

Cage the Alpha-Male? How Fraternity Moratoriums Affect Alcohol Offenses and Sexual Assault

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Abstract

Fraternalities 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 plausibly exogenous variation from temporary university-wide halts on all fraternity activity with alcohol (moratoriums) across 38 universities. I construct a novel data set using web-scraping, 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 Introduction

Fraternities are a polarizing college tradition, and it is unclear whether they should remain at universities. While past literature has revealed strong correlations between fraternity membership and better labor market outcomes and GPA, others have found evidence of higher alcohol use and sexual assault ([Foubert, Newberry, and Tatum 2008](#)). Moreover, according to data compiled by Hank Nuwer, a journalism professor at Franklin College, more than 200 students have died in hazing-related incidents since 1838—with more than 40 in the last decade. Universities have responded with attempts to reform their fraternity and sorority life such as offering educational classes to assist with binge drinking and sexual assault risk. Despite these progressions, recent movements such as “Abolish Greek Life,” a student-led initiative to remove fraternities from universities have gained national attention. But *should* fraternities be prohibited? Universities often rely on fraternities as quasi-official dorms and would otherwise need to create an expensive alternative ([Hechinger 2017](#)). Moreover, prohibiting fraternities could result in unregulated alternatives, thus raising the possibility of moving these behaviors to an even riskier setting.

In this paper, I provide the first causal evidence of how temporarily removing alcohol from fraternity social events and decreasing fraternity activity can reduce alcohol offenses *campus-wide*. In particular, I exploit the plausibly random events in the timing of university-wide fraternity moratoriums—temporary periods where fraternity social events with alcohol are prohibited. These events are unpredictable through standard regression techniques and are often the result of fraternity-related deaths, sexual assault allegations, or behavior violations. Consequently, I find large, robust, and statistically significant evidence that fraternity moratoriums cause a 25% reduction in alcohol offenses. Intuitively, I compare days from universities that, over a six-year period (2014-2019), have had, will have, or never had (but experienced similar fraternity activity) a fraternity moratorium to universities that are experiencing a moratorium while controlling for characteristics that are unique to universities across semesters and across different days of the week. Hence, these large decreases can

be interpreted as the additional decrease in alcohol offenses from what we would expect at a given university day in a particular semester. These effects are driven by decreases on weekends (when alcohol drinking and fraternity partying is more frequent) and persist across different estimation methods. Moreover, these decreases are especially potent when a moratorium is triggered by a fraternity-related death. I find no evidence that these results are due to changes in reporting during moratorium days, nor an already-trending decline in alcohol offenses. Furthermore, I find weak evidence that fraternity moratoriums cause decreases in sexual assaults-particularly when a moratorium is triggered by sexual assault allegations.

I construct a novel data set, combining fraternity moratorium dates uncovered through school newspapers, Lexis Nexus searches, Freedom of Information Act (FOIA) requests, and conversations with Fraternity and Sorority Life advisers with university-specific Daily Crime Logs- a federally mandated data source that all universities which receive federal funding must maintain. The Daily Crime Logs contain the universe of all crimes reported to the campus police over the most recent seven-year period. The crime logs were obtained through webscraping, PDF extracting, and Jeanne Clery Act requests. While the crime logs are not harmonized across universities, I pattern-match crime descriptions using regular expressions to find daily counts of alcohol offenses, sexual assaults, and robberies—offenses that are contained in the Campus Safety and Security Data but aggregated to the yearly level. Importantly, this is the first data set to my knowledge to contain harmonized daily counts of alcohol offenses¹ across a wide range of universities.

Previous causal studies on fraternities, while few, have shown that fraternity membership lowers GPA, causes higher alcohol consumption, and increases the likelihood of graduation. Specifically, [Mara, Davis, and Schmidt \(2018\)](#) exploit variation in one university’s residential environment and finds a small .25-point GPA decrease and a large, 36% increase in income attributed to fraternity membership. On the other hand, [Even and Smith \(2020\)](#)

¹The National Incident-Based Reporting System by the FBI contains alcohol offenses by-day, but only for alcohol offenses that end in arrests.

use regression discontinuity methods to show that membership significantly decreases GPA by 0.1-0.3 standard deviations, with effects being most prominent in a fraternity member's first semester. Furthermore, [Routon and Walker \(2014\)](#) use propensity score matching to find that fraternity membership increases frequent beer drinking by 14% and graduation rates by approximately 5% and [Glindemann et al. \(2007\)](#), using a field experiment, found that monetary incentives were successful in reducing blood alcohol content by 20% at fraternity parties, although the sample of participants were not randomly selected. This study contributes to this literature by providing a nation-wide sample of universities and utilizing objective outcomes collected through official university police Daily Crime Logs rather than survey data which is subject to strong measurement error ([Bertrand and Mullainathan 2001](#)).

Finally, this paper is the first to causally link fraternity activity to sexual assault. Past research has provided evidence of the relationship between fraternity members' likelihood to commit a sexual assault ([Foubert, Newberry, and Tatum 2008](#)), and sorority members increased likelihood of reporting being sexually assaulted ([Minow and Einolf 2009](#)). However, each of these studies examines only one university and the main analysis is built upon survey data. Although unrelated to fraternity activity, [Lindo, Siminski, and Swensen \(2018\)](#) most closely resembles this study in empirical strategy and finds causal evidence that college partying increases reports of rapes using football game variation. This study, on the other hand, isolates a decrease in risky fraternity activity.

2 Background on Fraternities

A fraternity, in the context of universities, is defined as a men's student organization formed chiefly for social purposes having secret rites and a name consisting of Greek letters. Fraternities are a ubiquitous, and longstanding tradition in the United States. They maintain a presence at 800 universities across the US ([Hechinger 2017](#)) with the oldest fraternities

forming in the mid 1800s.²

Fraternities consist of students from families of higher-than-average educational attainment and income; they are predominantly white, and prior research has linked fraternity membership to increases in graduation rates (Routon and Walker 2014), income (Mara, Davis, and Schmidt 2018), and GPA (DeBard and Sacks 2011). However, members spend approximately 2 more hours partying than nonmembers (Routon and Walker 2014), and sorority³ members, who socialize frequently with fraternity 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 (Lasky et al. 2017; Franklin 2016).

This paper focuses primarily on a group of fraternities known as the Interfraternity Council (IFC), a group of fraternities that consist of over 4 million alumni and more than 380 thousand undergraduate members across the US which, according to their creed, “exist to promote the shared interests and values of our member fraternities: leadership, service, brotherhood and scholarship” (Hechinger 2017). IFC fraternities differ from professional development fraternities in that they exist mainly for social purposes and are typically the largest fraternity presence at a university. More importantly, IFC fraternities are the fraternities subject to moratoriums in the sample.

To become a member of an IFC fraternity, prospective members must apply during recruitment events that take place in the fall or spring semester.⁴ Once a chapter and prospective member jointly accept membership, the new member (the “pledge”) 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 and largest fraternity chapters across the US that has initiated over 336 thousand members (Hechinger 2017). Each member must maintain a GPA over a certain threshold, pay an initiation and semester fee, attend chapter ritual events and meetings, be involved in one additional campus or community organization, and com-

²This is found on the North American Interfraternity Council website.

³A sorority is the female counterpart of a fraternity.

⁴Some universities have recruitment in both the fall and spring semester.

plete service hours. Upon membership, pledges may be invited to live within the fraternity house,⁵ which can reside either on or off campus. However, chapter houses are not managed by university-housing, and hence, fraternities have been found to be the most reliable source of alcohol for first-year undergraduates (Mara, Davis, and Schmidt 2018).

3 Data

The main analysis utilizes Daily Crime Logs from 53 university-specific police departments over a six-year period (2014-2019). I omit the year 2020 due to the COVID-19 pandemic in which university activity varied substantially from the previous years. The data was obtained under the Jeanne Clery Act, which states that universities that receive federal funding are mandated to keep Daily Crime Logs which specify the universe of crimes that university police officers report or are reported to the university police department over the last seven years. Daily Crime Logs are unique in that the data is unaggregated; each Daily Crime Log contains the date reported at the hourly level, in addition to a short description of the crime. Moreover, the Daily Crime Logs contain all incidents reported by or to the university police. Therefore, the data includes offenses such as alcohol offenses which are missing from national databases such as the Uniform Crime Reporting System (UCR) and the National Incidence-Based Reporting System (NIBRS).⁶ Additionally, the by-day-by-hour reporting makes the Daily Crime Logs preferable to other university crime databases such as Campus Safety and Security Data provided by the US Department of Education which features only yearly-level data on offenses.

