) theft by unlawful taking or disposition(movable) burglary by entering structure
(32) 3rd party report sexual abuse 3rd degree	(456) intoxication	(93) assist other agency-robbery
(32) forcible sex offense	(435) minors in possession of alcohol	(84) burglary by entering structure theft by unlawful taking or disposition(movable)
(32) sexual imposition	(386) liquor laws - illegal possession/consumption	(79) burglary 3rd degree
(31) sex offenses - forcible	(377) intoxicated subjects	(78) burglary offenses
(31) sex offenses sex offenses	(349) campus security authority-liquor law violation	(76) 62 - burglary
(30) sexual abuse	(318) all other offenses (except traffic) liquor laws	(60) burglary, grand theft
(28) anonymous sexual assault	(288) alcohol violation	(59) burglary - auto
(27) late reported sexual assault	(288) medical - medical aid - alcohol/drug	(58) burglary to auto, grand theft
(25) sex offense/forcible rape	(283) public drunkenness	(56) burglary, first degree, non-forcible entry
(23) rape rape	(251) driving while intoxicated	(55) burglary; dwelling to commit fel
(23) rape-rape -report	(251) intox person 2	(50) burglary forcible entry
(21) anonymous late reported sexual assault	(237) liquor laws illegal possession/consumption	(49) burglary - habitation
(21) criminal sexual contact	(213) mip-alcohol	(46) burglary; vehicle to commit felon

Table 3: All universities included in the sample and their respective moratorium dates.

University	Moratorium 1 Start	Moratorium 1 End	Moratorium 2 Start	Moratorium 2 End
Arkansas State University-Main Campus	2017-02-21	2017-04-01		
Ball State University	2017-10-24	2018-01-31		
California Polytechnic State University-San Luis Obispo	2015-01-13	2015-04-06	2018-04-17	2018-06-06
Clemson University	2014-09-23	2014-10-10	2018-01-27	2018-03-01
College of Charleston	2016-08-30	2016-12-01		
East Carolina University	2015-01-28	2015-02-11		
Emory University	2014-11-03	2014-12-02		
Florida Atlantic University	2017-11-28	2018-03-01		
Florida International University	2018-01-01	2018-02-05		
Florida State University	2017-11-06	2018-03-26		
Indiana University-Bloomington	2017-11-27	2018-02-28		
Louisiana State University and Agricultural & Mechanical College	2017-09-14	2017-10-12	2017-10-19	2018-03-01
Marshall University	2018-03-05	2018-03-26		
Monmouth University	2018-09-06	2019-01-16		
Murray State University	2018-05-09	2018-08-27		
North Carolina State University at Raleigh	2015-03-20	2015-05-09		
Ohio State University-Main Campus	2017-11-16	2018-02-07		
Ohio University-Main Campus	2019-10-03	2019-10-25		
Rollins College	2017-02-21	2017-04-14		
Rutgers University-New Brunswick	2015-04-06	2015-05-01		
San Diego State University	2018-03-09	2018-10-04	2019-11-09	2020-01-17
Syracuse University	2019-11-17	2019-12-09		
Texas State University	2017-11-14	2018-02-26		
Tufts University	2016-11-16	2017-01-19		
University at Buffalo	2019-04-12	2019-08-21		
University of California-Berkeley	2016-10-16	2016-10-26		
University of Central Florida	2018-01-08	2018-03-05		
University of Idaho	2017-12-12	2018-03-13		
University of Iowa	2017-05-01	2019-08-27		
University of Kansas	2018-03-12	2018-03-18		
University of Michigan-Ann Arbor	2017-11-09	2018-01-03		
University of Missouri-Columbia	2018-03-06	2018-03-13		
University of New Mexico-Main Campus	2017-12-08	2018-02-19		
University of Pittsburgh-Pittsburgh Campus	2018-01-19	2018-08-30		
University of Vermont	2019-02-05	2019-04-02		
University of Virginia-Main Campus	2014-11-22	2015-01-07		
Washington State University	2016-11-07	2017-01-09	2019-11-14	2020-01-27
West Virginia University	2014-11-13	2015-02-01	2018-02-14	2018-08-01

Table 4: Summary statistics for alcohol offenses, sexual assault, and robbery/burglary.

