

I respond to all editor and referee comments in this document. I have created sections and subsections in order to help organize the response. I also provide all figures and tables at the end of this document so that they can be linked to my responses to the comments and suggestions. Section 0 responds to the suggestion from the editor. Section 1 includes responses to all comments and suggestions provided by Referee #1, Section 2 responds to comments and suggestions from Referee #2, Section 3 responds to the report provided by Referee #3, and Section 4 responds to suggestions from Referee #4. Note that all comments and suggestions from the referees are in boxes. Also, note that in the Appendices attached there are unlinked references. These references are correctly linked in the main paper, but could not be linked in this cover letter.

0 Response to the Editor

0.1 Suggestion for Improvement

Your analysis is a straight-up policy evaluation, which is fine and the JHR has published a number of papers of this type. Still, in their letters to me, all the reviewers raise the question whether this is an important enough question to warrant publication in the JHR. They fall on both sides of the divide, about equally split. R2 has perhaps the strongest concerns along those lines, which are outlined also in their comments to you. I believe it is an important question and goes to the core issue of whether university policies have any bite. However, the fact that all reviewers have the same concern signals to me that the importance of the question and the implications from your analysis could be emphasized more strongly and perhaps positioned in a somewhat wider literature.

Thank you for your helpful insight on how to better phrase the core question of this paper. To emphasize the question and position this paper in a wider literature, I have revised the eighth paragraph (page 3) of the introduction as shown in the following excerpt. Note that the new material is in italics:

More broadly, this paper adds to the literature in several bodies of work, the first of which is the effect of college partying. While the literature shows that college partying increases daily reports of rape and alcohol offenses when using football game variation (Lindo, Siminski, and Swensen 2018), this study more directly focuses on a policy tool that reduces college partying. I later analyze in Section 7.1 whether moratoriums have mitigating effects on college partying behavior when coinciding

with college football game-days, although I find no clear evidence in support of this. *Second, this paper contributes to an emerging body of economic work relating to the effectiveness of both university policy, and more specifically, fraternity policy. Although broad university policies such as academic probation (Lindo, Swensen, and Waddell 2013) and financial aid (Dynarski 2003) have been found to be effective in improving GPA and recruiting students respectively, there are only two studies as of this writing that analyze fraternity-targeted policies which both study the effects deferring fraternity recruitment from freshman to sophomore year (De Donato and Thomas 2017; Even and Smith 2020). Notably, neither of these policies focus on university crime. Currently, only one related work has focused on fraternities and crime (Raghav and Diette 2021), although this study focuses on how the size of a fraternity population effects campus crime rather than the effect of a typical fraternity policy. Last, this paper adds to the literature relating to the effects of alcohol on college-aged individuals which include health effects, such as increases in mortality (Carpenter and Dobkin 2009), emergency room visits (Francesconi and James 2019), and adolescent brain development (Silveri 2012), and behavioral effects, such as increases in crime (Carpenter and Dobkin 2015) and hindering academic performance (Carrell, Hoekstra, and West 2011; Ha and Smith 2019).*

In addition to this change, I have updated the nomenclature of the original model in Equation 1 shown on page 11. The treatment variable now reads $InMoratorium_{u,t}$ rather than $Moratorium_{u,t}$ to more consistently align with the tables and figures. The equation now reads:

$$Y_{u,t} = \beta InMoratorium_{u,t} + \gamma_u + \lambda \mathbb{X}_t + \epsilon_{u,t} \quad (1)$$

1 Response to comments from Referee #1

1.1 Suggestion for Improvement

In the section about spillover analysis using Campus Safety and Security (CSS) data, the author has not specified if they used arrests for liquor law violations, disciplinary actions for liquor law violations, or some (weighted) average of both. Under Clery Act 1990, both the number of arrests and the number of disciplinary actions in residence halls (and elsewhere) are collected and reported by colleges and universities. However, the author

has failed to specify which of the two they have used in this section of the paper. Not only should the author clearly specify which of these two variables is being used for the analysis in this section, but I would suggest that the author run separate analyses using each of the two variables (the number of arrests and disciplinary actions due to liquor law violations in residence halls) so that the reader can get some additional insights.

This is an excellent suggestion as the delineation between disciplinary actions and arrests is important for interpretation, clarity, and replication purposes. In the reviewed draft, the Campus Safety and Security (CSS) analysis uses disciplinary actions for liquor law violations and excludes arrests. As suggested, I have extended the analysis to include both disciplinary actions and arrests for liquor law violations in Appendix C and updated the final two paragraphs of Section 5.2 with additional commentary. Both of these extensions are further explained in the following paragraphs.

In Appendix Table C1, I delineate between disciplinary actions and arrests in the CSS data for alcohol offenses by adding Columns 4 and 5 which analyzes the effect of moratoriums on arrests for all reports in the CSS and residence hall incidents respectively. Columns 4 and 5 show that there is little evidence of arrests changing at universities, regardless of the location. In particular, for each additional moratorium day in a calendar year, alcohol arrests per-25000 enrolled students do not exhibit any statistically significant decrease and the point estimates are relatively small when compared to disciplinary actions. This is consistent with the literature that campus police do not commonly arrest students for underage drinking (Bernat et al. 2014). Hence, while there is evidence that moratoriums affect student alcohol behavior, there is little evidence that moratoriums affect arrests for alcohol violations. In light of these findings, I update the final paragraph of Appendix C to reflect this analysis:

However, there is little evidence of an effect on liquor law arrests as shown in Columns 4 and 5—consistent with the literature that campus police do not typically arrest students for alcohol violations (Bernat et al. 2014). As discussed in Section 5.2, this supports the notion that if moratoriums displace alcohol-fueled behavior, they displace it to *less* risky areas whereby behavior can more easily be intervened before it becomes dangerous.

Given the lack of significance and small point estimates in the arrest columns, I update the final two paragraphs of Section 5.2 to address the delineation between arrests and disciplinary actions and save the additional analysis of arrests for Appendix C. However, I am happy to move the analysis to the main paper upon the editor's request. The following is an excerpt from the updated Section 5.2 in the main paper:

As the second set of analysis, I analyze the CSS data to examine if students substitute partying at fraternity houses to different on-campus locations during moratoriums. The CSS data contains all disciplinary actions and arrests corresponding to liquor law violations in addition to reports of sexual assaults that occur in a calendar-year...

The extension continues in the final paragraph where I more directly assert the findings:

Using the CSS data, there is evidence that moratoriums move drinking from fraternity houses to residence halls. Residence halls show a 0.270 *increase* in yearly disciplinary actions of alcohol offenses for each additional moratorium day in a calendar-year. Interestingly, this is accompanied by a 0.033 *decrease* in yearly residence hall sexual assault reports.

Finally, the text of Appendix C more closely describes the CSS data used and the corresponding results. As noted at the beginning of the document, the appendices are included at the end of this document for convenience.

2 Response to comments from Referee #2

2.1 Suggestion #1: Weighting

I'm not sure the results are strong enough. Qualitatively, the results are unsurprising - banning activities with involve alcohol will likely reduce crimes which involve alcohol. Quantitatively, the results are imprecise, and hence difficult to interpret confidently. The point estimates seem very large, alcohol related crimes reduced by 26% despite the fraction of the students enrolled in IFC fraternities being less than 5%. I'm not dismissing this magnitude as unfeasible - especially if the author could show some more supplementary evidence on the likely share of such crimes that are associated with fraternities. However, the CIs are wide, and do not rule out very small effects, so it is not clear whether or not the effects are actually 'large'. Of course these issues are true to a greater extent for the more imprecise results for sexual assault.

Two suggestions which may improve precision: To weight by total enrollment (or perhaps undergraduate enrollment if you feel that is more appropriate). Larger schools should have less residual variation, so weighting by size should reduce standard errors. The variance in school size should be large enough for this to make a difference.

Thank you for the thoughtful suggestion on how to tighten/strengthen the main results of the paper. First, I agree that despite the large point estimates, the standard errors do not rule out small effects. To reconcile this, I have deleted all language where I describe the effects as large. However, as pointed out, these estimates are not unfeasible. Although the data cannot delineate whether an incident is associated with fraternities, non-members are also likely affected by moratoriums as fraternity parties are a substantial source of partying for all undergraduates ([Harford, Wechsler, and Seibring 2002](#)). Moreover, the magnitude (29% on weekends) for the decreases in sexual assaults are in-line with the increases (28%) found due to intensifying partying in Lindo, Siminski, and Swensen ([2018](#)).

Second, as recommended, I have explored weighting by total enrollment to tighten the main results. Unfortunately, the weights do not tighten the results to a significant degree. However, the results remain extremely consistent with their unweighted counterpart. I elaborate more in the following paragraphs.

Table [E5](#) shows the estimations of Table [4](#) (the main results table) with total enrollment weights. The preferred specification reported in Column 2 of Panel A shows that the point estimates are nearly identical to the unweighted estimation for alcohol offenses, exhibiting a 26.5% decrease from the mean rather than a 27.8% decrease. Furthermore, the standard

errors are reduced minimally, ruling out decreases smaller than 5.6% (weighted) rather than 4.3% (unweighted) with 95% confidence. Similarly, in Column 2 of Panel B, sexual assaults exhibit a 16% decrease—a four percentage point drop from the 20% decrease shown in the unweighted estimation. While this result is now significant at the 10% level, the change in p-value from unweighted to weighted is small with a difference of 0.04. Moreover, the weekend analysis in Column 4 also remains consistent across both weighted and unweighted regressions for each offense. In particular, alcohol offenses show a 29.3% decrease from the mean (weighted) rather than a 28.7% decrease (unweighted) and the standard errors rule out decreases smaller than 4.1% (weighted) rather than 2.6% (unweighted). For sexual assaults, weekends with moratoriums show a 32.7% decrease from the mean (weighted) rather than a 29.3% decrease (unweighted). Note that the p-value decreases as well, with the unweighted weekend estimation showing a p-value of 0.021 (5% significance) instead of 0.091 (10% significance).

To maintain transparency, I have included the weighted regressions in Appendix E. In addition, I have also alluded to these estimations when discussing the main results in paragraph three of Section 5.1 which reads:

Third, due to the large variation in university size, I weight the models in Table 4 by total enrollment in Appendix Table E5. The weighted estimations exhibit similar results to the unweighted models—alcohol offenses and sexual assaults decrease by 29 and 32 percent on the weekends respectively, while the standard errors remain similar in magnitude.

Last, for ease of comparison between the weight and unweighted results, I have included a figure that is unique to this cover letter in Appendix Figure F1. In this figure, I plot the point estimates and 95% confidence intervals for each of the columns in Table 4 (unweighted) and Table E5 (weighted). The figure demonstrates that the results are largely similar with minimal gains in precision across most specifications. Notably, Columns 3 and 5 of alcohol offenses lose precision when using the weighted estimations.

2.2 Suggestion #2: Leverage IFC Variation

To interact the treatment variable with the share of students who are in IFC fraternities. Perhaps I'm missing something, but I would expect the effect size to be essentially proportional to the proportion in IFC fraternities. To be clear, I'm suggesting replacing Moratorium (in equation 1) with $\text{Moratorium} * \text{Fraction_IFC}$.

This is a great suggestion, also proposed by Referee #4. Prompted by this suggestion, I have collected the additional data needed for this analysis as I was previously missing four universities' IFC population numbers. I append Section 6.1, “Do Party Schools Exhibit the Strongest Effects?” with a small discussion on this analysis:

Similarly, Appendix D explores whether universities that have relatively more *fraternity* life—defined by the fraction of undergraduate students enrolled in an IFC—display larger effects. By supplementing the preferred specification with an interaction between the $InMoratorium_{u,t}$ treatment variable and the fraction of undergraduates in an IFC fraternity, there is evidence that universities with more fraternity life show larger declines in alcohol offenses during moratoriums. Although statistically insignificant, the point estimates are negative, thereby hinting at the possibility that moratoriums are more effective when a higher fraction of students are directly affected by its guidelines.

As alluded to in the excerpt, I include a more thorough discussion of this exercise in the newly added Appendix D. This thorough discussion is omitted from the main paper due to the statistically insignificant results. I have copied text from the new Appendix D in what follows:

In this appendix, I analyze whether universities with a higher fraction of undergraduates belonging to IFC fraternities exhibit larger effects during a moratorium. Each university in the sample has a different share of their student population with IFC membership. Recall from Table 2 that the fraction of undergraduate students with IFC membership can range from 1% to as high as 11%. Presumably, a moratorium has a greater effect on student behavior when the restrictions apply to a greater share of students.

To conduct this analysis, I supplement the preferred specification with an interaction of $InMoratorium_{u,t}$ and $FractionIFC_u$, where $FractionIFC_u$ is the earliest recorded count of IFC fraternity members over 2014-2019 at university u , divided by the undergraduate enrollment, and centered at its mean. I use the earliest count of IFC members for two reasons; first, to avoid the potential issue of declines in IFC membership after a moratorium due to permanent suspensions of specific IFC chapters, and second, many universities do not maintain records of IFC numbers for every year in the sample period. However, in the universities that do supply complete records, I do not find substantial semester-to-semester changes in IFC

populations.¹ Therefore, an early one-year measure of the IFC population is a good approximation for the other corresponding years. In effect, the interaction of $InMoratorium_{u,t}$ and $FractionIFC_u$ creates a measure of moratorium intensity—universities with a higher fraction of IFC members receive a more intense treatment than universities with lower shares.

Table D1 reports evidence that moratoriums with a higher fraction of student enrollment belonging to an IFC fraternity exhibit larger decreases in alcohol offenses during a moratorium. In Column 1 of Panel A, the point estimate shows that a moratorium with a 10% higher share of IFC members results in a 0.023 decrease in the number of alcohol offenses per-25000 enrolled students. This effect is not statistically significant, although the effect is strongest on the weekends. Similarly, in Column 1 of Panel B, the point estimates for the interaction term show that moratoriums in universities with a higher share of IFC members exhibit larger decreases of sexual assaults. However, these decreases do not persist on weekends (Column 2) and none of the point estimates are statistically significant. Given the insignificance of the results, there is only evidence that the share of IFC members affects the impact of moratoriums.

¹West Virginia University is an exception to this. Their official IFC count decreased by over 60 percent in years following the moratorium.