⁵Not all universities have fraternity houses on their campus property, and not all fraternity chapters have houses at every university they are affiliated with.

⁶NIBRS, as noted earlier, only has alcohol offenses for crimes that end in arrest.

3.1 Data Collection

Under the Jeanne Clery Act, university police must allow their Daily Crime Logs to be ready for inspection within two business days of an inquiry. The universities must either send their Daily Crime Logs (usually in PDF format) electronically, direct you to a website that holds their records, or arrange a time to inspect records in-person.⁷ Each of these records were parsed using PDF extracting and webscraping techniques. Figure 2 shows a sample of a Daily Crime Log.⁸ I use the date reported as the date of the crime rather than the date occurred, as the date reported is featured across every university Daily Crime Log and the date occurred is often missing. However, the differences between these two dates are negligible as the mean and median difference is 0 days between the date reported and date occurred.

3.2 Data Harmonization

Each university’s Daily Crime Log varies in the description of the crimes reported. For instance, the report of “driving while intoxicated” may be represented in several ways across university police departments such as “dwi,” “operating while intoxicated,” or “owi.” To achieve harmonization across university police departments, I pattern-matched key words using regular expressions relating to specific categories of crimes that are reported in the US Department of Education Campus Safety and Security Data: sexual assault, alcohol offenses, and robbery. I focus primarily on sexual assault and alcohol offenses since these crimes have been previously linked to college partying (Lindo, Siminski, and Swensen 2018) and fraternities (Foubert, Newberry, and Tatum 2008) respectively. A combination of robberies and burglaries acts a placebo check; there is no literature pointing to robberies or burglaries being correlated with fraternity or college partying behavior, so there is no reason

⁷Universities do not have to allocate copies of the crime logs, they only have to make them available for inspection. Hence, there are two universities that had fraternity moratoriums, but were not able to be included in the sample due to this issue. Additionally, five universities provided Daily Crime Logs that were in formats that were completely unreadable by any software (e.g. scanned documents).

⁸Nearly every Daily Crime Log varied by university.

to believe moratoriums would cause increases or decreases. Table 1 shows the keywords used to pattern match to each offense type. These keywords were derived from surveying the most frequent descriptions of crimes within each university police department. For instance, if the phrase “liquor law violation” was a common description in a university’s crime logs, then the keyword “liquor” was used to match to an alcohol violation. This method is imperfect as it may underestimate the true reported offenses if particular keywords were not matched, or it may overestimate the true reported offenses if particular keywords systematically match to incorrect crimes. However, Table 2 shows the 30 most frequently reported offenses after the pattern matching process. In each of the columns, there is no apparent mismatching.

Figure 3 shows the distribution of means across alcohol offenses, reports of sexual assaults, and robbery/burglary by each day of the week. As expected, alcohol offenses are more frequent on Friday, Saturday, and Sunday, while sexual assaults and robberies/burglaries are relatively more consistent in reporting across the week. Notably, alcohol offenses show a large decrease in average counts on Saturdays when moratoriums are present. Table ?? shows summary statistics of alcohol offenses, reports of sexual assaults, and robbery/burglary, split by weekends and moratorium days. Moratoriums appear to have lower means across each of the crimes and tighter standard deviations on Friday-Sunday. Weekdays, on the other hand, show no systematic declines in means across any of the outcomes.

4 Fraternity Moratoriums

4.1 Collection of Dates and University Characteristics

University-wide fraternity moratoriums are defined as a temporary prohibition of fraternity-related social gatherings with alcohol. While there is variation in each university’s guidelines (e.g. some universities may restrict third-party vendors for fraternity events during a moratorium, others may not), each of the universities in the sample restrict

registered social events with alcohol.⁹ The existence of a moratorium was found searching school newspaper articles, Lexis Nexis, and a private repository of news articles relating to fraternities. Table 3 shows each of the university’s moratorium start and end dates. Each date in Table 3 was verified using either newspaper articles, conversations with Fraternity and Sorority Life employees, or Freedom of Information Act requests. However, Table 3 is not an exhaustive list of all moratoriums. Four universities were omitted from the sample¹⁰ because either verification of exact start and end dates could not be achieved, their moratorium did not include prohibiting alcohol, or the university’s police department did not provide Daily Crime Logs in a format readable by any software.¹¹ Hence, the 53 universities experiencing moratoriums in the sample are a subset of all university-wide fraternity moratoriums that occurred between 2014 and 2019. Additionally, 15 universities that *did not* experience a fraternity moratorium, but experienced a fraternity-activity-related death are included as a ‘never treated’ control group.¹² These universities were found using the journalist/professor Hank Nuwer’s online repository of hazing deaths from 2000-2021.¹³ This amounts to 53 universities that are widely dispersed among the US as shown in Figure 4. Table 5 shows summary statistics of university characteristics using data from the Integrated Postsecondary Education Data System (IPEDS). On average, the universities are large (~28k enrollment), predominantly white (~59% of undergraduates), mostly public (84%) and have a wide variation in terms of selectivity and graduation rate.

⁹Fraternity social events typically need to be registered through their respective university. An example of the guidelines for UC Berkeley university can be found at <https://lead.berkeley.edu/wp-content/uploads/2015/01/all-greek-social-code.pdf>.

¹⁰These universities include Cal State Northridge, Miami University , Pennsylvania State University, and University of Texas at Arlington.

¹¹One particularly notable omission from the sample is Pennsylvania State University which registered a fraternity moratorium on 2/7/17 due to the death of Timothy Piazza. The university police department did not allow copies of their Daily Crime Logs to be distributed- only inspected in person.

¹²While there are 19 of these universities, I could only complete the data for 15 of them. Texas Tech, Delaware State, Cal State Fullerton, and Bloomburg University of Pennsylvania all had either unreadable Daily Crime Logs, or did not provide them to me.

¹³Hank Nuwer’s website can be found at: <https://www.hanknuwer.com/hazing-destroying-young-lives>

4.2 Who oversees fraternity moratoriums and why do they occur?

Fraternities have three sources of oversight: the university's IFC council,¹⁴ the unique fraternity chapter's national headquarters, and the university itself. Of these three sources of oversight, only the IFC and university have the jurisdiction to impose a university-wide fraternity moratorium. IFC council-imposed moratoriums account for 36% of the moratorium in the sample, while universities account for the remaining 64%. IFC moratoriums are student-enforced; they are implemented by the university IFC which is a small council of undergraduate fraternity members representing each chapter. While these may be supported by the university, the only overseer of the guidelines are the fraternities themselves. In contrast, university-enacted moratoriums are the result of university officials imposing restrictions across all IFC fraternity chapters. They are regulated by the university itself and frequently require new guidelines and criteria to be met before lifting the moratorium (e.g. sexual assault training or a task-force investigation).

Moratoriums are the result of a plausibly exogenous shock to a university such as fraternity-related deaths, sexual assaults, hazing violations, or racist activity gone viral. Figure 5 shows the 45 moratoriums in the sample by the event that triggered the moratorium. The most frequent (42%) are behavior violations which include alcohol violations, racist activity gone viral, and hazing allegations, while second are fraternity related deaths (22%), and third are sexual assault allegations (20%). Of these triggering events, death results in the longest average moratorium at approximately 103 university-calendar days, while behavior and sexual assault allegations result in approximately 58 and 31 average university-calendar days respectively. Seven (16%) of these moratoriums had no clarifying explanation for the resulting moratorium.

