Empirical Strategy

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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 nature 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 1, 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 BLANK), and the satisfaction of common trends (see Section)

$$Y_{u,t} = \beta Moratorium_{u,t} + \gamma_{u,semester} + \alpha_{weekday} + \epsilon_{u,t} \tag{1}$$

University-by-semester fixed effects are included to remove any time-invariant differences between university-semesters. For instance, fraternity recruitment events vary across university-semesters (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 an 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. In particular, I extracted academic calendars[1] using the "first-day of classes" as the start-date of the fall semester, the "finalized grade date" for the end of the semester, and added a seven-day period to each beginning and end of a semester to account for slight variations across years.[2] 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.

Threats to Identification

Based on this empirical strategy, the main challenges with interpreting β as the causal effect of fraternity moratoriums come from two separate channels: changes in reporting and ex-ante trends. First, it is important

[1] Academic 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.

[2] However, 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.

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 these possibilities of reporting differences, I test whether there is a significant change in the proportion of offenses that are reported with a lag on moratorium 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 days[3] past 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 1, 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.

Moreover, β would not represent the causal effect of fraternity moratoriums if university police incidences/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,[4] following Equation 2.

$$Y_{u,t} = \sum_{j}^{J_u} \sum_{d=-8, d\neq -1}^{8} 1(t - e_j^u = d)\beta_d + \gamma_{u,semester} + \epsilon_{u,t} \tag{2}$$

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 jth event, and $1(t - e_j^u = d)$ is an indicator function. The remaining parameters are described similarly as in Equation 1. 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).[5]. Figure **??** and **??** show the estimated coefficients and confidence intervals for alcohol offenses and reports of sexual assault respectively. Figure **??** displays no signs of ex-ante trends for alcohol offenses- the estimated coefficients are all statistically insignificant and oscillate around 0 prior to a moratorium. While Figure **??** 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.

De Donato, Andrew, and James Thomas. 2017. "The Effects of Greek Affiliation on Academic Performance." *Economics of Education Review* 57 (April): 41–51. https://doi.org/10.1016/j.econedurev.2017.01.004.

Sahay, Abhilasha. 2021. *The Silenced Women: Can Public Activism Stimulate Reporting of Violence Against Women?* Policy Research Working Papers. The World Bank. https://doi.org/10.1596/1813-9450-9566.

Schmidheiny, Kurt, and Sebastian Siegloch. 2020. "On Event Studies and Distributed-Lags in Two-Way Fixed Effects Models: Identification, Equivalence, and Generalization." *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.3571164.

[3] In Appendix Table BLANK, I change the definition of reporting with a lag to encapsulate a large variety of intervals. None of which are statistically significant.

[4] I 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.

[5] Moreover, 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.