3 Response to comments from Referee #3

3.1 Major Comment 1: Effect of a Death

In reading the manuscript, I was initially concerned that the author was not going to address the critical assumption that a triggering event that may lead to a moratorium does not also lead students to change their behavior in ways that would reduce alcohol offenses or sexual assaults - the outcomes of interest. It is plausible that the death of a peer as a result of risky behavior at a fraternity would lead students at the university to at least temporarily change their behavior in ways that would reduce alcohol offenses and sexual assaults. This concern would seem to merit discussion in section 4.2 "Identification Assumptions". While the author addresses the concern that the timing of fraternity moratoriums are as-good-as-random, it would seem equally important that the triggering event is not influencing both existence of a moratorium and the outcomes of interest. This analysis, that was critical for me to view the estimated effects as credibly causal, comes at the very end of the paper in section 6.2. This section "Does the Triggering Event for a Moratorium Matter?" primarily focuses on whether it matters if the triggering event is "...the result of a fraternity-related death, a prominent sexual assault, or a behavior violation." Finally, the author gets to the critical statement on page 24 "To ensure that this is the effect of the moratorium rather than the triggering death, Appendix Figure C7 shows the preferred specification restricted to only the universities that experienced a fraternity-related death with an additional 15 universities that experience a fraternity-related death in the same period, but did not undergo a moratorium." These additional universities and their experiences with a fraternity-related death but no moratorium provide a valuable comparison group. I believe the author needs to clarify the estimation equation used in this figure - I am assuming the author did what I would hope, but found the text and note in the figure less than clear. I also believe the author needs to put a greater spotlight on this issue and more clearly present the results, even if it weakens the findings. The results would still be important. However, as a college administrator considering a moratorium, I want to clearly understand the best estimate for how much I would be expected to reduce alcohol violations and sexual assaults by implementing a moratorium after a fraternity-related death of a student - beyond any expected reduction resulting from just the triggering event. The estimated impact of moratoriums on sexual assaults, in Figure C8, are not even explicitly mentioned in the text for this specification and sample.

Thank you for the excellent comment on this work. I agree that it is indeed plausible that the effect of a death—rather than the moratorium itself—could be contributing to the reductions in alcohol offenses that this paper shows and needs greater emphasis for the main results to be interpreted as causal. As suggested, I have highlighted this concern in Section 4.2 by including it as an additional assumption of the model (see page 12). I have also included a more in-depth discussion of this assumption in paragraph 6 of Section 4.2 which more directly responds to this concern:

To evaluate the third assumption that the triggering event is not changing student behavior, I perform heterogeneity analysis in Section 6.2 and analyze the effect of a moratorium by each triggering event. As discussed further in Section 6.2, I find that the main results are driven by moratoriums that are triggered by fraternity deaths. While it is plausible that the shock of a death, rather than a moratorium, contributes to behavior changes in students, I construct a sample of 15 universities that undergo a fraternity-related death *without* a moratorium and assign a 64-day treatment (the average length of a moratorium) starting with the day of the death. In doing so, I find little evidence that alcohol offenses or sexual assaults decrease due to the shock of a death.

As alluded to in the excerpt above, I conduct a stronger test of the triggering event assumption in Section 6.2 using a suggestion from Referee #4 in which I estimate the main specification with the 15 universities that undergo a fraternity-related death but do not undergo a moratorium. This test is distinct from the previous weak test that used these 15 universities as never-treated control units and more directly tests the effect of a death without a moratorium. Therefore, I have removed the old test, as this new analysis provides clearer evidence that the event of a death does not contribute to decreases found in the main results. Additionally, as suggested, Appendix Figures E8 and E9 have been reworked organizationally to more clearly delineate between the different samples: Panel A includes the main sample, Panel B includes the main sample with the addition of never-treated units, Panel C includes only the 15 universities that experience a fraternity-related death, but do not undergo a moratorium, and Panel D includes the universities from Panel C, with the addition of the never-treated units that were included in Panel B to increase power.

Last, as suggested, I have updated Section 6.2, paragraph 2, to discuss this analysis in greater detail:

Figure 10 reports that the effect of moratoriums is more prominent when the corresponding trigger is a death or sexual assault rather than a behavior violation.

In particular, alcohol offenses decline significantly when a fraternity-related death is the triggering event. To ensure that this is the result of the moratorium rather than the triggering death, I use an additional 15 universities that experienced a fraternity-related death in the sample period, but *did not* undergo a moratorium.² Hence, these supplemental universities are those whose students experience the effect of a fraternity-related death, but do not experience a moratorium. First, I exclusively analyze these 15 non-moratorium universities by creating a 64-day binary treatment variable, beginning with the date of the death. A 64-day period is chosen as it is the average length of a moratorium. Next, I estimate the preferred specification using the 64-day period after the death in lieu of the $InMoratorium_{u,t}$ treatment variable. Panel C of Appendix Figures E8 and E9 show that there is little evidence of declines in alcohol offenses or sexual assaults following a fraternity-related death without a moratorium. The point estimates for alcohol offenses are consistently positive, while both offenses exhibit insignificant estimates at the 10% level. To increase precision, I supplement this analysis in Panel D of Appendix Figures E8 and E9 by including the 14 never-treated schools that are used in Section 5.3 as never-treated controls for the effect of a death. As shown, the point estimates remain consistent across both of these analyses and the statistical significance does not change. Taken together, there is little evidence suggesting that a fraternity-related death contributes to the decreases shown in alcohol and sexual assault offenses during a moratorium. Instead, this points to the possibility that students may more seriously abide by the moratorium guidelines when the triggering event is a death.

3.2 Major Comment 2: Progression of a Moratorium

The author also suggests that the finding might inform administrators of the potential benefit of making a moratorium permanent. To address this question and to provide further evidence that the moratorium is causing the change and not the triggering event, I believe the author should also consider further examination of the variation in the length of the moratoriums. The author does explore the average daily effect of moratoriums across three lengths (Table 6). I was rather surprised to find the shortest moratoriums to have no effect (and a positive point estimate on alcohol offenses). Presumably none

²These universities were found using Hank Nuwer's repository of hazing-related deaths in the US: <https://www.hanknuwer.com/hazing-deaths/>.

of these short moratoriums were due to a student death? As a reader, I was certainly left wondering if this was due to the type of triggering event. What I was hoping to see was an analysis that explicitly examined whether there are heterogeneous impacts of the moratorium by how long it has been in effect. Over time, does the effect diminish within the moratorium? My understanding of the analysis is that the author explores different periods after the conclusion of a moratorium, but not different time periods within the moratorium. In Table 6, I don't know if the large negative impact on alcohol offenses are occurring evenly across the moratorium or primarily during the first 30 days. For policy implications, it would be incredibly valuable to understand when the reductions of alcohol offenses occur within the moratorium. This would inform both the optimal length of a moratorium and whether we would expect any benefit from a permanent ban on alcohol at these events.

I agree that this suggestion gives valuable information for school administrators to more effectively plan their moratorium length. I have added an additional section which describes the analysis to address this suggestion in Section 5.4:

Although moratoriums decrease alcohol offenses when implemented, it is within reason that these decreases are not uniform across the enforcement period. For instance, during a long moratorium, students may create alternatives to fraternity parties or overseers may become more lenient as time progresses. Therefore, it is important to understand both when and how long a moratorium is most effective, as this can better inform future moratorium length among school administrators.

To understand the progression of a moratorium's effectiveness, I split the $InMoratorium_{u,t}$ treatment variable into weekly bins for the first 9 weeks of a moratorium and pool the remaining weeks into one bin (Moratorium Weeks 10+) as shown in Panel A of Figures 8 and 9.³ This amounts to 10 unique coefficients, each identifying the effect of the moratorium in the corresponding week. However, since moratorium lengths differ by university, each point estimate is identified by a dynamic number of schools as shown in parenthesis on the x-axis. For example, the coefficient identifying the effect of a moratorium in Week 3 is identified by 33 universities that have a moratorium that reach the 3-week length. Note that if a university has, for instance, a 22-day moratorium, this moratorium will contribute only one day to the identification of the Moratorium Week 4 coefficient.

³Note that 9 weeks is approximately the average length of a moratorium.

Panel A of Figures 8 and 9, exhibit evidence that moratoriums are most effective in the first five weeks. In Panel A of Figure 8, alcohol offenses show statistically significant declines at the 5% level in weeks one, two, and five of a moratorium. The effectiveness appears to trend upward after the fifth week, thereby suggesting that moratorium effectiveness may diminish over time. Similarly, sexual assaults show statistically significant declines in weeks one and three in Panel A of Figure 9, while the effects appear to fade in later weeks.

Although Panel A shows the by-week effect, it is possible that the significant declines in the first five weeks are driven by universities that have short moratoriums. To ensure that the trends are consistent across universities, I re-estimate the coefficients with only universities that have moratoriums over 9 weeks long in Panel B of Figures 8 and 9. In each figure, Panel B shows similar trends to Panel A, although less precise due to the loss of power. This suggests that long moratoriums exhibit the strongest effects in the early weeks of implementation, and similarly, the effects diminish after the five weeks.

3.3 Major Comment 3: Update Table 7

To better interpret the results in Table 7, it would be helpful to know about the relative mean number of alcohol offenses at party schools versus non-party schools outside of a moratorium. It is possible for the reader to calculate this between the text in the second paragraph in section 6.1 and the information on Table 7, but it would be easier if it was provided. It would also highlight for the reader that party schools (as determined by the external rankings) do have more alcohol offenses per-25000 students than non-party schools.

Thank you for this comment as it will certainly help readers better understand the amount of alcohol offenses/sexual assaults at party schools relative to non-party schools outside of a moratorium. I have added an additional paragraph in Section 6.1 and have updated Table 7 with the non-moratorium means to help highlight the fact that party schools have more alcohol offenses per 25000 students than non-party schools. I have included the paragraph below for convenience:

As shown in Table 7, universities defined as party schools exhibit higher averages of alcohol offenses assaults relative to non-party schools. In particular, non-party

schools experience approximately 49% less alcohol offenses on average. These differences are similar when excluding moratorium days (47%), although both party schools and non-party schools have relatively similar levels of sexual assaults.

4 Response to comments from Referee #4

4.1 Major Suggestion 1: Leverage IFC Variation

Currently, the main specification treats all moratoriums the same. However, presumably a moratorium at a school with 1.3% of the body in IFC fraternities is less impacted by a moratorium than one with 10.2% IFC membership. Can you provide heterogeneity analysis that probes this difference in intensity of treatment? This could be accomplished by interacting moratorium with share IFC or looking at quartiles of share IFC etc.

Thank you for this thoughtful suggestion. Given that Referee #2 had the same suggestion, I copy my response in the following paragraphs for your convenience:

I have collected the additional data needed for this analysis as I was previously missing four universities' IFC population numbers. I append Section 6.1, "Do Party Schools Exhibit the Strongest Effects?" with a small discussion on this analysis:

Similarly, Appendix D explores whether universities that have relatively more *fraternity* life—defined by the fraction of undergraduate students enrolled in an IFC—display larger effects. By supplementing the preferred specification with an interaction between the $InMoratorium_{u,t}$ treatment variable and the fraction of undergraduates in an IFC fraternity, there is evidence that universities with more fraternity life show larger declines in alcohol offenses during moratoriums. Although statistically insignificant, the point estimates are negative, thereby hinting at the possibility that moratoriums are more effective when a higher fraction of students are directly affected by its guidelines.

As alluded to in the excerpt, I include a more thorough discussion of this exercise in the new Appendix D. This thorough discussion is omitted from the main paper due to the statistically insignificant results. I have copied text from the new Appendix D in what follows:

In this appendix, I analyze whether universities with a higher fraction of undergraduates belonging to IFC fraternities exhibit larger effects during a moratorium. Each university in the sample has a different share of their student population with IFC membership. Recall from Table 2 that the fraction of undergraduate students with IFC membership can range from 1% to as high as 11%. Presumably, a moratorium has a greater effect on student behavior when the restrictions apply to a greater share of students.

To conduct this analysis, I supplement the preferred specification with an interaction of $InMoratorium_{u,t}$ and $FractionIFC_u$, where $FractionIFC_u$ is the earliest recorded count of IFC fraternity members over 2014-2019 at university u , divided by the undergraduate enrollment, and centered at its mean. I use the earliest count of IFC members for two reasons; first, to avoid the potential issue of declines in IFC membership after a moratorium due to permanent suspensions of specific IFC chapters, and second, many universities do not maintain records of IFC numbers for every year in the sample period. However, in the universities that do supply complete records, I do not find substantial semester-to-semester changes in IFC populations.⁴ Therefore, an early one-year measure of the IFC population is a good approximation for the other corresponding years. In effect, the interaction of $InMoratorium_{u,t}$ and $FractionIFC_u$ creates a measure of moratorium intensity—universities with a higher fraction of IFC members receive a more intense treatment than universities with lower shares.

Table D1 reports evidence that moratoriums with a higher fraction of student enrollment belonging to an IFC fraternity exhibit larger decreases in alcohol offenses during a moratorium. In Column 1 of Panel A, the point estimate shows that a moratorium with a 10% higher share of IFC members results in a 0.023 decrease in the number of alcohol offenses per-25000 enrolled students. This effect is not statistically significant, although the effect is strongest on the weekends. Similarly, in Column 1 of Panel B, the point estimates for the interaction term show that moratoriums in universities with a higher share of IFC members exhibit larger decreases of sexual assaults. However, these decreases do not persist on weekends (Column 2) and none of the point estimates are statistically significant. Given the insignificance of the results, there is only evidence that the share of IFC members affects the impact of moratoriums.

4.2 Major Suggestion 2: Separating Effect of Triggering Event

One interesting result is that impacts of moratoriums seem larger following a student death (Figure 8). This begs the question of whether the incident (death) changes behavior for a short time, or whether the moratorium changes behavior. I would like to see whether

⁴West Virginia University is an exception to this. Their official IFC count decreased by over 60 percent in years following the moratorium.

a death without a moratorium causes a change in alcohol and sexual assault violations. Can you test this hypothesis by considering the 64 days (avg moratorium length) after these deaths as treated? Note – this suggestion is distinct from the test conducted in Appendix C7. I want to know whether a death causes a treatment effect absent a moratorium. Your test in C7 shows a related but separate idea—that moratoriums still cause a treatment effect when compared to colleges that have deaths but no moratoriums. Given that a large portion of the observations for a school with only a death would still be considered “untreated” (days prior to the event or days after the treatment period ended) even if it had a moratorium, the test in C7 may be a weak test, and I would encourage you to use more conservative language in describing the results.

This is a very thoughtful suggestion that certainly strengthens the paper. As requested, I estimate the main specification with the 15 universities that undergo a fraternity-related death but do not undergo a moratorium. I create a binary 64-day treatment variable that starts with the day of the death for each university. The results of this test are shown in Panel C of Appendix Figures E8 and E9. Ultimately, there does not appear to be evidence of a death-effect, and I further describe this analysis in the proceeding paragraphs.

Panel C of Appendix Figures E8 and E9 show that there is no statistically significant effect when considering a 64-day period after a fraternity-related death. In Panel C of Appendix Figure E8, alcohol offenses show small, and positive point estimates, while in Panel C of Appendix Figure E9, sexual assaults show negative point estimates when considering all days of the week and on the weekdays. This provides evidence that the moratorium is producing the effects shown in the main results, rather than the triggering event itself. While moratoriums that are the result of a fraternity related death drive the results as discussed in Section 6.2, this may be due to students more-seriously abiding by the moratorium guidelines.

Given the results and intuitive nature of this test, I believe that this analysis is better suited for the paper than the previous material I presented which utilized these 15 universities as never-treated control units. Therefore, I have omitted the old analysis in lieu of the new analysis shown in Appendix Figures E8 and E9. Moreover, Panel D of Appendix Figures E8 and E9 also show an extension of this analysis by including the never-treated groups discussed in Section 5.1. This inclusion of never-treated units is motivated by the relatively small number of clusters (15) in the initial analysis and is performed to increase precision. Although precision is minimally increased, the results remain consistent nonetheless.