	Moratorium	Friday - Sunday				Monday - Thursday			
		Mean	SD	Min	Max	Mean	SD	Min	Max
Alcohol Offense	In Effect	0.85	1.45	0.00	16.22	0.27	0.79	0.00	12.64
	No Moratorium	0.89	1.84	0.00	33.06	0.20	0.76	0.00	40.84
Sexual Assault	In Effect	0.05	0.28	0.00	4.05	0.06	0.30	0.00	3.69
	No Moratorium	0.05	0.29	0.00	7.99	0.06	0.35	0.00	15.99
Robbery/Burglary	In Effect	0.12	0.57	0.00	13.06	0.14	0.51	0.00	7.63
	No Moratorium	0.12	0.49	0.00	24.69	0.14	0.51	0.00	15.43

Outcome variables are per 25,000 enrolled students.

Table 5: University summary statistics of the 53 universities

	Mean	SD	Median	Min	Max
Total Enrollment	28698.29	14462.29	28664.00	3127.00	69402.00
Total Undergrad Enrollment	22155.50	11864.60	21921.00	2571.00	59371.00
Fraction Asian	0.07	0.07	0.04	0.01	0.36
Fraction Black	0.07	0.04	0.06	0.01	0.20
Fraction Hispanic	0.13	0.14	0.07	0.02	0.68
Fraction White	0.62	0.18	0.67	0.08	0.83
Graduation Rate	70.48	13.63	71.00	39.00	95.00
SAT Math 75	656.02	68.25	650.00	480.00	790.00
SAT Reading 75	641.90	53.71	640.00	490.00	760.00
Fraction Admitted	0.60	0.21	0.62	0.14	0.94
Fraction Private	0.13	0.33	0.00	0.00	1.00

Table 6: Differences in reporting between moratorium and non-moratorium days.

	Proportion Reported with a Lag	
	Sexual Assault	Alcohol Offense
Moratorium	0.000 (0.004)	0.000 (0.002)
Num.Obs.	49425	49425
Mean of Dependent Variable	0.014	0.002
Std. Errors	Clustered (university)	Clustered (university)
FE: uni_semester	X	X
FE: weekday	X	X

+ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001

The dependent variable is the proportion of offenses that are reported with a lag.

A lag is defined as when date reported is more than 3 days later than the date occurred.

Observations are based off of a subset of the sample due to data constraints on the date reported.

Table 7: Effect of Moratoriums on Alcohol Offenses.

	(1)	(2)	(3)	(4)
Full Sample (Monday - Sunday)				
Moratorium	-0.141** (0.050)	-0.143** (0.049)	-0.141** (0.047)	-0.141** (0.047)
Num.Obs.	56614	56614	56614	56614
Mean of Dependent Variable	0.500	0.500	0.500	0.500
Weekends (Friday - Sunday)				
Moratorium	-0.320** (0.108)	-0.328** (0.107)	-0.277** (0.098)	-0.276** (0.099)
Num.Obs.	24287	24287	24287	24287
Mean of Dependent Variable	0.890	0.890	0.890	0.890
Weekdays (Monday - Thursday)				
Moratorium	-0.008 (0.024)	-0.003 (0.027)	-0.040 (0.034)	-0.040 (0.034)
Num.Obs.	32327	32327	32327	32327
Mean of Dependent Variable	0.207	0.207	0.207	0.207
Std. Errors	Clustered (university)	Clustered (university)	Clustered (university)	Clustered (university)
FE: day_of_week	X	X	X	X
FE: semester_number		X		
FE: university	X	X		
FE: university_by_semester_number			X	
FE: university_by_year_by_semester_number				X
FE: year	X	X	X	

+ $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

The sample includes 38 universities. Some universities go in and out of moratoriums multiple times.

Standard errors are clustered by university.

Outcome of interest is alcohol offenses per 25 thousand students.

Coefficient estimates shown are for Moratorium.

Full Sample includes only academic calendar days (plus 1 extra week on each end).