To test the plausible exogeneity of these triggering events, I estimate both a linear proba-

¹⁴There is an important distinction between an IFC fraternity and the university's IFC council. While an IFC fraternity belongs to the North American Interfraternity Conference, a trade group representing fraternities, the IFC council is a collection of undergraduates from various fraternity chapters that oversee fraternity-related activity on a particular campus.

bility and logit model on pre-treatment characteristics from each university in attempt to predict a fraternity moratorium. If there are observable characteristics of universities that correlate with the decision to impose a moratorium at strong statistically significance levels, then the moratoriums may not be exogenous. On the other hand, if there are none (or very few), the plausible exogeneity would still hold. I estimate Equation 1 where *EverMoratorium_u* represents whether university *u* ever experiences a fraternity moratorium, \mathbb{X}_u is a vector of observable characteristics including enrollment, demographics, pricing, and source of income for each university averaged over all years prior to the first moratorium, and ϵ_i is the error term. Standard errors are clustered by university, and an indicator for missing data is added to the model as revenues and SAT data is missing among a large portion of the sample.

$$EverMoratorium_u = \gamma \mathbb{X}_u + \epsilon_u \quad (1)$$

Figure 6 shows the results of this prediction exercise, plotting each coefficient estimate. Overall, there is little evidence that university characteristics can predict if a moratorium is implemented as the confidence intervals contain the standardized mean. While there appears to be slight evidence that selectivity (e.g. fraction admitted) and total cost are predictors of moratoriums, these are weakly significant, not robust across both estimation methods, and likely represent ‘by-chance’ significance due to the large number of hypothesis tests. A Bonferroni p-value correction (e.g. multiplying the p-value by the number of hypothesis tests) yields no statistical significance across any of the observable covariates, thus providing further evidence of the plausible exogeneity of moratoriums.

5 Empirical Strategy

5.1 Primary Model

I estimate the effect of fraternity moratoriums on reports of sexual assault and alcohol offenses by exploiting across-time and within-university variation induced by the plausibly exogenous timing of the moratoriums. The model’s identifying assumption is that universities that have experienced, will experience, or have never experienced a campus-wide fraternity moratorium are a good counterfactual for a university experiencing a campus-wide fraternity moratorium. In particular, the baseline approach to this model is estimated using Equation 2, where $Y_{u,t}$ represents the outcome of either sexual assault or alcohol offenses at university u in time t , $\gamma_{u,semester}$ is a university-by-semester fixed effect, $\alpha_{weekday}$ is a weekday fixed effect, and $\epsilon_{u,t}$ is the error term. I forgo including a vector of covariates given the prediction exercise (see Section 4.2), and the satisfaction of common trends (see Section 5.2).

$$Y_{u,t} = \beta Moratorium_{u,t} + \gamma_{u,semester} + \alpha_{weekday} + \epsilon_{u,t} \quad (2)$$

University-by-semester fixed effects are included to remove any time-invariant differences between university-semester. For instance, fraternity recruitment events vary across university-semester (e.g. some universities may only allow spring recruitment, while others may allow fall and spring recruitment) which may enhance fraternity-related activities within a semester (De Donato and Thomas 2017). The inclusion of these fixed effects ensures that the estimated effects are driven by moratoriums instead of a cyclical increase in fraternity activities.

I include day-of-week fixed effects to address the fact that most fraternity-related activities occur on Fridays/Saturdays. Hence, the estimates should be interpreted as the additional effect of the crimes that are typically reported on a given weekday.

To increase precision of the estimates, I use only academic calendar days for each specific

university.¹⁵ In particular, I use the “first-day of classes” as the start-date of the fall semester, the “finalized grade date” for the end of the semester, and add a seven-day period to each beginning and end of a semester to account for minor variations across years.¹⁶ To harmonize the 4% of the universities in the sample that use the quarter system, the fall quarter is defined as the fall semester, and the winter/spring quarters are defined as the spring semester. While slightly imprecise, this is done for the computational purposes and only affects 4% of the sample.¹⁷

5.2 Threats to Identification

Based on this empirical strategy, the main challenges with interpreting the parameter β as the causal effect of fraternity moratoriums come from two separate channels: changes in reporting and ex-ante trends. First, it is important that the propensity to report a crime does not change between moratorium days and non-moratorium days. For instance, β would be overestimating the effect of fraternity moratoriums if victims of sexual assault were more inclined to report (e.g. increased pressure on fraternities) or if there was more surveillance (e.g. more police officers on-duty to prevent bad behavior) on moratorium days which could result in higher reports of sexual assault and more discoveries of alcohol offenses respectively. On the other hand, β may be underestimating the effect of fraternity moratoriums if sexual assault victims are less inclined to report an offense (e.g. fear of retaliation) or if police surveillance decreased (e.g. less need for police officers when little fraternity activity) during moratoriums. To indirectly test the possibility of reporting differences, I test whether there is a significant change in the proportion of offenses that are reported with a lag on moratorium

¹⁵Academic calendars are based on the most recent calendar that was relevant to my sample period. Most academic calendars are based on academic years 2019-2020.

¹⁶However, I do not add a seven-day period to the end of the fall semester as this would bleed into Christmas vacation for many of the schools. Considering I use an extremely conservative end date (e.g. the finalized grade date), there is little possibility that I will be excluding a significant amount of meaningful university-student-life activity. Additionally, if a start date was January 7th or earlier, I do not add a seven-day buffer. Exact academic calendars were not used because a significant portion of schools do not retain their old academic calendars.

¹⁷Moreover, given that spring break occurs in a spring semester and the winter and spring quarters are separated by spring break, there is little need to distinguish these.

days. I follow [Sahay \(2021\)](#) and define a crime reported with a lag as any crime that has a date reported that is more than three days¹⁸ further from the date occurred. While only 46 universities feature the date occurred in their Daily Crime Logs made available, this still amounts to 87% of the universities used for the main analysis. I estimate Equation 2, where $Y_{u,t}$ is the proportion of either sexual assaults or alcohol offenses reported with a lag at university u in time t . Estimates of this specification are shown in Table ?? Neither sexual assault nor alcohol offenses are reported differently during moratorium days, with both point estimates being precisely estimated around 0. In effect, there is no evidence that there is a systematic change in the reporting of crimes during moratoriums.

Moreover, β would not represent the causal effect of fraternity moratoriums if university police reports of crimes were already trending downward prior to the moratorium and would have continued downward absent the moratorium (e.g. Ashenfelter’s Dip). Hence, I estimate an event study, aggregating the data to the weekly level,¹⁹ following Equation 3.

$$Y_{u,t} = \sum_j^{J_u} \sum_{d=-8, d \neq -1}^8 1(t - e_j^u = d) \beta_d + \gamma_{u, \text{semester}} + \epsilon_{u,t} \quad (3)$$

Note that universities can experience multiple moratoriums in the sample time frame, and hence, J_u denotes the number of events ever occurring for university u , e_j^u denotes the time when university u experiences their j th event, $1(t - e_j^u = d)$ is an indicator function, and the remaining parameters are defined similarly as in Equation 2. The treatment effects are normalized by setting $\beta_{-1} = 0$ (e.g. the reference period), and the earliest lead (β_{-8}) and latest lag (β_8) are binned to allow for identification with the presence of never-treated units ([Schmidheiny and Siegloch 2020](#)).²⁰ Figure 7 and 8 show the estimated coefficients and

¹⁸In Appendix Table BLANK, I change the definition of reporting with a lag to encapsulate a large variety of intervals. This is not yet completed.

¹⁹I define the start of a week as Monday since most fraternity activity and college partying activity occurs Friday-Sunday. Additionally, moratorium dates are ‘floored’ to the nearest week. As an example, if a moratorium occurs on a Wednesday, the full week beginning on Monday is considered the start of the moratorium week.

²⁰Moreover, the binned endpoints are the sum of all the events that have occurred. For instance, if university u experienced two moratoriums, their final lag would consist of 0s, 1s, and 2s.

confidence intervals for alcohol offenses and reports of sexual assault respectively. Figure 7 displays no signs of ex-ante trends for alcohol offenses- the estimated coefficients are all statistically insignificant and are centered around 0 prior to a moratorium. While Figure 8 features less conventional satisfaction of ex-ante trends (e.g. all estimated coefficients are negative), the confidence intervals still encapsulate 0 pre-moratorium, signifying no statistically significant changes in reporting sexual assaults before the moratoriums.