Please note that Section 6.2 has now been updated to reflect the suggestions and subsequent analysis. What follows is the updated passage from Section 6.2, paragraph 2, which discusses this test and the results:

Figure 10 reports that the effect of moratoriums is more prominent when the corresponding trigger is a death or sexual assault rather than a behavior violation. In particular, alcohol offenses decline significantly when a fraternity-related death is the triggering event. To ensure that this is the result of the moratorium rather than the triggering death, I use an additional 15 universities that experienced a fraternity-related death in the sample period, but *did not* undergo a moratorium.⁵ Hence, these supplemental universities are those whose students experience the effect of a fraternity-related death, but do not experience a moratorium. First, I exclusively analyze these 15 non-moratorium universities by creating a 64-day binary treatment variable, beginning with the date of the death. A 64-day period is chosen as it is the average length of a moratorium. Next, I estimate the preferred specification using the 64-day period after the death in lieu of the $InMoratorium_{u,t}$ treatment variable. Panel C of Appendix Figures E8 and E9 show that there is little evidence of declines in alcohol offenses or sexual assaults following a fraternity-related death without a moratorium. The point estimates for alcohol offenses are consistently positive, while both offenses exhibit insignificant estimates at the 10% level. To increase precision, I supplement this analysis in Panel D of Appendix Figures E8 and E9 by adding the 14 never-treated schools that are used in Section 5.3 as never-treated controls for the effect of a death. As shown, the point estimates remain consistent across both of these analyses and the statistical significance does not change. Taken together, there is little evidence suggesting that a fraternity-related causes a decrease in alcohol or sexual assault offenses rather than the moratorium itself. Instead, this points to the possibility that students may more seriously abide by the moratorium guidelines when the triggering event is a death.

4.3 Major Suggestion 3: Representativeness

It would be helpful to place the sample in context relative to the Greek-life ecosystem to comment about generalizability. For instance, what is a typical share IFC across all 4-year US colleges and universities and how does this differ from the sample? Some small private colleges have very large Greek presence in percentage terms (e.g. Depauw University is ~70% Greek), but these schools are largely unrepresented in the sample.

⁵These universities were found using Hank Nuwer's repository of hazing-related deaths in the US: <https://www.hanknuwer.com/hazing-deaths/>.

Would we expect results to generalize etc.?

Unfortunately, there does not exist a data repository of IFC fraternity populations at the university level—the North American Interfraternity Conference (NIC) has informed me that they do not track such records. Moreover, the [US News Rankings of universities with the highest share of men in fraternities](#), has two major shortcomings: first, it only reports percentages for 100 universities in the US, many of which are small universities. Second, and most importantly, the US News Rankings does not specify whether their statistics are based on strictly IFC fraternities. Recall from Section 2.1 that there are other types of fraternities such as academic, professional, and service fraternities. Although the statistics that I have collected for universities that are in both the list and sample align (for instance, I find Rollins College has 23% of their undergraduate male population as a member of an IFC fraternity, and the list finds 22%), I would prefer to remain cautious about this source of data given its lack of clarity.⁶

However, I certainly agree that there is not enough context surrounding the sample universities and how they relate to other universities in terms of Fraternity/Sorority Life. To give context surrounding the importance of fraternities at the sample universities relative to other schools, I use the Best Greek Life Colleges in America ranking from Niche.com. These rankings are based on survey responses from Niche.com users on the quality of Fraternity/Sorority Life at their school and 300 universities nation-wide are ranked. Furthermore, this list is used in Section 5.1 of the paper as criteria for adding never-treated universities.

Figure E3 shows that the 37 universities in the sample are generally representative of schools with high-fraternity activity with the schools exhibiting a median ranking (represented by the dashed red line) of 64. In addition, 14 of the 37 universities (38%) are ranked in the top 50, while only 5 of 37 (13%) are not ranked. This figure has been added to the appendix as well as an additional sentence referring to the figure in Section 3.3 which reads, “Although IFC members represent a small number of enrolled students, the universities in the sample are representative of schools with active Fraternity and Sorority Life (see Appendix Figure E3)”.

⁶Please note that in the paper I report the fraction of undergraduate enrollment belonging to an IFC community rather than the fraction of undergraduate males which is why the maximum number I report in the summary statistics table is 11%.

4.4 Minor Suggestion 1: Condensing Sections 3.1 and 3.2

Sections 3.1 and 3.2 could be condensed with some of the material moved to the online appendix.

Thank you for this suggestion to add conciseness to the paper. As recommended, I have shortened Sections 3.1 and 3.2 by approximately 500 words and moved extraneous details to a newly created Appendix [A](#).

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6 Figures

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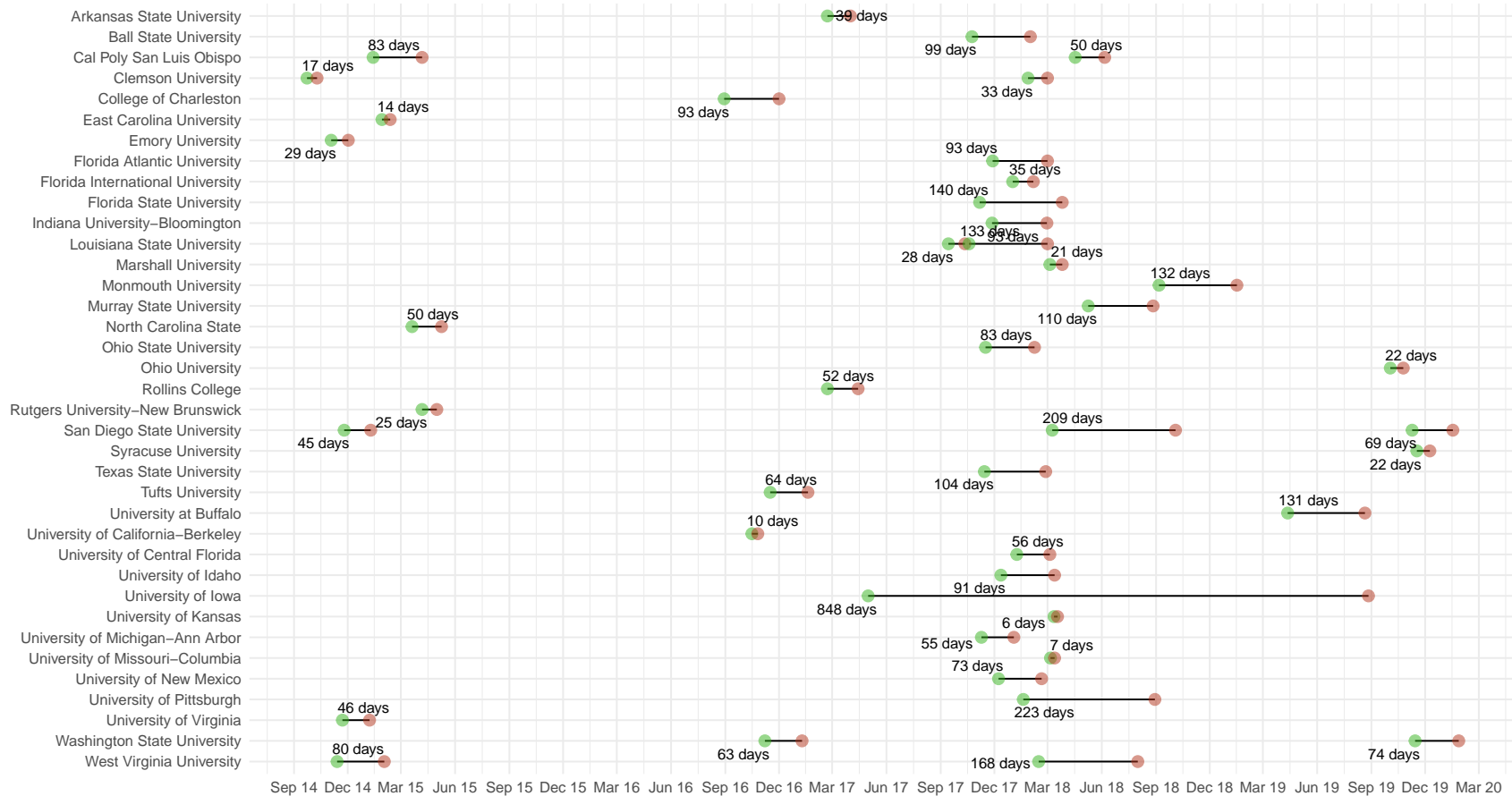


Figure 1: Distribution of Moratoriums Across the Sample Period for all Universities

Note: The sample period starts in 2014 and ends on the last day of 2019. The lengths of the moratoriums in this graph represent calendar-day lengths, not academic-calendar day lengths. Universities experience one to three moratoriums in the sample period.

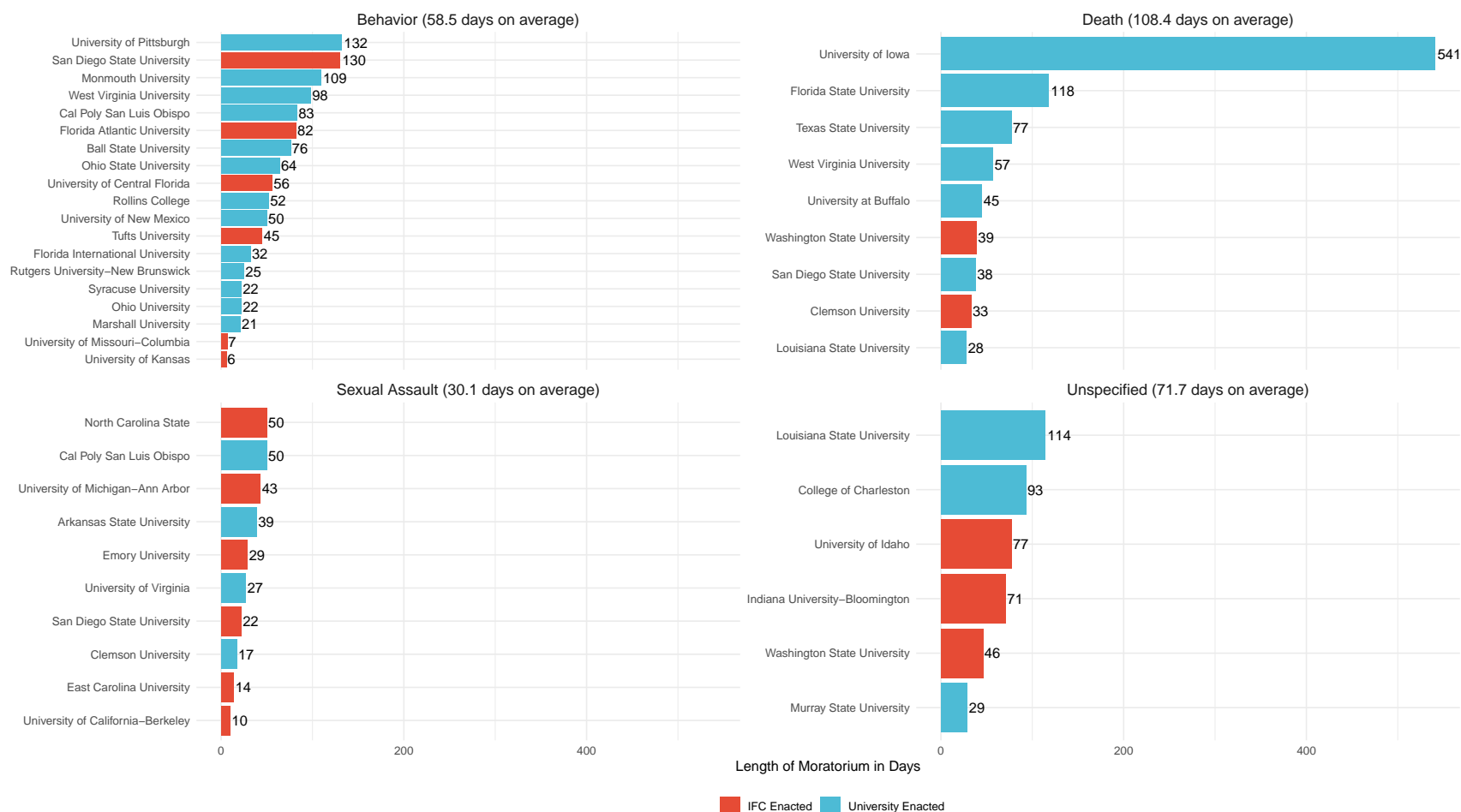


Figure 2: Number of Academic Calendar Days in Each Moratorium by Triggering Event

Note: Lengths of moratoriums represent academic calendar days. Therefore, the lengths of moratoriums differ from Figure 1. Blue shaded regions represent a moratorium that was imposed by the university, while red shaded moratoriums represent moratoriums that were imposed by the IFC. Each of the four categories represents the event that triggered a moratorium. Behavior violations is a catchall term for hazing, rule violations, offensive behavior, and other disorderly conduct. Death relates to a fraternity-related death that triggered a moratorium. Sexual assaults relate to a sexual assault case that triggered a moratorium. Lastly, the Unspecified category represents all moratoriums in which the moratorium triggering event is unknown or unclearly defined.

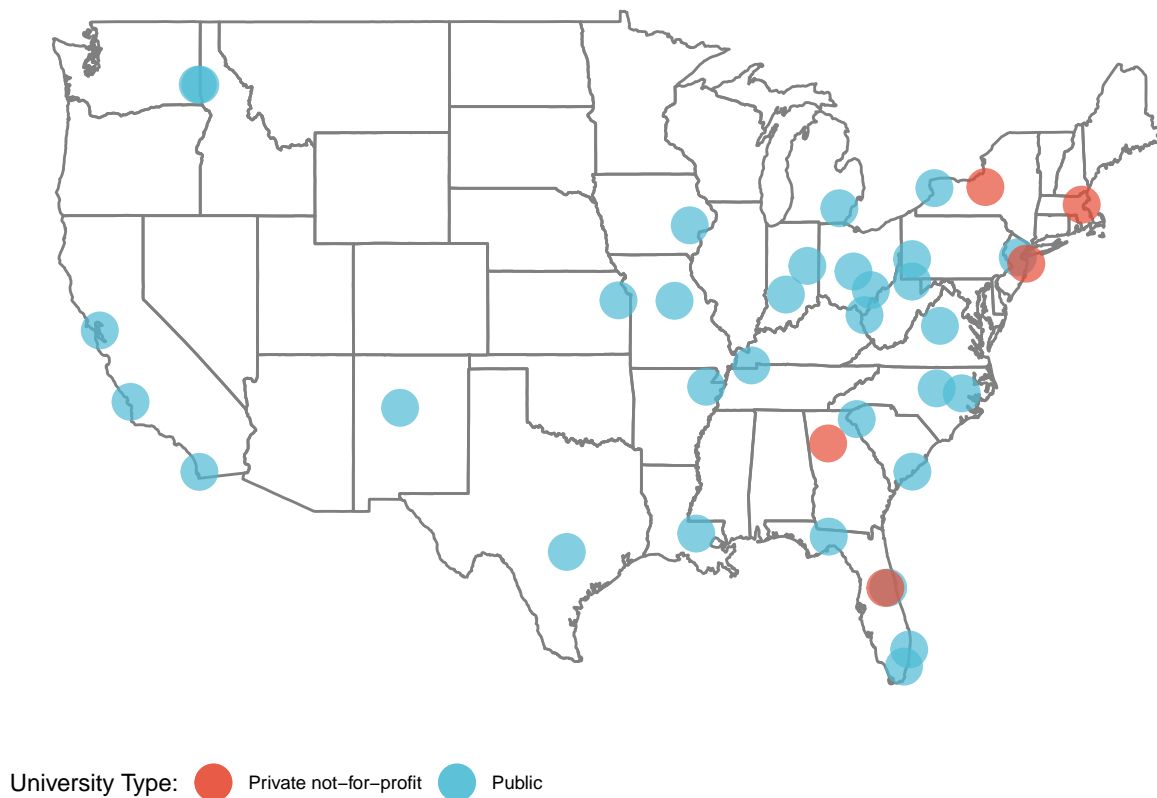


Figure 3: Locations of the Universities Included in the Sample

Note: There are a total of 37 universities in the sample, five of which are private universities. Data on both geographic location and private/public entity are obtained from the Integrated Postsecondary Education Data System (IPEDS).