Table 8: Effect of Moratoriums on Reports of Sexual Assault

	(1)	(2)	(3)	(4)
Full Sample (Monday - Sunday)				
Moratorium	-0.011+	-0.009+	-0.005	-0.005
	(0.006)	(0.005)	(0.007)	(0.007)
Num.Obs.	56614	56614	56614	56614
Mean of Dependent Variable	0.500	0.500	0.500	0.500
Weekends (Friday - Sunday)				
Moratorium	-0.014*	-0.012+	-0.017+	-0.017+
	(0.006)	(0.006)	(0.009)	(0.009)
Num.Obs.	24287	24287	24287	24287
Mean of Dependent Variable	0.890	0.890	0.890	0.890
Weekdays (Monday - Thursday)				
Moratorium	-0.008	-0.007	0.004	0.004
	(0.008)	(0.007)	(0.009)	(0.009)
Num.Obs.	32327	32327	32327	32327
Mean of Dependent Variable	0.207	0.207	0.207	0.207
Std. Errors	Clustered (university)	Clustered (university)	Clustered (university)	Clustered (university)
FE: day_of_week	X	X	X	X
FE: semester_number		X		
FE: university	X	X		
FE: university_by_semester_number			X	
FE: university_by_year_by_semester_number				X
FE: year	X	X	X	

+ $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

The sample includes 38 universities. Some universities go in and out of moratoriums multiple times

Standard errors are clustered by university.

Outcome of interest is alcohol offenses per 25 thousand students.

Coefficient estimates shown are for Moratorium.

Full Sample includes only academic calendar days (plus 1 extra week on each end).

Table 9: Effect of Moratoriums on Alcohol Offenses and Sexual Assault (OLS).

	Alcohol Offense				Sexual Assault			
	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
Full Sample (Monday - Sunday)								
Moratorium	-0.141** (0.050)	-0.143** (0.049)	-0.141** (0.047)	-0.141** (0.047)	-0.011+ (0.006)	-0.009+ (0.005)	-0.005 (0.007)	-0.005 (0.007)
Num.Obs.	56614	56614	56614	56614	56614	56614	56614	56614
Mean of Dependent Variable	0.500	0.500	0.500	0.500	0.057	0.057	0.057	0.057
Weekends (Friday - Sunday)								
Moratorium	-0.320** (0.108)	-0.328** (0.107)	-0.277** (0.098)	-0.276** (0.099)	-0.014* (0.006)	-0.012+ (0.006)	-0.017+ (0.009)	-0.017+ (0.009)
Num.Obs.	24287	24287	24287	24287	24287	24287	24287	24287
Mean of Dependent Variable	0.890	0.890	0.890	0.890	0.052	0.052	0.052	0.052
Weekdays (Monday - Thursday)								
Moratorium	-0.008 (0.024)	-0.003 (0.027)	-0.040 (0.034)	-0.040 (0.034)	-0.008 (0.008)	-0.007 (0.007)	0.004 (0.009)	0.004 (0.009)
Num.Obs.	32327	32327	32327	32327	32327	32327	32327	32327
Mean of Dependent Variable	0.207	0.207	0.207	0.207	0.061	0.061	0.061	0.061
Std. Errors	Clustered (university)	Clustered (university)	Clustered (university)	Clustered (university)	Clustered (university)	Clustered (university)	Clustered (university)	Clustered (university)
FE: day_of_week	X	X	X	X	X	X	X	X
FE: semester_number		X				X		
FE: university	X	X			X	X		
FE: university_by_semester_number			X				X	
FE: university_by_year_by_semester_number				X				X
FE: year	X	X	X		X	X	X	

+ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001

The sample includes 38 universities. Some universities go in and out of moratoriums multiple times.

Standard errors are clustered by university.

Outcomes of interest are alcohol offenses and reports of sexual assaults per 25 thousand students.

Coefficient estimates shown are for Moratorium.

Table 10: Effect of Moratoriums on Alcohol Offenses and Sexual Assault (Poisson).