6 Results

6.1 Main Results and Robustness

In Table 7, I estimate Equation 2 with OLS using both reports of sexual assault and alcohol offenses per twenty-five-thousand enrolled students as the dependent variables. Standard errors are clustered at the university level, and university-by-semester and weekday fixed effects are included in all specifications. Columns (1)-(3) represent the effect of fraternity moratoriums on alcohol offenses. Column (1) shows a large and statistically significant decrease in alcohol offenses when there are no restrictions on days of the week (e.g. including Monday-Sunday), representing a 25% reduction from the mean. These effects are driven by weekend days (Friday/Saturday/Sunday), as shown in column (2), while there is no evidence of significant decreases in alcohol offenses during weekdays in column (3). This is consistent with evidence that drinking behavior is less common on weekdays, and alcohol related offenses tend to occur most frequently on the weekends. On the other hand, column (4) shows that reports of sexual assault decrease by a small and statistically insignificant magnitude during moratorium days within the whole sample (Monday-Sunday). While this effect remains small on weekdays (column (6)), there appears to be evidence of large 31% reduction from the mean on weekends.

In Table 8, I replicate the results shown in Table 7 using poisson estimation given the discrete, non-negative count nature of the offenses. Hence, β can be interpreted as the percent

change in the outcome of interest due to moratoriums after a slight transformation.²¹ The estimation exhibits similar results: alcohol offenses decline substantially during moratoriums while sexual assaults remain unchanged at conventional levels of significance. The coefficients show a 28% decrease in alcohol offenses (column (1)), with this effect being attributed to large decreases on the weekends (column (2)). Similarly to OLS, there is little evidence of reductions in reports of sexual assault when considering all weekdays (column (4)), but weakly significant of reductions (32%) on the weekends (column (5)).²²

While the effects are robust across different estimators, I empirically test that the results are not being driven by one specific university. For instance, it is conceivable that the large decreases observed in alcohol offenses are the consequence of one university that had particularly large effects or experienced an unusually long moratorium period. To mitigate this plausible issue, I estimate Equation 2 using a leave-one-out regression framework. More specifically, I estimate 53 separate regressions, with each estimation omitting one university and plot the distribution of estimated β coefficients and standard errors in Figure 9. In each iteration, the results remain similar across both alcohol offenses and sexual assault. There appears to be no deviation in statistical significance and little deviation in the magnitude of the effects when omitting a single university.

Furthermore, as a placebo test, I test whether robberies and burglaries, two outcomes that have not been documented to be associated with fraternity behavior, are affected by fraternity moratoriums. I combine robberies and burglaries into a single explanatory variable, and estimate Equation 2 in Table 9. As expected, there are no effects across robberies.

²¹For a ‘percentage change’ interpretation, I use the $e^\beta - 1$ transformation.

²²Despite slightly larger magnitudes, I prefer OLS estimation since it (1) provides more conservative estimates and (2) poisson regression with fixed effects may drop observations when no variation is observed.

6.2 Heterogeneity

6.2.1 Which triggering events have the biggest effects?

Not all moratoriums are equivalent. As shown in Figure 5, a moratorium can stem from a variety of events such as sexual assault allegations, a notable behavior violation, or a fraternity-related death. There are large differences in the salience of these events. For instance, a sexual assault allegation or a behavior violation may only be known within the fraternity community, while a fraternity-related death may be publicized across campus. Hence, campus-wide effects may differ across these levels of salience. Table 10 explores this heterogeneity, noting that if a moratorium was implemented for an unknown reason, I categorize these as unknown. Column (1) shows the effect of moratoriums that were caused by a sexual assault on alcohol offenses. The effect size is small and statistically indistinguishable from zero. In contrast, a moratorium triggered by a fraternity-related death [column (2)], exhibits a strong and significant 44% reduction from the mean. This is larger than any effect shown in Table 10 or the main results in Table 7, suggesting that particularly salient events (such as a fraternity death) have a particularly strong impact on student behavior, whereas less salient events (such as a behavior violation [column (3)] or sexual assault [column (1)]) have little impact.

Given that fraternity-related deaths cause the highest campus-wide reductions in alcohol violations, it is possible that these effects are being driven by a change in non-fraternity-member (non-members) behavior rather than the fraternity members (members) themselves. For example, typical member behavior could persist, while non-members reduce their partying and alcohol consumption due to this external, and possibly traumatic shock. This would attribute the effect observed to the death itself, rather than a moratorium. However, this is unlikely to be the case given the choice of the ‘never-treated’ group; 15 universities were included in the sample that experienced a fraternity-related death, but never experienced a moratorium. It is reasonable to assume that non-members at the **never-treated** universities experienced a similar shock to those at moratorium universities, and hence, the only

change in behavior across campus should be attributed to the moratorium. Taken together, this implies that the moratorium is changing behavior, not the occurrence of a death.

I further examine the heterogeneous effects by triggering event in Table 11, where sexual assault is the outcome of interest. Column (1) exhibits the effect of a moratorium triggered by a sexual assault on reports of sexual assault where there is a large and significant reduction from the mean of 75%. All other triggering events—death of a student [column (2)], behavior violation [column (3)], and unknown [column(4)]—show statistical zeros. This result may be the result of two mechanisms. The first, as shown in Doleac (2017), is that an increase in the probability of being caught reduces crimes rates, especially in categories where forensic evidence is likely to be used (e.g., rape). Therefore, marginal fraternity members may be dissuaded from engaging in activities that *could* lead them to a sexual assault allegation. Since sexual assaults are common among universities,²³ the enactment of a moratorium intensifies the likelihood of being caught, thus leading to the observed decreases. Second, some fraternity chapters impose mandatory sexual assault training for fraternities following a moratorium. While records on these mandates are incomplete, and often missing entirely, these educational sessions may provide behavior changes for the most at-risk individuals.

6.2.2 Which disciplinary figure is best?

To explore heterogeneity further, I test whether there are differences in the effects of moratorium on offenses between university-enacted and IFC council-enacted moratoriums. There are distinct differences between the two sources of oversight; a university-enacted moratorium is imposed by the overseeing university and IFC council-enacted moratoriums are imposed by the IFC council. Hence, an IFC council-enacted moratorium can be described as a student-enforced action. A university-enacted moratorium generally contains clear guidelines that fraternities must abide by or risk further disciplinary action. On the other hand, it is uncertain what consequences are ascertained when a fraternity breaks the guidelines given

²³Survey evidence from the AAU Campus Climate Survey (2019) shows that the overall rate of non-consensual sexual contact was 13 percent.

by an IFC council.

Table 12 shows the estimated effects of both university-enacted and IFC council-enacted moratorium on alcohol offenses and reports of sexual assault. In columns (1) and (2), alcohol offenses significant decrease in both the full sample (Monday-Sunday) and when restricting to weekends when the university enacts the moratorium. Conversely, there is little statistical evidence that IFC enacted moratoriums have a significant impact on alcohol offenses, with weakly significant decreases appearing on the weekends. Columns (3)-(6) show the effects on reports sexual assault. In each column, reports of sexual assault remain statistically indistinguishable from zero. Collectively, these estimates exhibit the need for strong oversight for moratoriums to be effective. IFC-council imposed moratoriums fail to change behavior across campus, while university-enacted moratoriums result in significant decreases of alcohol offenses.

7 Conclusion

Fraternity moratoriums are effective for reducing university-wide alcohol offenses. While alcohol offenses remain relatively stable on weekdays during moratorium periods, the large decreases occur on Friday through Sunday - days where college partying is most frequent. These decreases are not driven by differences in reporting nor are they the result of a more general decline in alcohol offenses over time. Importantly, these effects are strongly dependent on the source of oversight: when the IFC council imposes a moratorium (e.g. a self-imposed moratorium), the effects disappear in contrast to a university-imposed moratorium. In addition, fraternity moratoriums show weak statistical evidence of decreases in sexual assault. Similarly to alcohol offenses, these effects are strongest on the weekends, lending evidence that the observed decreases are the result of the moratoriums themselves.

Taken together, these results provide support for the drastic reformation of fraternities to significantly improve campus safety. By prohibiting alcohol across all IFC fraternity social

events, campus-wide alcohol offenses declined significantly, and reports of sexual assault decreased on the weekends. Hence, universities can experience large benefits with more restrictive measures on their fraternity's social gatherings. However, it is crucial that these guidelines be enforced by the university, as student-enforced restrictions are ineffective.