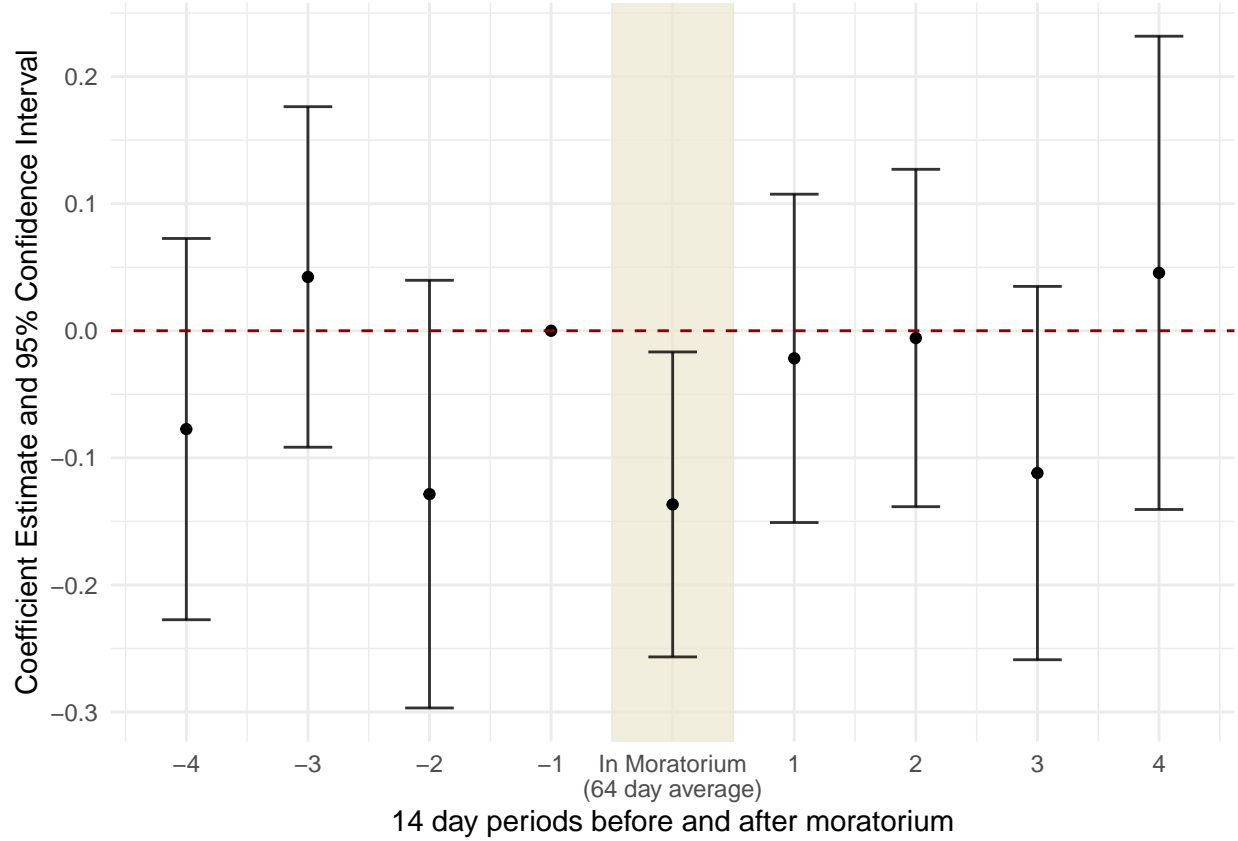


Figure 4: Event Study for Alcohol Offenses

Note: The shaded area point estimate represents an entire moratorium period for each university. Hence, the shaded area point estimate has varying amounts of days within based on the university. For instance, Arkansas State University had a 39-day moratorium and therefore their shaded area point estimate would be identified by the 39 moratorium days. Point estimates not within the shaded region are 14-day periods. Number of days within a period are chosen to give approximately a median-length (46 days) moratorium on each side of the shaded area. All periods are normalized by the 14-day period before the moratorium. Alcohol offenses are defined as alcohol offenses per-25000 enrolled students. Controls include holiday, spring semester, day of the week, football game-days, and university-by-academic-year. Standard errors clustered by university. All errorbars represent 95% confidence intervals. A joint-hypothesis F-test that each of the leading periods are zero shows that the p-value is 0.27 which is statistically insignificant.

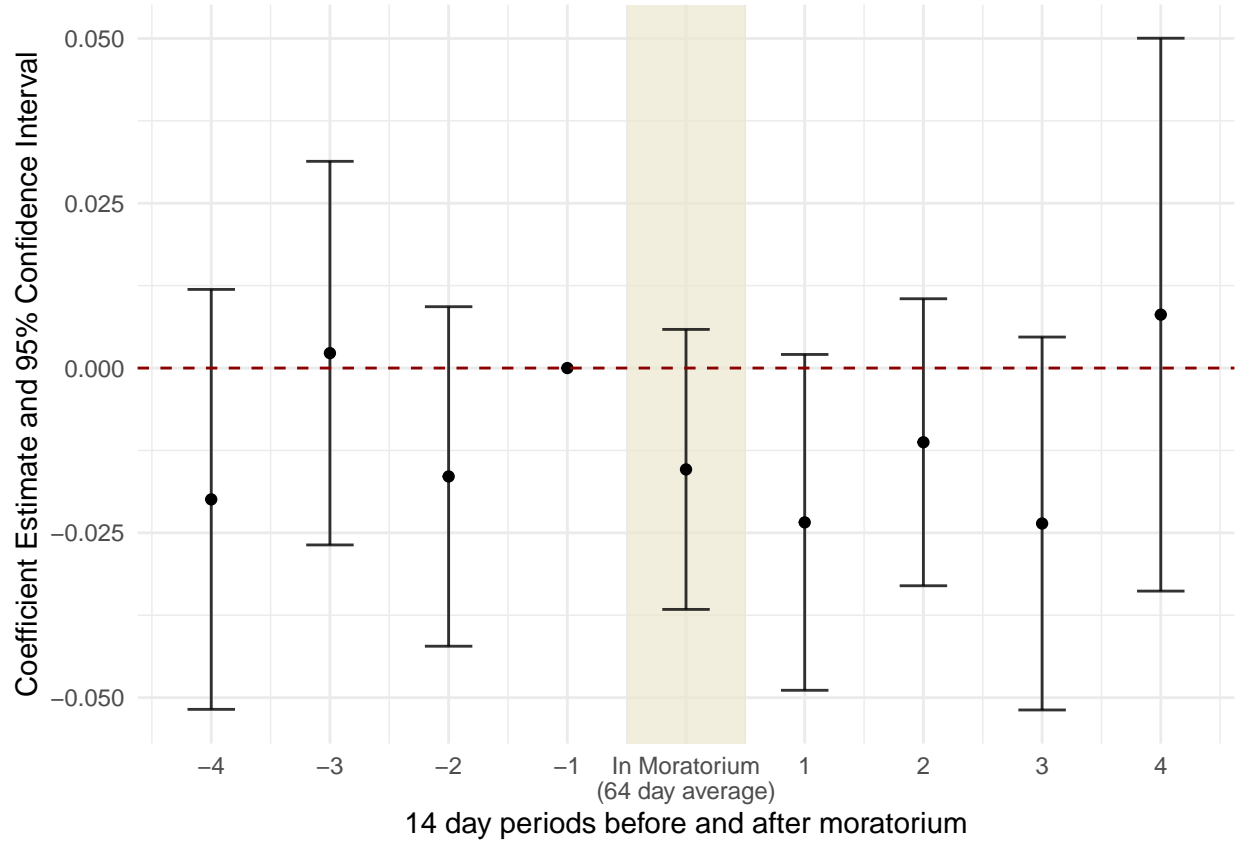


Figure 5: Event Study for Sexual Assault Offenses

Note: The shaded area point estimate represents an entire moratorium period for each university. Hence, the shaded area point estimate has varying amounts of days within based on the university. For instance, Arkansas State University had a 39-day moratorium and therefore their shaded area point estimate would be identified by the 39 moratorium days. Point estimates not within the shaded region are 14-day periods. Number of days within a period are chosen to give approximately a median-length (46 days) moratorium on each side of the shaded area. All periods are normalized by the 14-day period before the moratorium. Sexual assault offenses are defined as sexual assaults per-25000 enrolled students. Controls include holiday, spring semester, day of the week, football game-day, and university-by-academic-year. Standard errors clustered by university. All errorbars represent 95% confidence intervals. A joint-hypothesis F-test that each of the leading periods are zero shows that the p-value is 0.54 which is statistically insignificant.

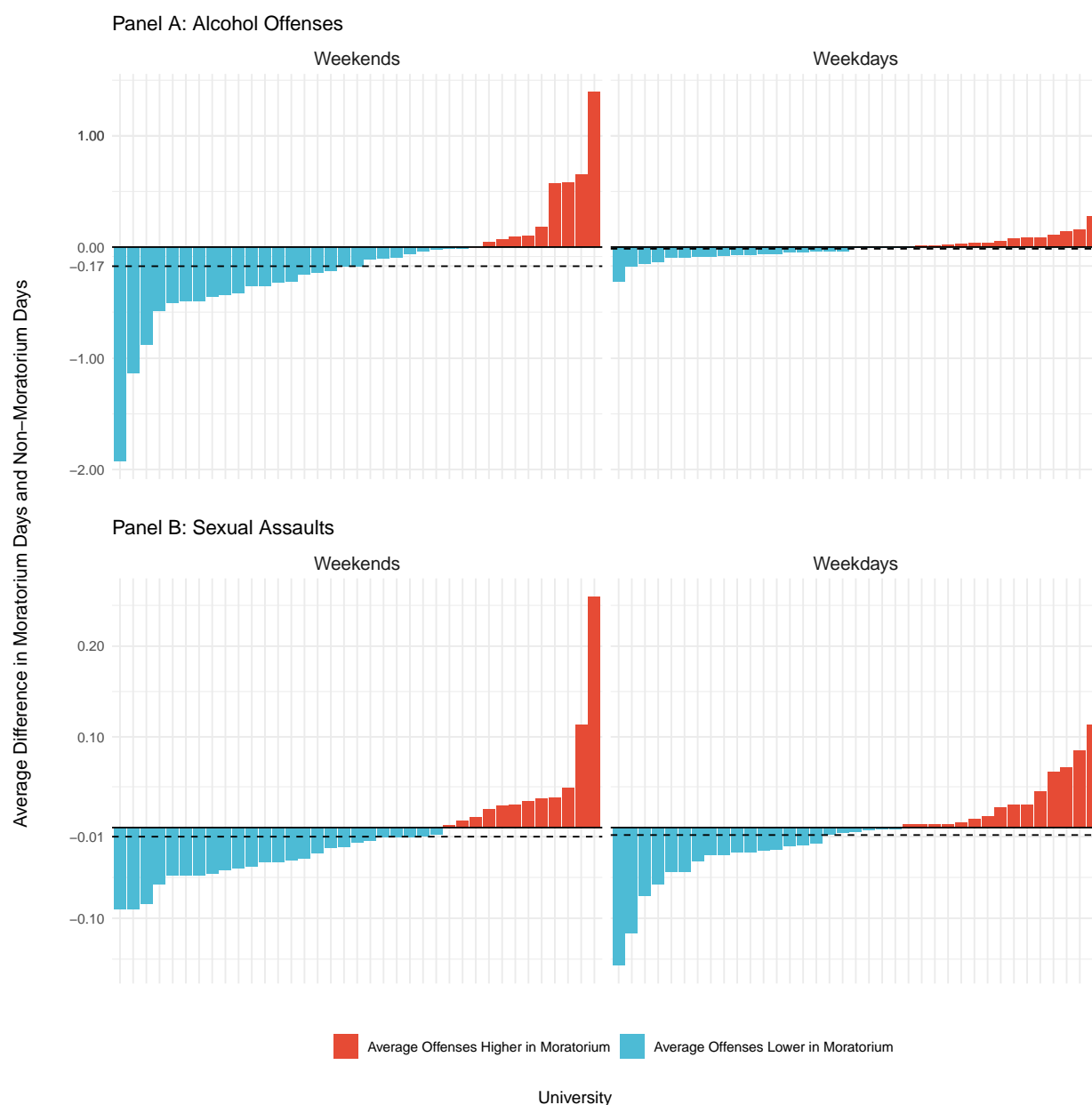


Figure 6: Difference in Average Offenses on Moratorium Days and Non-Moratorium Days
Note: The y-axis represents the average difference in offenses per-25000 enrolled students on moratorium days and non-moratorium days for each university. Negative y-axis values indicate that average offenses were lower on moratorium days than non-moratorium days. The x-axis denotes a unique university. The solid black line on the y-axis is 0, while the dashed black line denotes the average of the entire distribution.