	Alcohol Offense				Sexual Assault			
	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
Full Sample (Monday - Sunday)								
Moratorium	-0.243*	-0.217*	-0.343***	-0.343***	-0.181+	-0.159+	-0.170	-0.170
	(0.102)	(0.094)	(0.100)	(0.100)	(0.100)	(0.094)	(0.120)	(0.120)
Num.Obs.	56614	56614	53920	53866	56614	56614	51656	51586
Mean of Dependent Variable	0.537	0.537	0.537	0.537	0.057	0.057	0.057	0.057
Weekends (Friday - Sunday)								
Moratorium	-0.320**	-0.296**	-0.413***	-0.412***	-0.221+	-0.211	-0.345+	-0.345+
	(0.106)	(0.097)	(0.106)	(0.106)	(0.127)	(0.135)	(0.193)	(0.193)
Num.Obs.	23625	23625	22568	22540	24287	24287	19759	19726
Mean of Dependent Variable	0.957	0.957	0.957	0.957	0.053	0.053	0.053	0.053
Weekdays (Monday - Thursday)								
Moratorium	-0.030	-0.000	-0.157	-0.157	-0.155	-0.126	-0.049	-0.049
	(0.111)	(0.117)	(0.162)	(0.162)	(0.123)	(0.115)	(0.145)	(0.145)
Num.Obs.	32327	32327	29362	29331	32327	32327	27527	27494
Mean of Dependent Variable	0.222	0.222	0.222	0.222	0.060	0.060	0.060	0.060
Std. Errors	Clustered (university)	Clustered (university)	Clustered (university)	Clustered (university)	Clustered (university)	Clustered (university)	Clustered (university)	Clustered (university)
FE: day_of_week	X	X	X	X	X	X	X	X
FE: semester_number		X				X		
FE: university	X	X			X	X		
FE: university_by_semester_number			X				X	
FE: university_by_year_by_semester_number				X				X
FE: year	X	X	X		X	X	X	

+ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001

The sample includes 38 universities. Some universities go in and out of moratoriums multiple times.

Standard errors are clustered by university.

Outcomes of interest are alcohol offenses and reports of sexual assault counts.

Coefficient estimates shown are for Moratorium.

Table 11: Effect of Fraternity Moratoriums on other outcomes

	Full Sample			Weekends (Fri-Sat)			Weekdays (Mon - Thurs)		
	Robbery/Burglary	Drug Offense	Theft	Robbery/Burglary	Drug Offense	Theft	Robbery/Burglary	Drug Offense	Theft
Moratorium	0.007 (0.014)	-0.049 (0.032)	-0.088* (0.042)	0.032 (0.019)	-0.069* (0.034)	-0.130** (0.042)	-0.013 (0.018)	-0.034 (0.042)	-0.055 (0.059)
Num.Obs.	56614	56614	56614	24287	24287	24287	32327	32327	32327
Mean of Outcome Variable	0.130	0.432	0.637	0.120	0.495	0.483	0.137	0.385	0.752
Std. Errors	Clustered (university)	Clustered (university)	Clustered (university)	Clustered (university)	Clustered (university)	Clustered (university)	Clustered (university)	Clustered (university)	Clustered (university)
FE: day_of_week	X	X	X	X	X	X	X	X	X
FE: university_by_semester_number	X	X	X	X	X	X	X	X	X

+ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001

The sample includes 38 universities. Some universities go in and out of moratoriums multiple times

Standard errors are clustered by university.

Outcome of interest is alcohol offenses per 25 thousand students.

Coefficient estimates shown are for Moratorium.

Full Sample includes only academic calendar days (plus 1 extra week on each end).

Table 12: Effect of Fraternity Moratoriums on Alcohol Offenses by Triggering Event.

	Triggering Event			
	(1)	(2)	(3)	(4)
	Sexual Assault	Death of Student	Behavior Violation	Unknown
Moratorium x Triggering Sexual Assault	-0.081 (0.138)			
Moratorium x Triggering Death of Student		-0.246** (0.074)		
Motatorium x Triggering Behavior Violation			-0.092 (0.057)	
Moratorium x Triggering Event Unknown				-0.137+ (0.079)
Num.Obs.	56614	56614	56614	56614
Mean of Alcohol	0.500	0.500	0.500	0.500
Std. Errors	Clustered (university)	Clustered (university)	Clustered (university)	Clustered (university)
FE: day_of_week	X	X	X	X
FE: university_by_semester_number	X	X	X	X

+ $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Alcohol offenses are per-25,000 students enrolled.

Sexual assault as a triggering event can either be allegations or confirmed.

Death of a student is the death of a student due to fraternity-related activity.

Behavior violation includes hazing, racist activity, and extreme alcohol offense.

Table 13: Effect of fraternity moratoriums on sexual assault by triggering event.