It is important to understand that this paper does not provide evidence advocating for the removal of fraternity life. Within this study, none of the universities removed fraternity life, only restricted it. Thus, future research on the impact of removing fraternities from universities is needed to understand the cost/benefit analysis as the answer remains ambiguous: risky fraternity-related behavior could disappear or, on the other hand, worsen if these high-risk individuals are unregulated. Additional policies aimed to improve fraternity and sorority life also need further evaluation. For instance, a new practice termed 'deferred recruitment' prohibits fraternity and sororities from adding new members in the fall semester. While this policy has already taken place at multiple large universities across the country, there is little rigorous evaluation of such procedure. Until further research is completed, there is no clear answer to whether national movements such as "Abolish Greek Life" should be embraced.

8 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

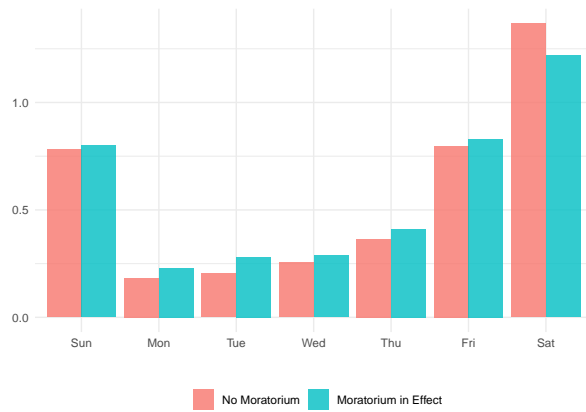
Figure 1: Sigma Alpha Epsilon Member Expectations.

Indiana University, Bloomington
Police Department
Student Right To Know CAD Daily Log
From Jan 20, 2014 to Jan 20, 2014.

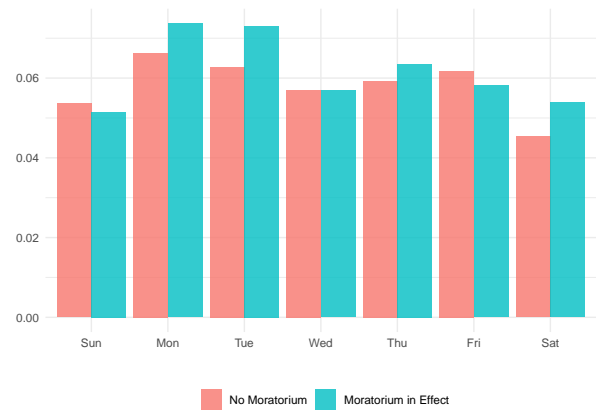
Date Reported: 01/20/14 - MON at 12:22	Location : EIGENMANN HALL	Event #: 14-01-20-001434
Date and Time Occurred From - Occurred To		
Incident : NARCOTIC/DRUG LAWS - POSSESSION - MARIJUANA		Report #:
Disposition: FAILED TO LOCATE		
Date Reported: 01/20/14 - MON at 17:03	Location : ALL OTHER ROADWAYS/INTERS	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.

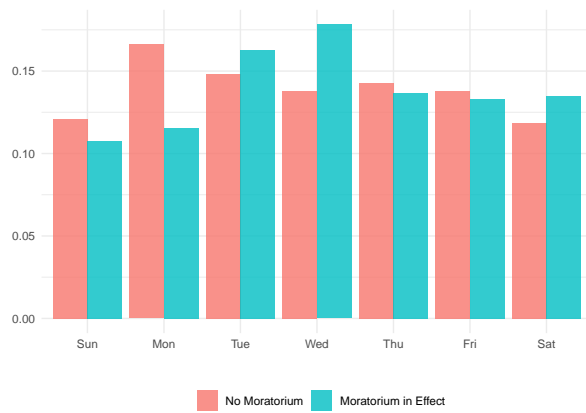
Figure 2: An example of a Daily Crime Log.



(a) Alcohol Offenses



(b) Sexual Assault



(c) Robbery/Burglary

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

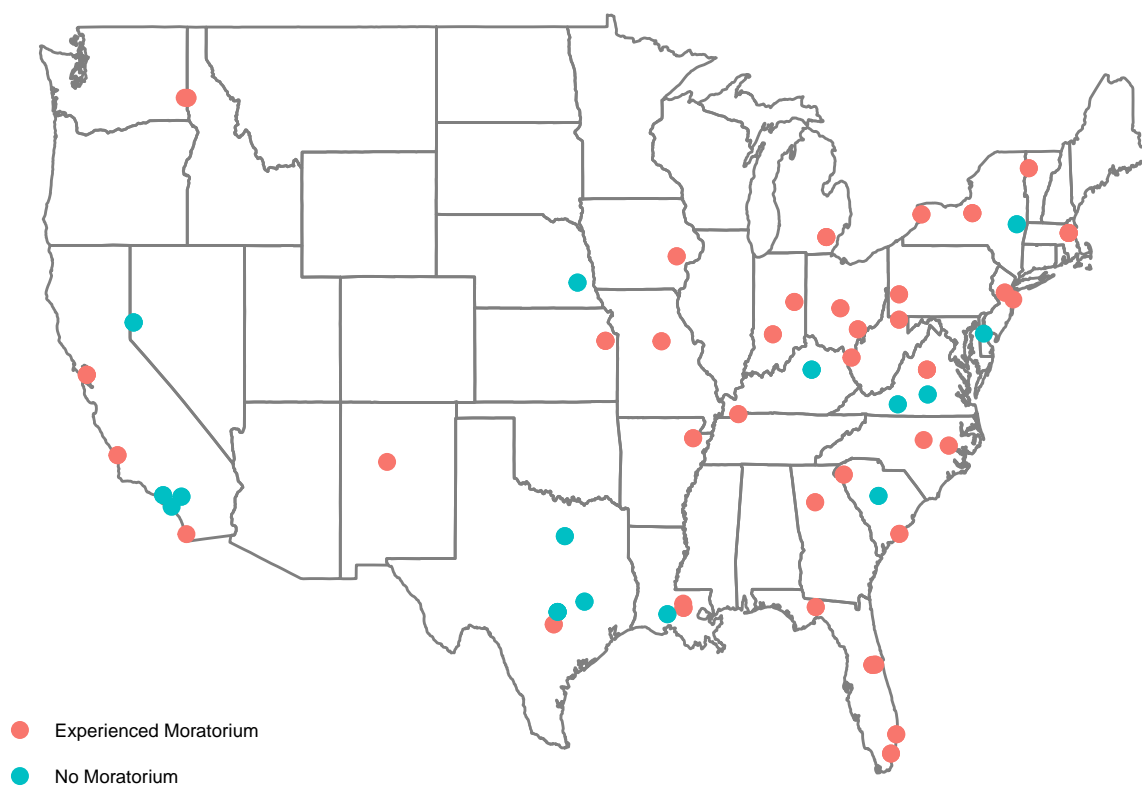


Figure 4: Map of the 53 universities included in the sample. 38 universities experienced a fraternity moratorium, while 15 did not.