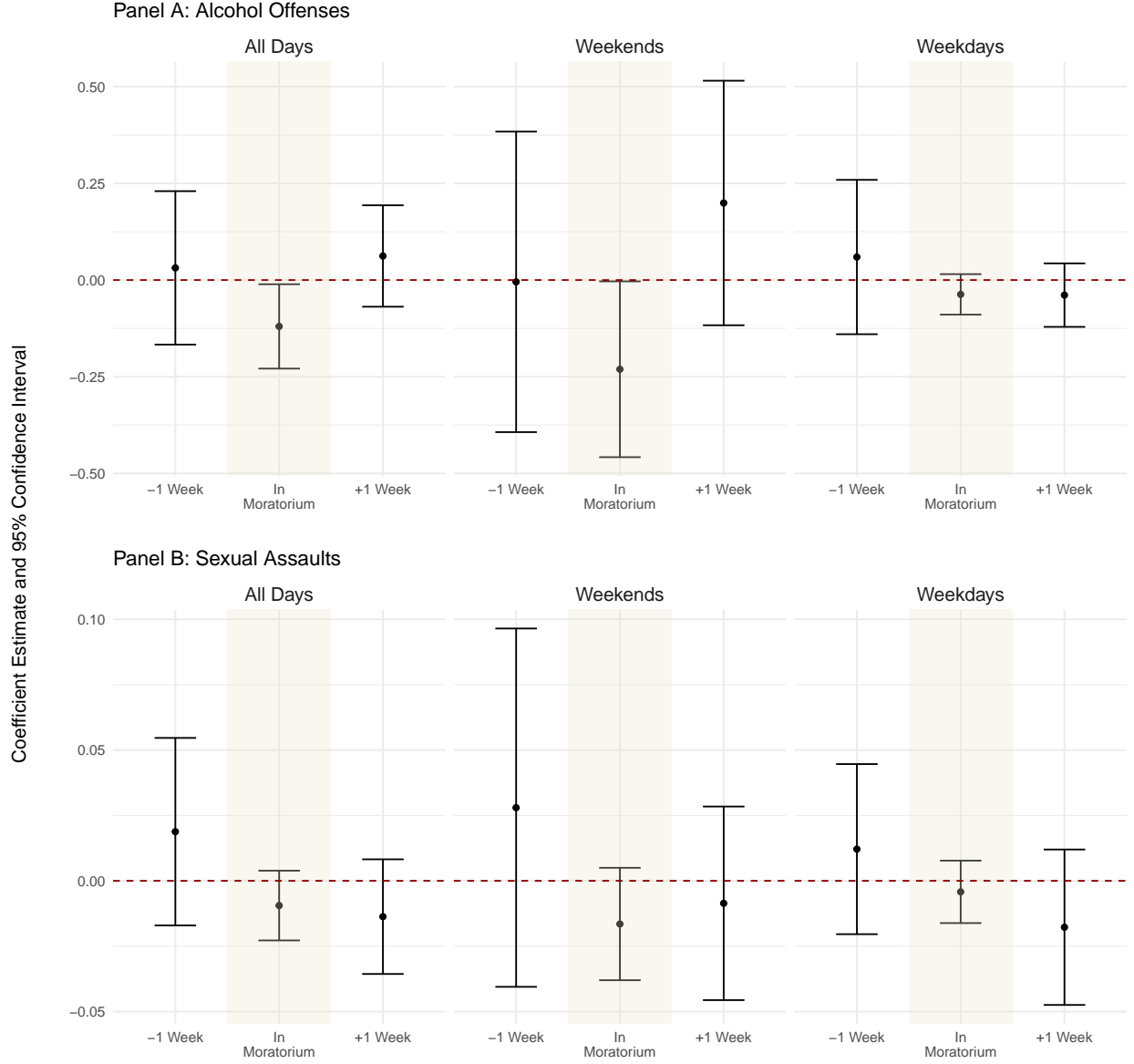


Figure 7: Coefficient Estimates Including a Week Before and Week After Indicator

Note: The x-axis represents three periods: the week before a moratorium, the moratorium itself, and the week after the moratorium. Indicators for week before and week after are added to specification (2) from Table 4. Controls include holiday, spring semester, day of the week, football game-days, and university-by-academic-year. Standard errors are clustered by university. Weekends represent Fridays, Saturdays, and Sundays. Weekdays represent Mondays-Thursdays. Errorbars represent 95% confidence intervals.

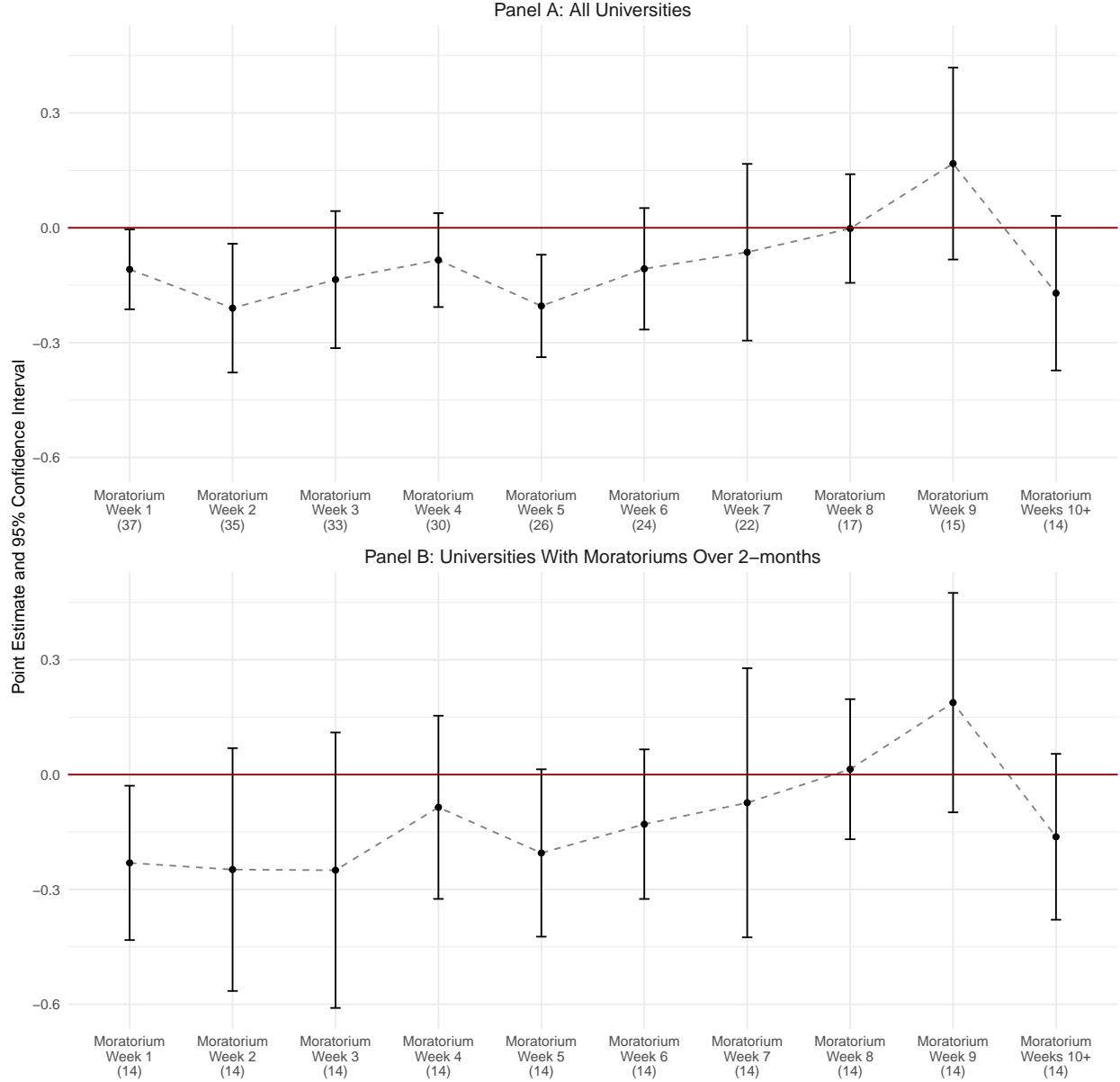


Figure 8: The Dynamics of a Moratorium (Alcohol Offenses)

Note: This figure shows how a moratorium progresses over time. Each point estimate represents a week within a moratorium, except Moratorium Weeks 10+, which pools moratoriums weeks 10 and above. The x-axis represents the week number the moratorium is currently in, while the parenthesis represents the number of universities that identify the point estimate. Recall that moratorium lengths differ across universities, and therefore some universities may not identify each weekly estimate. The y-axis represents the point estimates and 95% confidence intervals. Panel A estimates include all universities in the sample using the preferred specification, while Panel B estimates include only universities that have moratoriums over two-months long (approximately the average length of a moratorium). Standard errors are clustered by university, and controls include holiday, spring semester, day of the week, and university-by-academic-year.

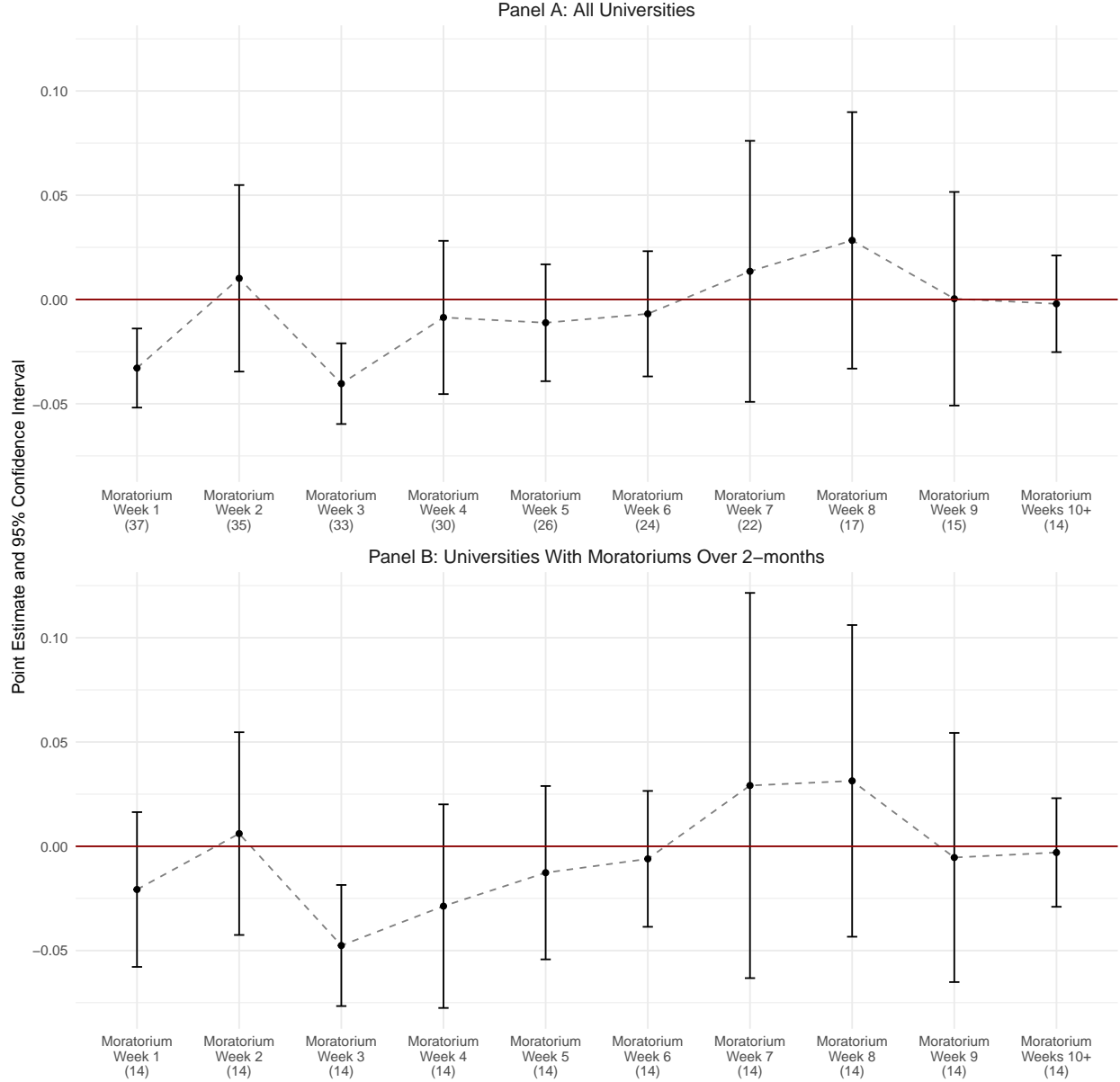


Figure 9: The Dynamics of a Moratorium (Sexual Assaults)

Note: This figure shows how a moratorium progresses over time. Each point estimate represents a week within a moratorium, except Moratorium Weeks 10+, which pools moratoriums weeks 10 and above. The x-axis represents the week number the moratorium is currently in, while the parenthesis represents the number of universities that identify the point estimate. Recall that moratorium lengths differ across universities, and therefore some universities may not identify each weekly estimate. The y-axis represents the point estimates and 95% confidence intervals. Panel A estimates include all universities in the sample using the preferred specification, while Panel B estimates include only universities that have moratoriums over two-months long (approximately the average length of a moratorium). Standard errors are clustered by university, and controls include holiday, spring semester, day of the week, and university-by-academic-year.

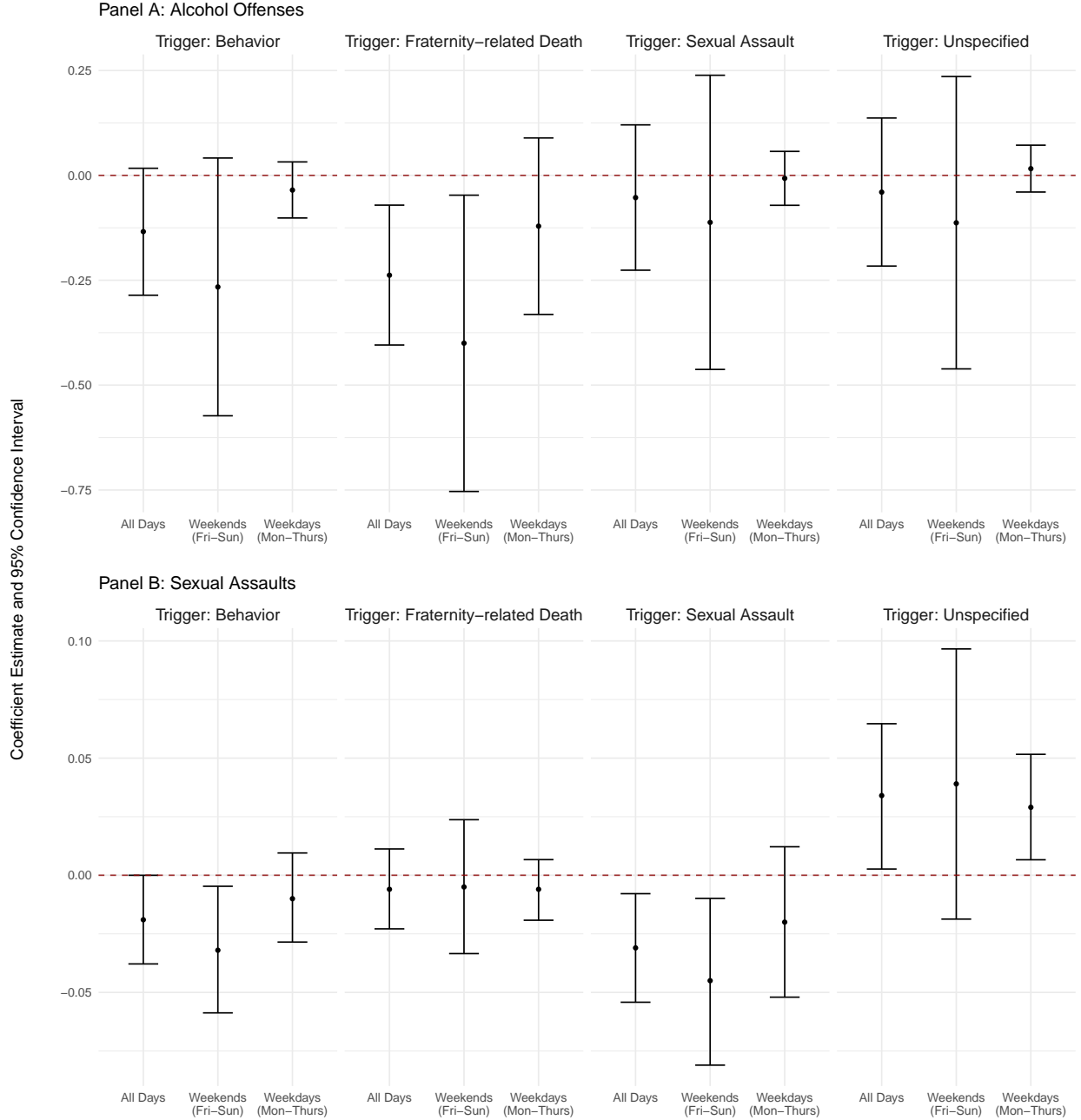


Figure 10: Heterogeneous Effects of Moratoriums by Triggering Event

Note: The x-axis represents three periods: the entire sample (All Days), weekends only, and weekdays only. Specification 2 (the preferred specification) from Table 4 is used in estimation. Each of the four categories represent the event that triggered a moratorium. A behavior violation refers to hazing, rule violations, offensive behavior, and other disorderly conduct. Death relates to a fraternity-related death that triggered a moratorium. Sexual assaults relate to a sexual assault case that triggered a moratorium. Lastly, the Unspecified category represents all moratoriums in which the moratorium triggering event is unknown or unclear. Errorbars represent 95% confidence intervals.