	Triggering Event			
	(1)	(2)	(3)	(4)
	Sexual Assault	Death of Student	Behavior Violation	Unknown
Moratorium x Triggering Sexual Assault	-0.045*** (0.011)			
Moratorium x Triggering Death of Student		0.007 (0.011)		
Moratorium x Triggering Behavior Violation			-0.009 (0.010)	
Moratorium x Triggering Event Unknown				0.018 (0.017)
Num.Obs.	56614	56614	56614	56614
Mean of Sexual Assault	0.057	0.057	0.057	0.057
Std. Errors	Clustered (university)	Clustered (university)	Clustered (university)	Clustered (university)
FE: day_of_week	X	X	X	X
FE: university_by_semester_number	X	X	X	X

+ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001

Sexual assaults are per-25,000 students enrolled.

Sexual assault as a triggering event can either be allegations or confirmed.

Death of a student is the death of a student due to fraternity-related activity.

Behavior violation includes hazing, racist activity, and extreme alcohol offense.

Table 14: Heterogeneous Effects for University-enacted Moratoriums and IFC-enacted Moratoriums.

	Alcohol Offenses			Sexual Assault		
	(1)	(2)	(3)	(4)	(5)	(6)
	Full Sample	Weekends	Weekdays	Full Sample	Weekends	Weekdays
Moratorium x University Enacted	-0.133* (0.053)	-0.249* (0.116)	-0.042 (0.046)	-0.002 (0.008)	-0.017 (0.011)	0.010 (0.011)
Moratorium x IFC Enacted	-0.160 (0.098)	-0.345+ (0.185)	-0.032 (0.043)	-0.013 (0.012)	-0.017 (0.012)	-0.011 (0.017)
Num.Obs.	56614	24287	32327	56614	24287	32327
Mean of Outcome	0.500	0.890	0.207	0.057	0.052	0.061
Std. Errors	Clustered (university)	Clustered (university)	Clustered (university)	Clustered (university)	Clustered (university)	Clustered (university)
FE: day_of_week	X	X	X	X	X	X
FE: university_by_semester_number	X	X	X	X	X	X

+ $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

IFC-enacted moratorium is a student-enforced moratorium.

University-enacted moratorium is a university-enforced moratorium.

Alcohol offenses are per-25,000 enrolled students

Sexual assaults are per-25,000 enrolled students

Full Sample includes every day of the week (Monday-Sunday).

Weekends include Friday, Saturday, and Sunday.

Weekdays include Monday, Tuesday, Wednesday, Thursday.

Table 15: Effect of Moratoriums on Alcohol Offenses and Sexual Assaults in Two Separate Data Sets.

	Campus Safety and Security						Daily Crime Logs	
	Alcohol Offenses			Sexual Assault			Alcohol Offenses	Sexual Assault
	Full Sample	Residence Hall	Noncampus	Full Sample	Residence Hall	Noncampus	Full Sample	Full Sample
Moatorium	150.911* (61.842)	137.765* (63.552)	3.275 (3.031)	-19.528 (15.644)	-13.325* (4.932)	7.696+ (4.293)	-52.436+ (29.892)	-4.892 (4.090)
Num.Obs.	228	228	228	228	228	228	226	226
Mean of Dependent Variable	380.435	357.498	2.510	29.463	14.923	3.611	142.533	16.567
Std. Errors	Clustered (university)	Clustered (university)	Clustered (university)	Clustered (university)	Clustered (university)	Clustered (university)	Clustered (university)	Clustered (university)
FE: university	X	X	X	X	X	X	X	X
FE: year	X	X	X	X	X	X	X	X

+ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001

Clery Act Data represents Campus Safety Report Official Statistics.

Daily Crime Logs represent the novel data I constructed.

Standard errors clustered by university.

All data is aggregated at the calendar-year level.

Daily Crime Log data represents full calendar year- not only academic calendar days.