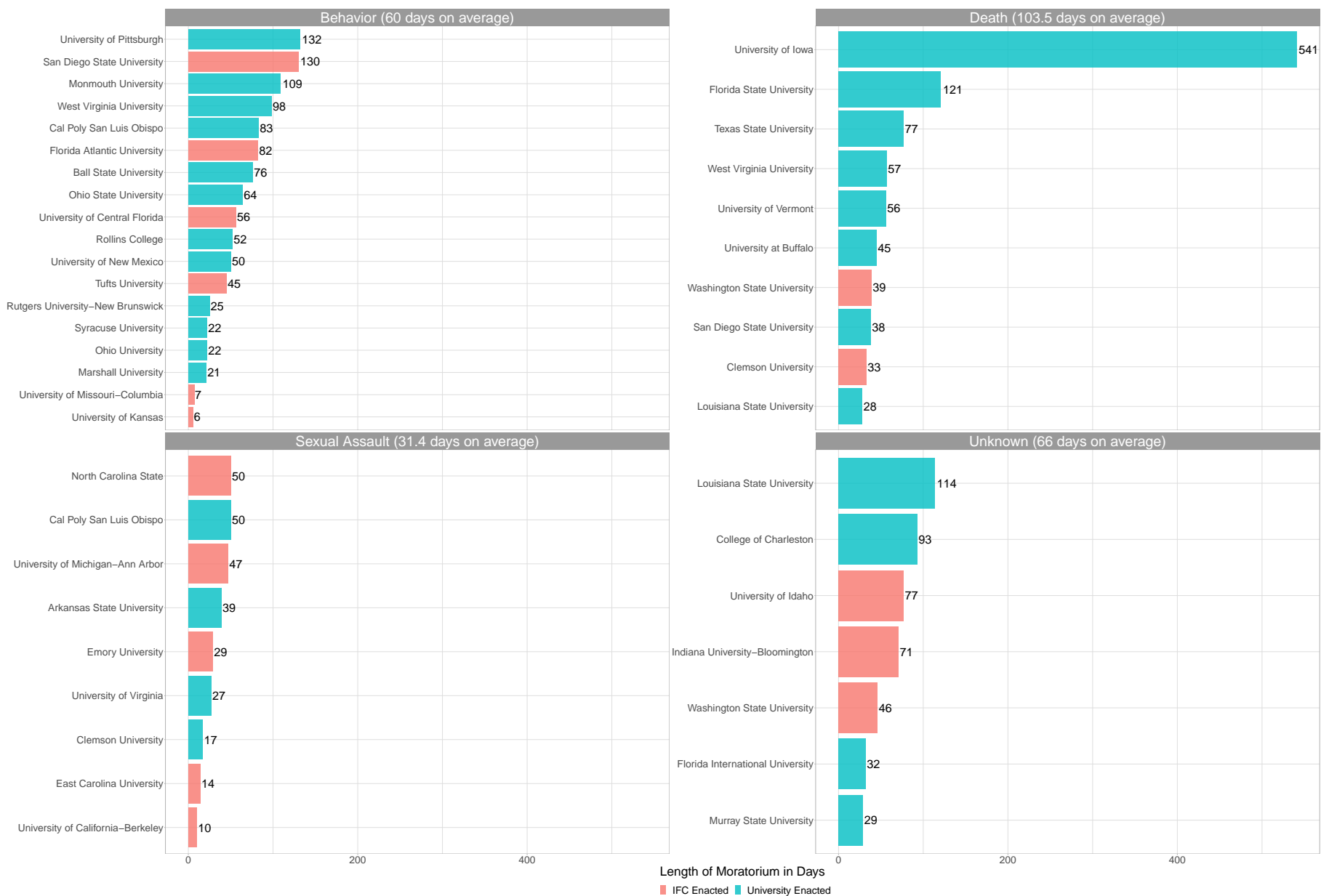
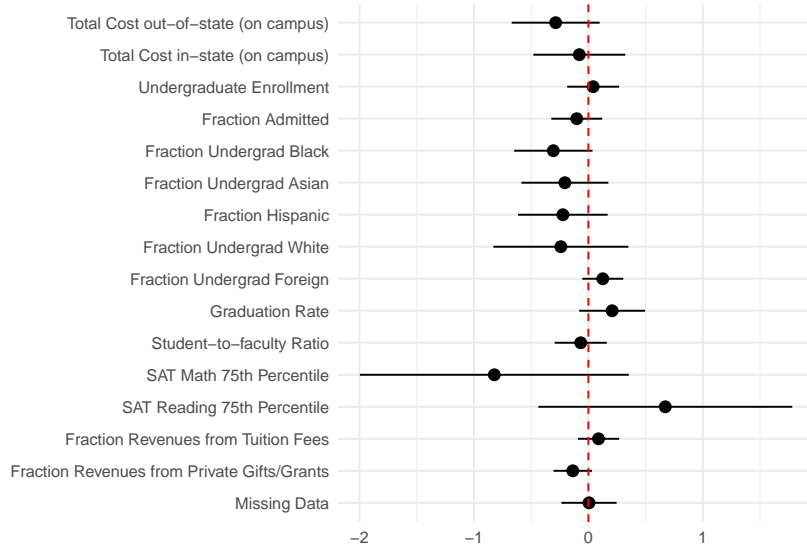
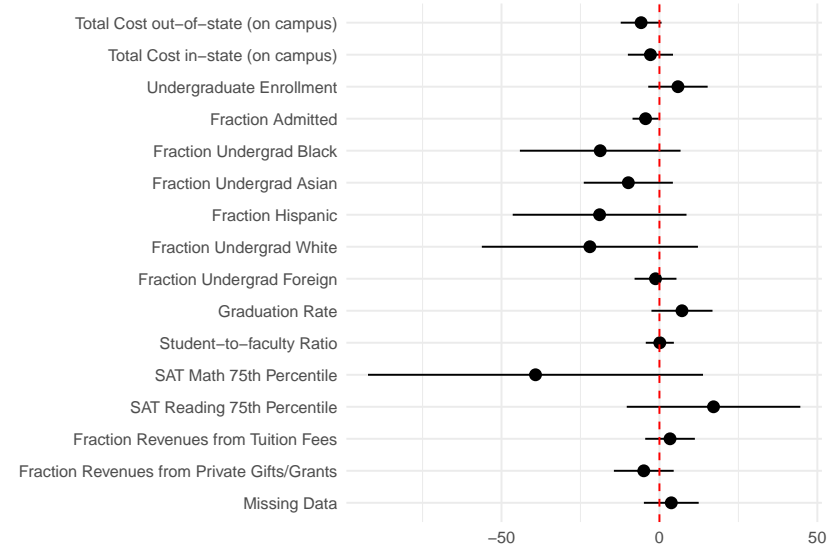


Figure 5: Average number of academic calendar days under moratorium by triggering event of moratorium.



(a) OLS estimation



(b) Logit estimation

Figure 6: Point estimates for each covariate in prediction of a moratorium estimation. Black bars represent 95 percent confidence intervals. All covariates were standardized before estimation.

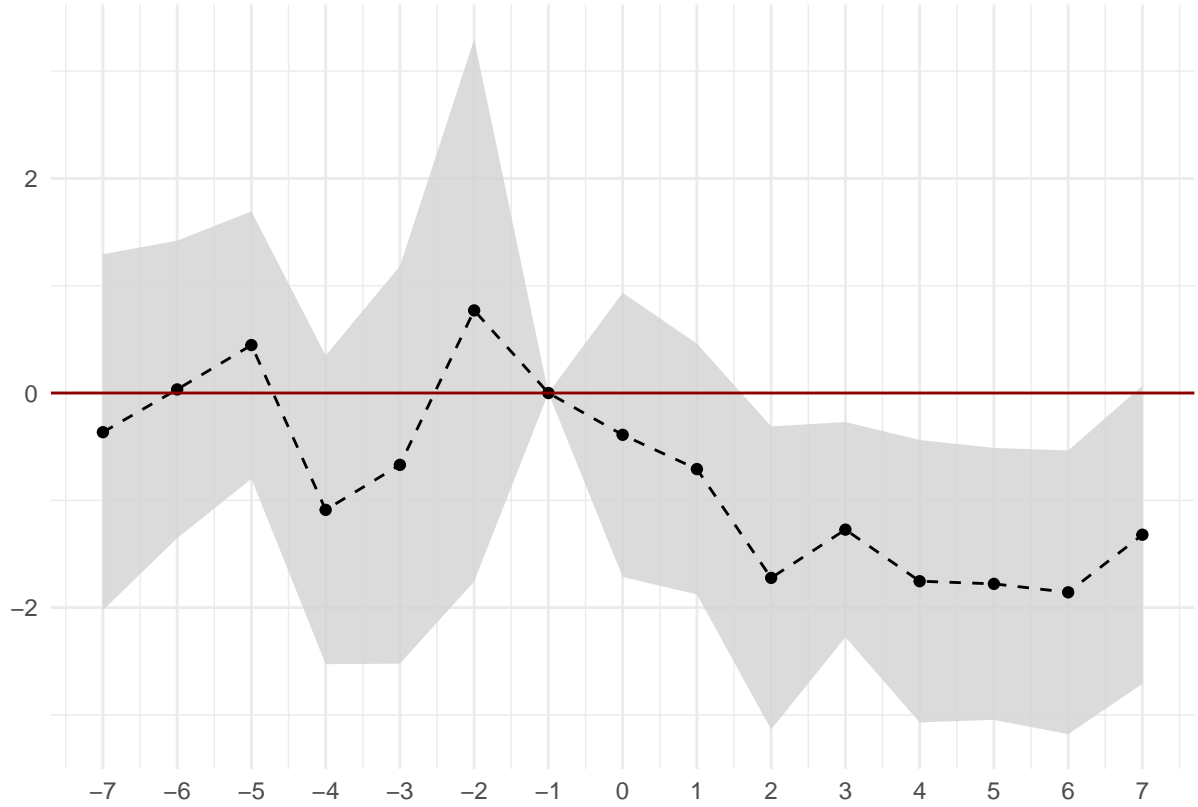


Figure 7: Event study for alcohol offenses. The x-axis represents weeks from moratorium date, with 0 being the week of a moratorium. The week before is removed from estimation as the reference period and the final lead and lag are binned, but not reported. The y-axis is the point estimate of the beta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