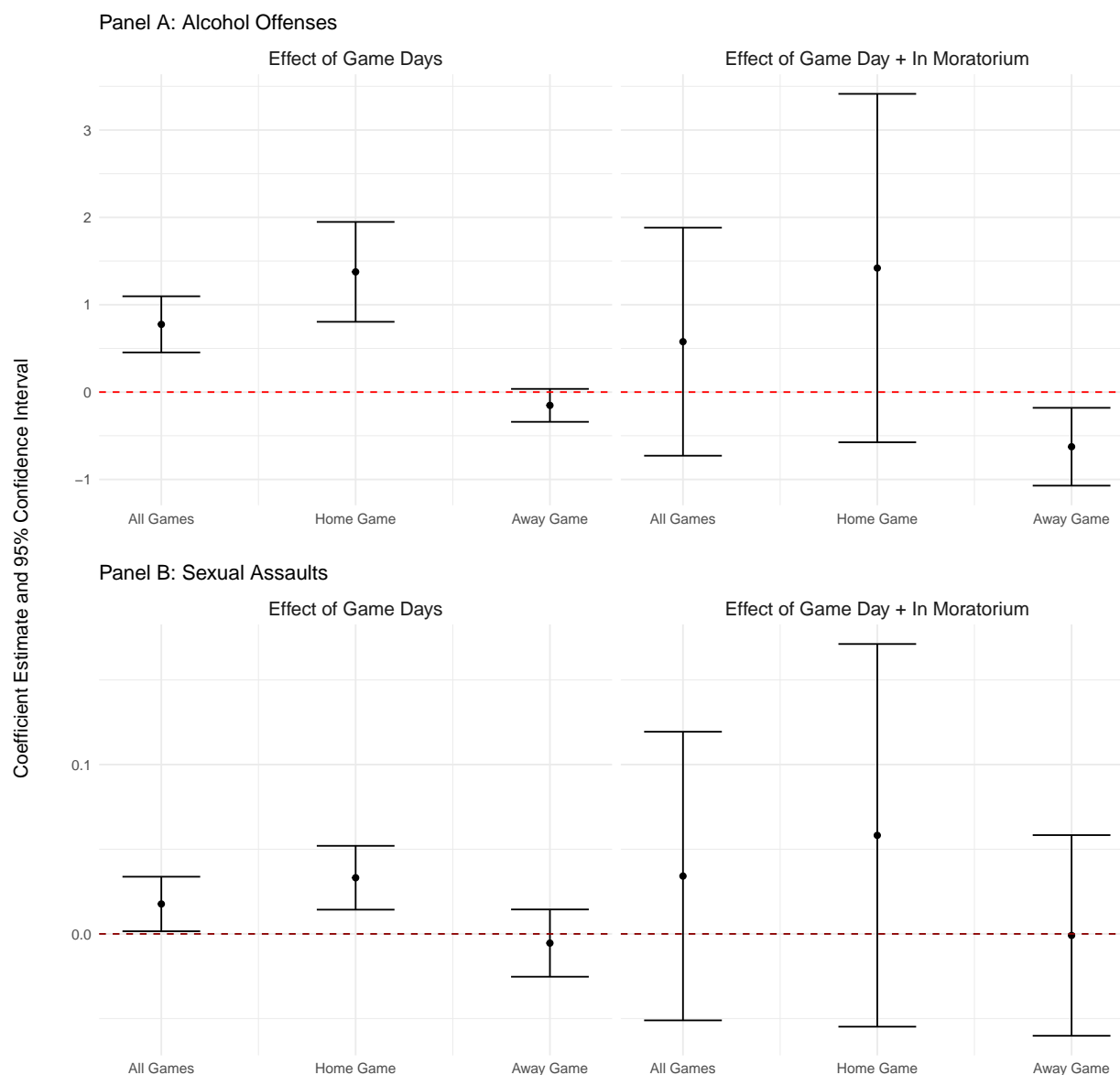


Figure 11: The Effect of Football Game-days and Football Game-days + Moratoriums
Note: Game days include all football games occurring in the sample period. 34 of the 37 universities have football teams and corresponding game days. The y-axis represents coefficient estimates. Errorbars represent 95% confidence intervals. Each panel is split into two effects: the first effect being the effect of only football game days on the outcome per-25000 enrolled students, and the second being the effect of a football game that occurs within a moratorium. The All Games category includes both home and away games. The effects of game days + moratorium is identified by 89 football games that coincide with moratoriums. Controls include holiday, spring semester, day of the week, and university-by-academic-year. Standard errors are clustered by university.

7 Tables

Table 1: Words and Phrases used to Pattern Match on Offenses of Interest

Outcome	Words to Match
Alcohol Offense	alcohol, dwi, intox, drink, dui, drunk, liquor, driving under the influence, dip, abcc, underage, dwi, underage, pula, owi, mip, under age, beer, wine, booze, minor in possession, ovi
Sexual Assault	sex, rape, fondling, fondle

Note:

The second column represents a portion of an incident’s description to pattern match on. Words for alcohol violations and sexual assaults are found by reading each university’s dataset for common words within incident descriptions. For example, the word ‘sex’ will match on ‘sexual assault’ and ‘sex offense’ since ‘sex’ appears in each of these descriptions. Notably, this method likely undercounts the true number of violations in each police department’s Daily Crime Log due to spelling errors. As a demonstration, the word ‘alcohol’ may be written as ‘aclohol’ which this matching process will not include. Some notable abbreviations include the following:

‘dwi’ is an abbreviation for ‘driving while intoxicated’.

‘dip’ is an abbreviation for ‘drunk in public’.

‘abcc’ is an abbreviation for ‘alcohol beverage control comission’.

‘pula’ is an abbreviation for ‘possession under legal age’.

‘owi’ is an abbreviation for ‘operating while intoxicated’.

‘mip’ is an abbreviation for ‘minor in possesion’.

‘ovi’ is an abbreviation for ‘operating vehicle intoxicated’.

Table 2: Summary Statistics of the Universities in the Sample

	Mean	SD	Median	Min	Max
Panel A: University Characteristics					
Total Enrollment	29,074	14,423	28,718	3,127	69,402
Total Undergraduate Enrollment	22,417	11,878	22,309	2,571	59,371
Fraction Asian	0.07	0.08	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	0.61	0.18	0.67	0.08	0.83
Graduation Rate	70.33	13.78	70.00	39.00	95.00
SAT Math 75th Percentile	655.79	69.11	650.00	480.00	790.00
SAT Reading 75th Percentile	641.26	54.25	640.00	490.00	760.00
Fraction Admitted	0.60	0.21	0.61	0.14	0.94
Fraction Private	0.13	0.34	0.00	0.00	1.00
Fraction IFC Fraternity ^a	0.052	0.025	0.049	0.011	0.113
Panel B: Daily Crime Log Offenses					
Alcohol Offense	0.46	1.23	0.00	0.00	31.68
Sexual Assault	0.05	0.30	0.00	0.00	15.99
Panel C: Moratorium Characteristics					
Number of Moratoriums per-University	1.36	0.61	1.00	1.00	3.00
Length of Moratoriums	64.07	80.90	45.50	6.00	541.00
<i>Total Number of Universities</i>	<i>37</i>				

Note:

Offenses are per-25000 students enrolled per-academic calendar day. Length of moratorium statistics are in academic-calendar days. Number of moratoriums refers to number of moratoriums only within the 2014-2019 time period. Some schools may or may not have had moratoriums in periods before or after the time period of analysis. Only a subset of races were chosen, and hence, the fractions do not sum to 1 in the table. SAT Math 75th Percentile and SAT Reading 75th Percentile correspond to the 75th percentile SAT score for an admitted student. A perfect score is 800, while an average score is approximately 500. Fraction Private refers to the fraction of universities that are private universities.

^a This is defined as the number of IFC members divided by the total undergraduate enrollment. However, in the case of four universities, counts had to be obtained from year 2022 due to lack of data availability within departments. Note that IFC fraternity populations do not change substantially year-to-year.

Table 3: Effect of Moratoriums on Changes in Reporting (OLS)

	Reporting Lag			
	More than 1-Day Lag (1)	More than 3-Day Lag (2)	More than 7-Day Lag (3)	More than 14-day Lag (4)
<i>Panel A: Proportion of Alcohol Offenses Reported with Lag</i>				
In Moratorium	0.002 (0.002)	0.000 (0.001)	0.000 (0.001)	0.000 (0.001)
Observations	48026	48026	48026	48026
Mean of Dependent Variable	0.003	0.002	0.001	0.001
<i>Panel B: Proportion of Sexual Assaults Reported with Lag</i>				
In Moratorium	-0.001 (0.004)	-0.003 (0.004)	-0.001 (0.004)	0.000 (0.003)
Observations	48026	48026	48026	48026
Mean of Dependent Variable	0.017	0.014	0.011	0.001

Note:

Standard errors are clustered by university. Panels A and B are OLS regressions of proportions of alcohol offenses and sexual assaults reported with a reporting lag. A reporting lag is defined as an offense that was reported more than one (Column 1), three (Column 2), seven (Column 3), or 14 (Column 4) days after it occurred. 32 of the 37 universities have information on date occurred. Specification is the preferred specification which includes day of week, holiday, football game-day, semester, and university-by-academic-year fixed effects. See Table 4 Column 2 for more details on the preferred specification.

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

Table 4: Effect of Moratoriums on Alcohol Offenses and Sexual Assaults (OLS)

	Specification (2)				
	(1)	(2)	(3)	Weekends (4)	Weekdays (5)
<i>Panel A: Alcohol Offenses</i>					
In Moratorium	-0.125** (0.047)	-0.123** (0.051)	-0.131*** (0.046)	-0.238** (0.106)	-0.038 (0.026)
Observations	55115	55115	55115	23643	31472
Mean of Dependent Variable	0.464	0.464	0.464	0.828	0.190
Wild Bootstrap P-Value	0.004	0.010	0.006	0.012	0.179
<i>Panel B: Sexual Assaults</i>					
In Moratorium	-0.009** (0.004)	-0.010 (0.006)	-0.007 (0.006)	-0.017* (0.010)	-0.004 (0.006)
Observations	55115	55115	55115	23643	31472
Mean of Dependent Variable	0.049	0.049	0.049	0.058	0.042
Wild Bootstrap P-Value	0.014	0.149	0.246	0.094	0.518
FE: Holiday	X	X	X	X	X
FE: Game Day	X	X	X	X	X
FE: Semester (Spring/Fall)	X	X		X	X
FE: University	X				
FE: Academic Year	X				
FE: University by Academic Year		X		X	X
FE: University by Academic Year by Semester			X		

Note:

Estimates are obtained using OLS. Standard errors shown in parenthesis are clustered by university (37 clusters) and each offense is defined as per-25000 enrolled students. P-values from 1000 wild cluster bootstrap iterations are shown for the In Moratorium coefficient as suggested by Cameron, Gelbach, and Miller (2008) in cases with a small number of clusters (typically lower than 30). This analysis is near, but not below this threshold. Game Day controls consist of university football games within each university. Weekends include Friday-Sunday while Weekdays include Monday-Thursday. Column 2 is the preferred specification due to the flexibility of the fixed effects and the conservativeness of the estimates. Significance stars correspond to clustered standard errors.

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

Table 5: Effect of Moratoriums in Local Police Departments Compared to University Police Departments (OLS)

	Nearby Police Departments			University Police Departments		
	All Days (1)	Weekends (2)	Weekdays (3)	All Days (4)	Weekends (5)	Weekdays (6)
<i>Panel A: Alcohol Offenses</i>						
In Moratorium	-0.156 (0.130)	-0.201 (0.206)	-0.126 (0.114)	-0.320* (0.141)	-0.714** (0.290)	-0.029 (0.040)
Observations	13764	5898	7866	13743	5889	7854
Mean of Dependent Variable	1.225	1.930	0.696	0.754	1.403	0.267
<i>Panel B: Sexual Assaults</i>						
In Moratorium	-0.025 (0.016)	-0.011 (0.017)	-0.035 (0.021)	-0.003 (0.017)	-0.013 (0.029)	0.004 (0.013)
Observations	13764	5898	7866	13743	5889	7854
Mean of Dependent Variable	0.478	0.522	0.446	0.055	0.071	0.043
FE: Day of Week	X	X	X	X	X	X
FE: Holiday	X	X	X	X	X	X
FE: Game Day	X	X	X	X	X	X
FE: Semester (Spring/Fall)	X	X	X	X	X	X
FE: Agency by Academic Year	X	X	X			
FE: University by Academic Year				X	X	X

Note:

The columns under Nearby Police Departments use the NIBRS data which pertains to police departments that are closest to the university. University Police Departments uses the Daily Crime Log data set which contains only university-specific police departments. Only 9 local police departments in the NIBRS data consistently report in the sample period. This table represents the comparison of alcohol offenses and sexual assaults per-25000 enrolled students at the nine local police departments and the corresponding nine universities. Standard errors are clustered by agency for NIBRS data and by university for Daily Crime Log data.