Table 16: Effect of Moratoriums on College-Aged Sexual Assault for Universities Reporting to NIBRS

	NIBRS Data (University Police Only)							
	Total Sample				Weekends Only			
	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
Moratorium	0.005 (0.014)	0.008 (0.013)	-0.008 (0.009)	-0.008 (0.009)	0.003 (0.024)	0.004 (0.021)	-0.043 (0.037)	-0.043 (0.037)
Num.Obs.	20984	20984	20984	20984	8999	8999	8999	8999
Mean of Dependent Variable	0.082	0.082	0.082	0.082	0.110	0.110	0.110	0.110
Std. Errors	Clustered (university)	Clustered (university)	Clustered (university)	Clustered (university)	Clustered (university)	Clustered (university)	Clustered (university)	Clustered (university)
FE: day_of_week	X	X	X	X	X	X	X	X
FE: semester_number		X				X		
FE: university	X	X			X	X		
FE: university_by_semester_number			X				X	
FE: university_by_year_by_semester_number				X				X
FE: year	X	X	X		X	X	X	

+ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001

Dependent variable is college-aged sexual assaults which is combination of fondling, rape, and sexual assault object.

Standard errors clustered by university.

Only 14 of 38 universities included in sample due to reporting issues.

College aged includes ages 17 to 22.

Table 17: Effect of Moratoriums on College-Aged Sexual Assault Victims includes surrounding police agencies.

	NIBRS Data University Police and Surrounding Area							
	Total Sample				Weekends Only			
	(1)	(2)	(3)	(4)	(1)	(2)	(3)	(4)
Moratorium	0.005 (0.014)	0.008 (0.013)	-0.008 (0.009)	-0.008 (0.009)	0.003 (0.024)	0.004 (0.021)	-0.043 (0.037)	-0.043 (0.037)
Num.Obs.	20984	20984	20984	20984	8999	8999	8999	8999
Mean of Dependent Variable	0.082	0.082	0.082	0.082	0.110	0.110	0.110	0.110
Std. Errors	Clustered (university)	Clustered (university)	Clustered (university)	Clustered (university)	Clustered (university)	Clustered (university)	Clustered (university)	Clustered (university)
FE: day_of_week	X	X	X	X	X	X	X	X
FE: semester_number		X				X		
FE: university	X	X			X	X		
FE: university_by_semester_number			X				X	
FE: university_by_year_by_semester_number				X				X
FE: year	X	X	X		X	X	X	

+ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001

Dependent variable is college-aged sexual assaults which is combination of fondling, rape, and sexual assault w object.

Standard errors clustered by university.

Only 14 of 38 universities included in sample due to reporting issues.

College aged includes ages 17 to 22.

Table 18: Effect of Moratoriums on Alcohol Offenses for Universities with Fraternity Deaths Only.

	(1)	(2)	(3)	(4)
Full Sample (Monday - Sunday)				
Moratorium	-0.163 (0.115)	-0.163 (0.115)	-0.210+ (0.100)	-0.210+ (0.105)
Num.Obs.	15044	15044	15044	15044
Mean of Dependent Variable	0.674	0.674	0.674	0.674
Weekends (Friday - Sunday)				
Moratorium	-0.389 (0.227)	-0.404 (0.222)	-0.405+ (0.219)	-0.405+ (0.219)
Num.Obs.	6453	6453	6453	6453
Mean of Dependent Variable	1.198	1.198	1.198	1.198
Weekdays (Monday - Thursday)				
Moratorium	0.015 (0.048)	0.021 (0.060)	-0.055 (0.057)	-0.055 (0.057)
Num.Obs.	8591	8591	8591	8591
Mean of Dependent Variable	0.279	0.279	0.279	0.279
Std. Errors	Clustered (university)	Clustered (university)	Clustered (university)	Clustered (day_of_week)
FE: day_of_week	X	X	X	X
FE: university	X	X		
FE: university_by_semester_number			X	
FE: university_by_year_by_semester_number				X
FE: year	X	X	X	

+ $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

The sample includes 25 universities. 10 universities undergo moratoriums, while 15 do not.

The 15 untreated universities experienced a fraternity-related death but no moratorium.

Standard errors are clustered by university.

Outcome of interest is alcohol offenses per 25 thousand students.

Coefficient estimates shown are for Moratorium.

Full Sample includes only academic calendar days (plus 1 extra week on each end).

Lindo, Jason M., Peter Siminski, and Isaac D. Swensen. 2018. “College Party Culture and Sexual Assault.” *American Economic Journal: Applied Economics* 10 (1): 236–65. <https://doi.org/10.1257/app.20160031>.