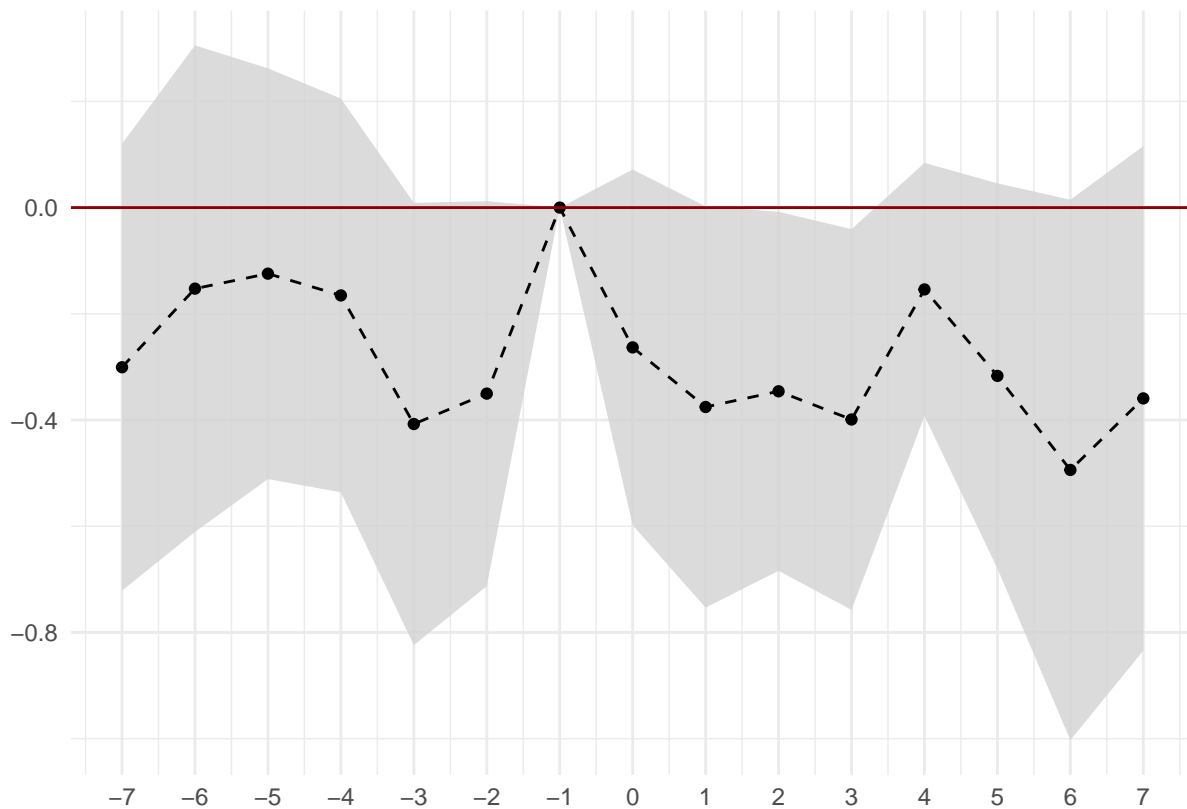


Figure 8: Event study for reports of sexual assault. The x-axis represents weeks from moratorium date, with 0 being the week of a moratorium. The week before is removed from estimation as the reference period and the final lead and lag are binned, but not reported. The y-axis is the point estimate of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

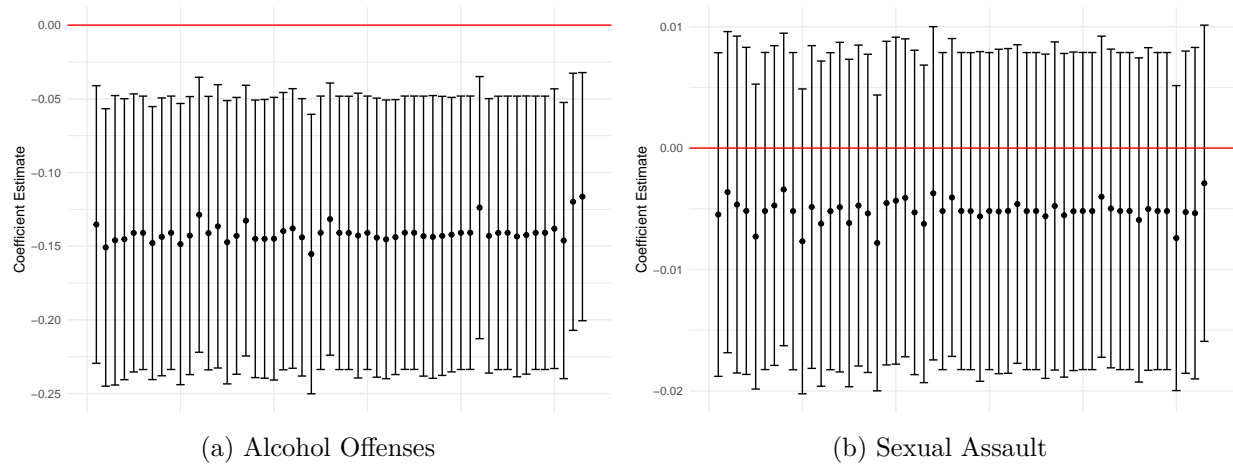


Figure 9: Leave-one-out estimates. The x-axis represents each regression estimation while the y-axis represent the coefficient on moratorium.

9 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
(538) sexual assault	(2882) alcohol offense	(2115) burglary
(424) rape	(2328) public intoxication	(1042) alarm burglary
(389) sex offenses	(2311) abcc violation	(832) auto burglary
(301) sex offense	(1972) dui	(657) 62a - burglary alarm
(282) indecent exposure	(1434) alcohol intoxication	(580) burglary/intrusion alarm
(192) sexual battery	(1272) intoxicated person	(430) burglary-motor vehicle : burglary-motor vehicle
(165) sex offense : sexual battery	(1211) liquor law violation	(366) burglary alarm
(144) csa report: rape	(1010) intx-intoxicated person	(315) larceny/theft-auto burglary -report
(114) criminal sexual conduct	(1001) alcohol - minor in possession	(292) robbery
(88) campus security authority-sex offense	(981) traffic / dui	(258) simple burglary
(77) assist other agency-sex offense	(898) alcohol : alcohol/drug overdose	(227) burglary of vehicle
(69) sexual abuse 3rd degree	(820) minor in possession of alcohol	(202) burglary : burglary-residential
(60) sex offense : rape	(808) minor in possession	(175) assist other agency-burglary
(59) sex offense - rape	(785) buying, consume while underage	(172) vehicle burglary
(56) sex offense - anonymous	(761) liquor laws	(156) breaking and entering
(46) sexual harassment	(740) possession/supply alcohol u/21	(149) burg-burglary
(43) sex offense : undetermined sexual assault	(711) public intox	(121) commercial burglary
(41) sxof-sex offense	(705) driving under the influence	(120) burglary to auto, petit theft
(39) forcible fondling	(653) alcohol - underage use / possession	(115) 62c - burglary of vehicle
(38) sex crime	(625) driving under the influence not counted for ucr	(112) burglary : burglary-commercial
(36) sex offense (except forcible rape or prostitution)	(582) 1 public intoxication	(108) burglary-burglary -report
(36) sexual assault using physical force or coercion; victim does not sustain severe personal injury	(554) alcohol - drunk	(105) 1 burglary: vehicle
(34) fondling	(511) mip	(103) burglary of building
(34) forcible sex offense	(482) offenses involving underage persons	(94) theft by unlawful taking or disposition(movable) burglary by entering structure
(33) obscene activity : indecent exposure	(476) liquor law referral	(93) assist other agency-robbery
(32) 3rd party report sexual abuse 3rd degree	(467) liquor law arrest	(87) burglary/b&c
(32) sexual imposition	(459) driving while intoxicated	(87) robbery : robbery-strong-arm
(31) sex offenses - forcible	(457) intoxication	(84) burglary by entering structure theft by unlawful taking or disposition(movable)
(31) sex offenses sex offenses	(444) alcohol violation	(79) burglary 3rd degree
(30) sexual abuse	(435) minors in possession of alcohol	(78) burglary offenses