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

Table 6: Absence of Long-Run Effects of Moratoriums Split by Moratorium Length (OLS)

	Dependent Variable	
	Alcohol Offenses (1)	Sexual Assaults (2)
<i>Panel A: Full Sample</i>		
<i>Estimates from Figures 4 and 5</i>		
In Moratorium	-0.137** (0.059)	-0.015 (0.010)
Observations	55115	55115
F-test P-value of Lags	0.158	0.102
<i>Panel B: Quantiles by Moratorium Length</i>		
<i>Moratorium Length: 1st Quantile</i>		
In Moratorium	0.062 (0.036)	-0.015 (0.021)
Observations	22503	22503
F-test P-value of Lags	0.459	0.070
<i>Moratorium Length: 2nd Quantile</i>		
In Moratorium	-0.238** (0.097)	-0.021 (0.012)
Observations	19241	19241
F-test P-value of Lags	0.552	0.408
<i>Moratorium Length: 3rd Quantile</i>		
In Moratorium	-0.128 (0.087)	-0.007 (0.015)
Observations	22653	22653
F-test P-value of Lags	0.203	0.128

Note:

Point estimates of In Moratorium reflect the time 0 for the ‘multiple event’ event studies similar to Figures 4 and 5 with four leads and four lags of 14-day bins. Each offense is defined as per-25,000 enrolled students. Standard errors are clustered at the university level. All periods are normalized by the 14-day period before the moratorium. Panel A represents the same coefficient estimates as Figures 4 and 5, while Panels B, C, and D represent subsets of the sample split by three quantiles. The three quantiles represent the 33rd, 66th, and 100th percentile of a moratorium length which correspond to [0-32], [33-59], and [60-541] academic calendar days of a moratorium respectively. Hence, if a university has a moratorium that lasts 30 academic calendar days, then it is included in Panel A. P-values are reported from joint F-test of the four lags. Fixed effects include day of the week, holiday, semester number, football game-day, and university-by-academic-year.

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

Table 7: Effect of Moratoriums on Alcohol Offenses and Sexual Assault by Party School (OLS)

	School Type		
	All Schools (1)	Party Schools (2)	Non-Party Schools (3)
<i>Panel A: Alcohol Offenses</i>			
In Moratorium	-0.123** (0.051)	-0.223** (0.101)	-0.053 (0.034)
Observations	55115	23980	31135
Mean of Dependent Variable	0.464	0.658	0.314
Non-Moratorium Mean	0.461	0.661	0.312
<i>Panel B: Sexual Assaults</i>			
In Moratorium	-0.010 (0.006)	-0.008 (0.007)	-0.011 (0.010)
Observations	55115	23980	31135
Mean of Dependent Variable	0.049	0.045	0.052
Non-Moratorium Mean	0.049	0.045	0.052

Note:

Standard errors are clustered by university and each offense is defined as per-25000 enrolled students. The column All Schools represents the preferred specification (i.e. Column 2) from the main results table which includes day of the week, football game-day, semester number, and university-by-academic-year fixed effects. A party school classification is determined from Niche.com's list of top partying schools. A university in the top 50 is considered a party school which amounts to 16 of the 37 universities.

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

Table 8: The Effect of Moratoriums Interacted with IFC Share

	All Days	Weekends	Weekdays
	(1)	(2)	(3)
<i>Panel A: Alcohol Offenses</i>			
In Moratorium	-0.120** (0.048)	-0.230** (0.098)	-0.037 (0.026)
In Moratorium x Fraction IFC	1.696 (2.455)	2.898 (5.199)	0.515 (0.774)
Mean of Dependent Variable	0.464	0.828	0.190
Observations	55115	23643	31472
<i>Panel B: Sexual Assaults</i>			
In Moratorium	-0.010 (0.007)	-0.018* (0.010)	-0.004 (0.006)
In Moratorium x Fraction IFC	-0.205 (0.298)	-0.207 (0.395)	-0.200 (0.286)
Mean of Dependent Variable	0.049	0.058	0.042
Observations	55115	23643	31472
FE: Day of Week	X	X	X
FE: Holiday	X	X	X
FE: Game Day	X	X	X
FE: Semester (Spring/Fall)	X	X	X
FE: University by Academic Year	X	X	X

Note:

Fraction IFC is the most recent number of IFC members at a university divided by the average total enrollment over 2014-2019, centered at the mean. Note that not every university keeps record of their IFC numbers over time, and therefore, the most recent number of IFC members was used in this calculation. However, based on the few universities that provided year-to-year data on their IFC populations, the total number does not substantially change over time. Standard errors shown in parenthesis are clustered by university (37 clusters) and each offense is defined as per-25000 enrolled students. The interaction of In Moratorium and Fraction IFC gives a measure of moratorium intensity based on the fraction of IFC members.

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

Table 9: Effect of Moratoriums Imposed by the University vs. the IFC (OLS)

	Days of the Week		
	All Days (1)	Weekends (2)	Weekdays (3)
<i>Panel A: University-Enacted Moratoriums</i>			
<i>Alcohol Offense</i>			
In Moratorium	-0.132* (0.065)	-0.252* (0.136)	-0.041 (0.035)
Observations	55115	23643	31472
<i>Sexual Assault</i>			
In Moratorium	-0.010 (0.008)	-0.019 (0.013)	-0.003 (0.007)
Observations	55115	23643	31472
<i>Panel B: IFC-Enacted Moratoriums</i>			
<i>Alcohol Offense</i>			
In Moratorium	-0.101 (0.082)	-0.197 (0.166)	-0.030 (0.026)
Observations	55115	23643	31472
<i>Sexual Assault</i>			
In Moratorium	-0.010 (0.010)	-0.014 (0.010)	-0.007 (0.012)
Observations	55115	23643	31472

Note:

Standard errors clustered by university. In Panel A, the In Moratorium is interacted with an indicator variable equal to one if the moratorium was enacted by a university. In Panel B, In Moratorium is interacted with an indicator variable equal to one if the moratorium was enacted by the IFC. Controls follow the preferred specification (i.e., Column 2 in the main results table with day of week, holiday, semester, football game-day, and university by academic year fixed effects. Panel A shows the effects of a moratorium when a moratorium is imposed by the university. University-imposed moratoriums represent 27/44 (61%) of the moratoriums. Panel B shows the effects of a moratorium when the IFC council imposes the moratorium. This is a student-lead initiative. IFC-imposed moratoriums represent 17/44 (39%) of the moratoriums in the sample. Weekends represent Fridays through Sundays while Weekdays represent Mondays through Thursdays.

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

Appendix

A Details on Data Collection

In this appendix, I cover minute details of the data collection. First, a list of universities that underwent moratoriums but are not included in the sample are explained. Second, the small portion of missing data in the Daily Crime Logs is discussed.

A.1 Sample Selection Details

Recall from Section ?? that the main sample includes 37 universities which experienced moratoriums between 2014 and 2019. However, these do not represent the universe of fraternity moratoriums that occur in this time period. In particular, there are six schools that are known to have experienced a moratorium in this time frame, but are excluded due to data issues or their definition of a moratorium. First, Miami University is excluded since the end-date of their moratorium could not be verified. Second, Pennsylvania State University is excluded because they did not digitally release their Daily Crime Logs. Third, the University of Texas at Arlington is excluded because the crime logs are scanned images that cannot be read reliably by any computer software. Fourth, Cal State Northridge is excluded because it is unclear whether the moratorium includes a ban on alcohol. Fifth, the University of North Florida is excluded because of a discrepancy between public records information and newspaper articles—newspaper articles claim there is a moratorium beginning 12/4/17, but the public records department claims this is untrue. Last, the University of Vermont is excluded due to issues with the reliability of the data—crimes often are reported to have occurred in large intervals of days (or months) for nearly 40% of the data provided which is not suitable for the daily-level analysis in this paper. There may exist other universities that experienced a moratorium without news coverage—these are also excluded from the sample.

A.2 Daily Crime Log Details

As outlined in Section ??, the Daily Crime Logs are mandated under the Clery Act to include a set of characteristics for each crime and to be maintained for seven years. Despite these mandates, there are exceptions to each of these. First, while the date occurred is mandated to be included in the Daily Crime Logs, only 32 of the 37 universities' crime logs contain the date occurred. However, these five schools contain the date reported, and therefore, I use the date reported in lieu of the date occurred when the date occurred is missing. Second, the seven-year record mandate is not interpreted uniformly across universities. In

particular, if Daily Crime Logs from 2014 are requested in year 2021, the police departments of Rollins College and North Carolina State University consider seven-years to be inclusive of their current year, and hence, only retain records from 2015-2021 or have only partially completed records in 2014 respectively.

B Robustness Under TWFE

In this appendix, I estimate a model that contains no negative weights to acknowledge the potential issues with the difference-in-differences estimator as discussed in Section ???. These weights are calculated using the TwoWayFEWeights package ([Chaisemartin, D’Haultfoeuille, and Deeb 2020](#)). The estimated model is the following TWFE specification:

$$Y_{ut} = \beta Moratorium_{ut} + \gamma_u + \alpha_t + \epsilon_{ut}$$

where Y_{ut} is the outcome for university u at time t measured by per-25000 enrolled students per academic-calendar day, $Moratorium_{ut}$ is an indicator equal to one if university u is in a moratorium at time t , γ_u are university fixed effects, α_t are day by month by year fixed effects, and ϵ_{ut} is the error term. Hence, this model compares academic-calendar days within a moratorium to the same calendar days without a moratorium while controlling for systematic differences between universities. As mentioned above, there are no negative weights in this specification and therefore sign reversal is impossible. With this advantage, I re-estimate the results in Columns 2, 3, and 5 in Table 4.

Table B1 shows that the results of the TWFE specification with no negative weights are mostly consistent with the results in Table 4. In Panel A, alcohol offenses exhibit a 19% decrease from the mean during a moratorium, with a 25% decrease on the weekends. Although sexual assaults do not exhibit statistically significant decreases on the weekends, this is potentially due to the loss of identifying variation from the data-intensive controls. However, it is important to note that the coefficient sign remains the same on all of the estimates. Hence, under the identifying assumptions of the model, moratoriums decrease alcohol offenses.

Table B1: Effect of Moratoriums on Alcohol Offenses and Sexual Assault by Weekend/Weekdays (No Negative Weights-OLS)

	Days of the Week		
	All Days (1)	Weekends (2)	Weekdays (3)
<i>Panel A: Alcohol Offenses</i>			
In Moratorium	-0.091* (0.045)	-0.211** (0.097)	-0.004 (0.017)
Observations	55115	23643	31472
Mean of Dependent Variable	0.464	0.828	0.190
<i>Panel B: Sexual Assaults</i>			
In Moratorium	-0.006 (0.005)	-0.008 (0.007)	-0.004 (0.007)
Observations	55115	23643	31472
Mean of Dependent Variable	0.049	0.058	0.042
FE: University	X	X	X
FE: Day by Month by Year	X	X	X

Note:

Standard errors are clustered by university and each offense is defined as per-25000 enrolled students. Column 1 represents the preferred specification from the main results table, Column 2. Weekends consist of Fridays, Saturdays, and Sundays. Weekdays consist of Monday through Thursday. The specification used in this table has no negative weights and thus, sign reversal is impossible.

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

C Spillover Analysis Using CSS Data

In this appendix, I use the Campus Safety and Security (CSS) data to indirectly analyze whether alcohol offenses and sexual assaults are being displaced to riskier areas during a moratorium. I compare the yearly aggregation of the Daily Crime Logs to the CSS data using a model that is less suited for a causal analysis due to the yearly aggregation of the CSS data. Therefore, the estimates in this appendix should be taken as speculative only.

C.1 CSS Data and Empirical Strategy

The CSS data is maintained by the US Department of Education. This data is mandated by the federal government to be updated each calendar year with the yearly totals of liquor law disciplinary actions and arrests, and sexual assault violations that are reported *to any entity* at a university. Hence, this data will not match one-to-one with the Daily Crime Logs as the Daily Crime Logs contain only incidents *reported to or by the university police*. For instance, if a residence hall administrator issues a liquor violation to an underage student, but handles the issue internally without involving the police, then this would be included in the CSS data as a liquor law disciplinary action, but not the Daily Crime Logs. However, the advantage of the CSS data is that it contains counts of offenses that occur on-campus, not-on-campus, and on public property.⁷ Most importantly, I am able to delineate whether incidents occur in student residence halls.

Since the CSS data is aggregated by calendar-year, the CSS data is not a preferred data source for causal analysis. In spite of this shortcoming, I estimate the following difference-in-differences specification:

$$Y_{u,t} = \beta Moratorium_{u,t} + \gamma_u + \lambda_t + \epsilon_{u,t} \quad (C0)$$

where $Y_{u,t}$ is the offense of interest defined as per-25000 enrolled students per-calendar-year, $Moratorium_{u,t}$ is the *number* of calendar-days with a moratorium within a year, γ_u are university fixed effects, λ_t are calendar-year fixed effects, and $\epsilon_{u,t}$ is the error term. Standard errors are clustered at the university level to account for serial correlation within universities.

⁷Not-on-campus is defined by the Department of Education as “(1) 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.” Furthermore, public property is defined as “All public property, including thoroughfares, streets, sidewalks, and parking facilities, that is within the campus, or immediately adjacent to and accessible from the campus.”

C.2 Results

Table C1 shows the comparison of estimating Equation C0 with the Daily Crime Logs aggregated to the calendar-year level with the CSS data.⁸ The Daily Crime Logs show relatively consistent results with those found in Table 4; yearly averages of alcohol offenses per-25,000 enrolled students decrease by approximately 0.134 per additional calendar day with a moratorium and sexual assaults decrease by approximately 0.013.

Although the results using aggregated Daily Crime Logs are consistent with the findings in Table 4, the CSS data shows that residence halls experience a 0.270 *increase* in yearly liquor law disciplinary violations per-25,000 enrolled students and a 0.033 *decrease* in reports of sexual assault for each additional calendar-year-day with a moratorium (Column 3). Each of these estimates are significant at the 5% level. However, there is little evidence of an effect on liquor law arrests as shown in Columns 4 and 5—consistent with the literature that campus police do not typically arrest students for alcohol violations (Bernat et al. 2014). As discussed in Section ??, this supports the notion that if moratoriums displace alcohol-fueled behavior, they displace it to *less* risky areas whereby behavior can more easily be intervened before it becomes dangerous.

⁸This aggregation includes all calendar-year days rather than only academic-calendar days that were used in the main analysis.