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		
Delaware State University				
East Carolina University	2015-01-28	2015-02-11		
Emory University	2014-11-03	2014-12-02		
Ferrum College				
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		
Hampden-Sydney College				
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
SUNY at Albany				
Syracuse University	2019-11-17	2019-12-09		
Texas A & M University-College Station				
Texas Christian University				
Texas State University	2017-11-14	2018-02-26		
The University of Texas at Austin				
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 California-Irvine				
University of California-Riverside				
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 Kentucky				
University of Louisiana at Lafayette				
University of Michigan-Ann Arbor	2017-11-09	2018-01-03		
University of Missouri-Columbia	2018-03-06	2018-03-13		
University of Nebraska-Lincoln				
University of Nevada-Reno				
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 South Carolina-Columbia				
University of Southern California				
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.

		Friday - Sunday				Monday - Thursday			
	Moratorium	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	0.96	2.51	0.00	93.28	0.25	1.51	0.00	116.60
Sexual Assault	In Effect	0.05	0.28	0.00	4.05	0.06	0.30	0.00	3.69
	No Moratorium	0.05	0.42	0.00	23.90	0.06	0.48	0.00	25.18
Robbery/Burglary	In Effect	0.12	0.57	0.00	13.06	0.14	0.51	0.00	7.63
	No Moratorium	0.13	1.07	0.00	121.71	0.15	0.89	0.00	73.03

Outcome variables are per 25,000 enrolled students.

Table 5: University summary statistics of the 53 universities

	Mean	SD	Median	Min	Max
Total Enrollment	27947.36	15555.50	28409.00	993.00	69402.00
Total Undergrad Enrollment	21460.36	12289.95	20830.00	993.00	59371.00
Fraction Asian	0.08	0.09	0.04	0.00	0.41
Fraction Black	0.08	0.10	0.06	0.01	0.70
Fraction Hispanic	0.13	0.13	0.07	0.02	0.68
Fraction White	0.59	0.20	0.64	0.08	0.86
Graduation Rate	69.66	14.63	70.00	25.00	95.00
SAT Math 75	653.44	70.39	650.00	480.00	790.00
SAT Reading 75	637.83	56.78	640.00	460.00	760.00
Fraction Admitted	0.59	0.21	0.60	0.11	0.96
Fraction Private	0.16	0.37	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.	68072	68072
Mean of Dependent Variable	0.015	0.003
Std. Errors	Clustered (university)	Clustered (university)
FE: uni_semester	X	X
FE: weekday	X	X

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

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

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

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

Table 7: Effect of Fraternity Moratoriums on Sexual Assault and Alcohol Offenses

	Alcohol Offense			Sexual Assault		
	(1)	(2)	(3)	(4)	(5)	(6)
	Full Sample	Weekends	Weekdays	Full Sample	Weekends	Weekdays
Moratorium	-0.141** (0.047)	-0.277** (0.099)	-0.039 (0.034)	-0.005 (0.007)	-0.017+ (0.009)	0.004 (0.009)
Num.Obs.	77754	33359	44395	77754	33359	44395
Mean of Outcome	0.556	0.958	0.253	0.060	0.054	0.064
Std. Errors	Clustered (university)	Clustered (university)	Clustered (university)	Clustered (university)	Clustered (university)	Clustered (university)
FE: uni_semester	X	X	X	X	X	X
FE: weekday	X	X	X	X	X	X

Weekdays include Monday, Tuesday, Wednesday, Thursday.

Weekends include Friday, Saturday, and Sunday.

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

Reports of sexual assault and counts of alcohol offenses are per 25,000 students enrolled.

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

Table 8: Effect of Fraternity Moratoriums on Sexual Assault and Alcohol Offenses: Poisson Estimation

	Alcohol Offense			Sexual Assault		
	(1)	(2)	(3)	(4)	(5)	(6)
	Full Sample	Weekends	Weekdays	Full Sample	Weekends	Weekdays
Moratorium	-0.332*** (0.092)	-0.382*** (0.105)	-0.198 (0.176)	-0.098 (0.128)	-0.351+ (0.180)	0.066 (0.155)
Num.Obs.	74474	31290	40157	69803	26247	37094
Mean of Outcome	0.556	0.958	0.253	0.060	0.054	0.064
Std. Errors	Clustered (university)	Clustered (university)	Clustered (university)	Clustered (university)	Clustered (university)	Clustered (university)
FE: uni_semester	X	X	X	X	X	X
FE: weekday	X	X	X	X	X	X

Weekdays include Monday, Tuesday, Wednesday, Thursday.

Weekends include Friday, Saturday, and Sunday.

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

Poisson regression drops some fixed effects (and hence observations) when no variation occurs.

Reports of sexual assault and alcohol offenses are counts.

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

Table 9: Effect of Fraternity Moratoriums on Robbery/Burglary

	(1)	(2)
	OLS	Poisson
Moratorium	0.007 (0.014)	0.050 (0.100)
Num.Obs.	77754	73815
Mean of Outcome	0.141	0.958
Std. Errors	Clustered (university)	Clustered (university)
FE: uni_semester	X	X
FE: weekday	X	X

Estimates include all days of the week (Mon-Sun).

Poisson regressions are counts.

Reports of robbery for ols regressions are per-25,000 students enrolled.

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

Table 10: 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		-0.247** (0.074)		
Moratorium x Triggering Behavior Violation			-0.091 (0.056)	
Moratorium x Triggering Event Unknown				-0.137+ (0.078)
Num.Obs.	77754	77754	77754	77754
Mean of Alcohol	0.556	0.556	0.556	0.556
Std. Errors	Clustered (university)	Clustered (university)	Clustered (university)	Clustered (university)
FE: uni_semester	X	X	X	X
FE: weekday	X	X	X	X

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

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

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

Alcohol offenses are per-25,000 students enrolled.

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

Table 11: 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.	77754	77754	77754	77754
Mean of Sexual Assault	0.060	0.060	0.060	0.060
Std. Errors	Clustered (university)	Clustered (university)	Clustered (university)	Clustered (university)
FE: uni_semester	X	X	X	X
FE: weekday	X	X	X	X

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

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

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

Sexual assaults are per-25,000 students enrolled.

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

Table 12: 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* (0.115)	-0.042 (0.045)	-0.002 (0.008)	-0.017 (0.011)	0.010 (0.011)
Moratorium x IFC Enacted	-0.159 (0.098)	-0.344+ (0.184)	-0.032 (0.044)	-0.013 (0.012)	-0.017 (0.012)	-0.011 (0.017)
Num.Obs.	77754	33359	44395	77754	33359	44395
Mean of Outcome	0.556	0.958	0.253	0.060	0.054	0.064
Std. Errors	Clustered (university)	Clustered (university)	Clustered (university)	Clustered (university)	Clustered (university)	Clustered (university)
FE: uni_semester	X	X	X	X	X	X
FE: weekday	X	X	X	X	X	X

Weekdays include Monday, Tuesday, Wednesday, Thursday.

Weekends include Friday, Saturday, and Sunday.

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

Sexual assaults are per-25,000 enrolled students

Alcohol offenses are per-25,000 enrolled students

University-enacted moratorium is a university-enforced moratorium.

IFC-enacted moratorium is a student-enforced moratorium.

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

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