Table C1: Effect of Moratoriums on Alcohol Offenses and Sexual Assaults: Comparison of Daily Crime Logs and Campus Safety and Security (OLS)

	Daily Crime Logs	Campus Safety and Security			
		Disciplinary Actions/Reported Crime		Arrests	
	All Reports	All Reports	Residence Halls	All Reports	Residence Halls
	(1)	(2)	(3)	(4)	(5)
<i>Panel A: Alcohol Offenses</i>					
In Moratorium	-0.134*	0.297**	0.270**	-0.022	-0.025
	(0.077)	(0.118)	(0.125)	(0.056)	(0.040)
Mean of Dependent Variable	131.861	362.978	343.616	55.961	24.280
Observations	220	222	222	222	222
FE: Year	X	X	X	X	X
FE: University	X	X	X	X	X
<i>Panel B: Sexual Assaults</i>					
In Moratorium	-0.013	-0.046	-0.033**		
	(0.011)	(0.039)	(0.014)		
Mean of Dependent Variable	14.099	28.732	14.444		
Observations	220	222	222		
FE: Year	X	X	X		
FE: University	X	X	X		

Note:

Standard errors are clustered by university and each offense is defined as offense per-25000 enrolled students per-calendar year. Recall that Daily Crime Logs are the primary source of data used in prior analysis. In this model, the In Moratorium treatment variable is defined as the number of calendar-days that experienced a moratorium in a calendar-year. All Reports columns include the entire Daily Crime Logs/Campus Safety and Security Data (CSS), while Residence Halls is a subset of the CSS. All Reports in the CSS data contains both off-campus and on-campus reports. CSS data does not necessarily need to be reported to the university police and hence, may not show up in the Daily Crime Logs. Columns 2 and 3 refer to disciplinary actions for liquor law violations and reported crime for sexual assaults. Columns 4 and 5 refer to arrests for liquor law violations. Fixed effects include university and year fixed effects.

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

D Is the Share of Students in a Fraternity Important for Effectiveness?

In this appendix, I analyze whether universities with a higher fraction of undergraduates belonging to IFC fraternities exhibit larger effects during a moratorium. Each university in the sample has a different share of their student population with IFC membership. Recall from Table 2 that the fraction of undergraduate students with IFC membership can range from 1% to as high as 11%. Presumably, a moratorium has a greater effect on student behavior when the restrictions apply to a greater share of students.

To conduct this analysis, I supplement the preferred specification with an interaction of $InMoratorium_{u,t}$ and $FractionIFC_u$, where $FractionIFC_u$ is the earliest recorded count of IFC fraternity members over 2014-2019 at university u , divided by the undergraduate enrollment, and centered at its mean. I use the earliest count of IFC members for two reasons; first, to avoid the potential issue of declines in IFC membership after a moratorium due to permanent suspensions of specific IFC chapters, and second, many universities do not maintain records of IFC numbers for every year in the sample period. However, in the universities that do supply complete records, I do not find substantial semester-to-semester changes in IFC populations.⁹ Therefore, an early one-year measure of the IFC population is a good approximation for the other corresponding years. In effect, the interaction of $InMoratorium_{u,t}$ and $FractionIFC_u$ creates a measure of moratorium intensity—universities with a higher fraction of IFC members receive a more intense treatment than universities with lower shares.

Table D1 reports evidence that moratoriums with a higher fraction of student enrollment belonging to an IFC fraternity exhibit larger decreases in alcohol offenses during a moratorium. In Column 1 of Panel A, the point estimate shows that a moratorium with a 10% higher share of IFC members results in a 0.023 decrease in the number of alcohol offenses per-25000 enrolled students. This effect is not statistically significant, although the effect is strongest on the weekends. Similarly, in Column 1 of Panel B, the point estimates for the interaction term show that moratoriums in universities with a higher share of IFC members exhibit larger decreases of sexual assaults. However, these decreases do not persist on weekends (Column 2) and none of the point estimates are statistically significant. Given the insignificance of the results, there is only evidence that the share of IFC members affects the impact of moratoriums.

⁹West Virginia University is an exception to this. Their official IFC count decreased by over 60 percent in years following the moratorium.

Table D1: The Effect of Moratoriums Interacted with IFC Share

	All Days	Weekends	Weekdays
	(1)	(2)	(3)
<i>Panel A: Alcohol Offenses</i>			
In Moratorium	-0.124** (0.051)	-0.239** (0.107)	-0.038 (0.026)
In Moratorium x Fraction IFC	-0.231 (1.402)	-0.729 (2.629)	-0.209 (0.733)
Mean of Dependent Variable	0.464	0.828	0.190
Observations	55115	23643	31472
<i>Panel B: Sexual Assaults</i>			
In Moratorium	-0.010 (0.007)	-0.017 (0.010)	-0.004 (0.006)
In Moratorium x Fraction IFC	-0.068 (0.235)	0.164 (0.304)	-0.242 (0.234)
Mean of Dependent Variable	0.049	0.058	0.042
Observations	55115	23643	31472
FE: Day of Week	X	X	X
FE: Holiday	X	X	X
FE: Game Day	X	X	X
FE: Semester (Spring/Fall)	X	X	X
FE: University by Academic Year	X	X	X

Note:

Fraction IFC is the average share of undergraduates that are in an IFC fraternity, centered at the mean. Note that not every university keeps record of their IFC numbers over time, and therefore, the most recent number of IFC members is used in this calculation when sample-period data is missing. However, based on the few universities that provided year-to-year data on their IFC populations, the total number does not substantially change over time. Standard errors shown in parenthesis are clustered by university (37 clusters) and each offense is defined as per-25000 enrolled students. The interaction of In Moratorium and Fraction IFC gives a measure of moratorium intensity based on the fraction of IFC members. The regression specification is the preferred specification which includes day of week, holiday, football game-day, semester, and university-by-academic-year fixed effects.

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

E Appendix Figures and Tables

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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.		
Print Date and Time 1/21/2014 12:23:52PM at Page No. 1		

Figure E1: An Example of a Daily Crime Log

Note: The main analysis uses data from 37 universities' Daily Crime Logs—each unique in their own respect. All Daily Crime Logs are collected from each university and harmonized using the pattern matching technique outlined in Section 3.

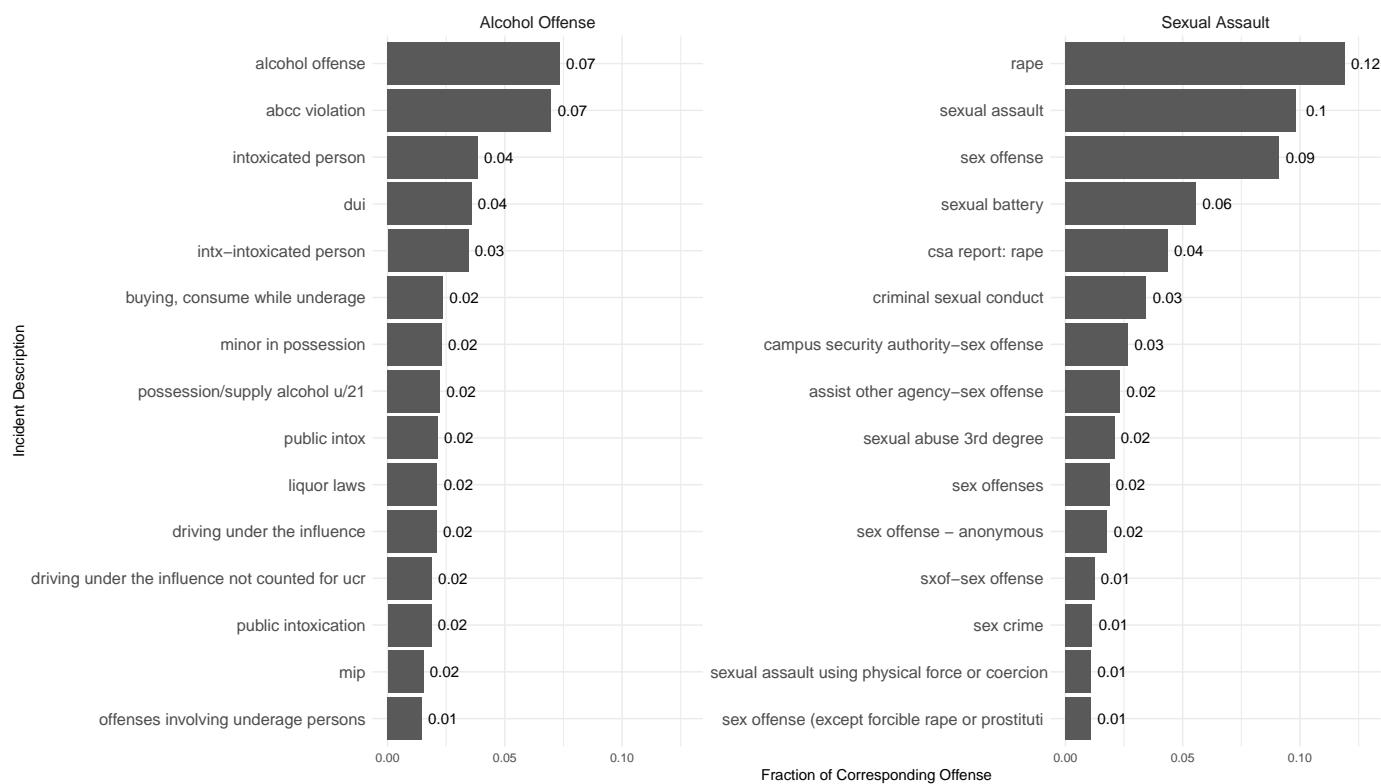


Figure E2: Top 15 Most Frequent Offense Matches

Note: The top 15 most frequent offense matches represent the 15 most frequent incidents after the pattern matching exercise. The x-axis represents the fraction of the total number of offenses in each category.

Table E1: Description of the Triggering Events that lead to a Moratorium

University	Description of Triggering Event	Triggering Event Date	Moratorium Start Date	Classification
Arkansas State University-Main Campus	Arrest of a man suspected of raping a 19-year old woman at a party in a fraternity house.	2017-02-10	2017-02-21	Sexual Assault
Ball State University	Concerns regarding the behavior and actions of members of IFC fraternities.		2017-10-24	Behavior
Cal Poly San Luis Obispo	A report of a sexual assault that allegedly took place at a social event hosted by a Greek group.		2015-01-13	Sexual Assault
Cal Poly San Luis Obispo	Racially insensistive photos surfacing on social media featuring fraternity members in both blackface and gang-related images.	2018-04-08	2018-04-17	Behavior
Clemson University	Alleged sexual assault.	2018-01-27	2018-01-29	Sexual Assault
College of Charleston	Decision was made after consulting with student leaders within the community.		2016-08-30	Unspecified
East Carolina University	An alleged sexual assault on Jan. 25 that provoked an ongoing investigation with the Greenville Police Department.	2015-01-25	2015-01-28	Sexual Assault
Emory University	Report of a sexual assault in a fraternity house.	2014-11-02	2014-11-03	Sexual Assault
Florida Atlantic University	Tailgating issues involving alcohol.		2017-11-28	Behavior
Florida International University	Growing concerns about the state of fraternity and sorority life at FIU as well as around the nation.		2018-01-01	Unspecified
Florida State University	Death of Andrew Coffey.	2017-11-03	2017-11-06	Death
Indiana University-Bloomington	A university spokesperson said the decision came in light of the ongoing national conversation about Greek life and its place on college campuses, as well as challenges on IU's Bloomington campus. The decision is not attributable to one particular incident.		2017-11-27	Unspecified
Louisiana State University	Death of Maxwell Gruver.	2017-09-14	2017-09-14	Death
Louisiana State University	Unclear.		2017-10-19	Unspecified
Marshall University	High-risk behavior in the fraternity community.		2018-03-05	Behavior
Monmouth University	Troubles within the fraternity system.		2018-09-06	Behavior
Murray State University	The letter implementing the suspension indicates that "national trends, and our own review...".		2018-08-27	Unspecified
North Carolina State University at Raleigh	Surfaced newstory of a pledge book that featured racially insensitive remarks and rape jokes.	2018-03-20	2018-03-20	Sexual Assault
Ohio State University-Main Campus	Proactive step based on the significantly high number of investigations this semester, not on the nature of any specific case or cases.		2017-11-16	Behavior
Ohio University-Main Campus	Allegations within the past week of hazing at seven of the fraternities.		2019-10-03	Behavior
Rollins College	The temporary suspension was issued after reviewing a 'series of student conduct concerns.'		2017-02-21	Behavior
Rutgers University-New Brunswick	Several incidents with alcohol .		2015-04-06	Behavior
San Diego State University	Sexual assault allegations.		2014-11-25	Sexual Assault
San Diego State University	Ongoing concerns related to alcohol.		2018-03-09	Behavior
San Diego State University	Death of Dylan Hernandez.	2019-11-07	2019-11-09	Death

Syracuse University	A string of racist and anti-Semitic incidents.		2019-11-17	Behavior
Texas State University	Death of Matthew Ellis.	2017-11-13	2017-11-14	Death
Tufts University	Accusations of hazing and discrimination.		2016-11-16	Behavior
University at Buffalo	Death of Sebastian Serafin-Bazaan.		2019-04-12	Death
University of California-Berkeley	Reports of sexual assault at off-campus fraternity functions.		2016-10-16	Sexual Assault
University of Central Florida	Decision was made in light of drinking-related controversies.		2018-01-08	Behavior
University of Idaho	A response to the growing national crisis surrounding personal violence like hazing and sexual assault.		2017-12-12	Unspecified
University of Iowa	Death of Kamil Jackowski.	2017-04-30	2017-05-01	Death
University of Kansas	Poor behavior among some Greek groups at the University of Kansas.		2018-03-12	Behavior
University of Michigan-Ann Arbor	Claims of sexual misconduct cases involving fraternity brothers, six incidents of reported hazing, more than 30 hospital transports for students during the weekend of the football game against Michigan State.		2017-11-09	Sexual Assault
University of Missouri-Columbia	Hazing allegations.		2018-03-06	Behavior
University of New Mexico-Main Campus	With three UNM fraternities already in “emergency suspension” following allegations of hazing or alcohol policy violations, administrators have ordered a two-month halt to most social events within the university’s larger Greek system.		2017-12-08	Behavior
University of Pittsburgh	A serious alcohol incident involving members and non-members of one of the fraternities.	2018-01-18	2018-01-19	Behavior
University of Virginia-Main Campus	Rolling Stone article describing the fraternity culture at the school.	2014-11-19	2014-11-22	Sexual Assault
Washington State University	Due to the current negative reputation of the community.		2016-11-07	Unspecified
Washington State University	Death of Samuel Martinez.	2019-11-12	2019-11-14	Death
West Virginia University	Death of Nolan Burch	2014-11-12	2014-11-13	Death
West Virginia University	The result of a Theta Chi brother published a Snapchat video on social media using a racial slur directed at a bartender in a downtown Morgantown club.		2018-02-14	Behavior

Note:

Description of the triggering event is summarized based on newsarticles or conversations with Fraternity and Sorority Life staff. The date of the triggering event is shown if provided. The classification of each event is based off of the description and aligns with Figure 2.

Table E2: Moratorium Dates of Each University in the Sample

University	Start 1	End 1	Start 2	End 2	Start 3	End 3
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	2014-11-25	2015-01-09	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 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		

Note:

Universities can have multiple moratoriums in the sample period. Each moratorium date was verified by either a Fraternity and Sorority Life advisor, a news article, or a public records request. However, the first San Diego State University moratorium end date could not be directly verified by either a fraternity or sorority advisor, news article, or public record request. Based on the following news article link, I am confident that the moratorium ended before the start of the 2015 semester. Link: https://newscenter.sdsu.edu/sdsu_newscenter/news_story.aspx?sid=75357

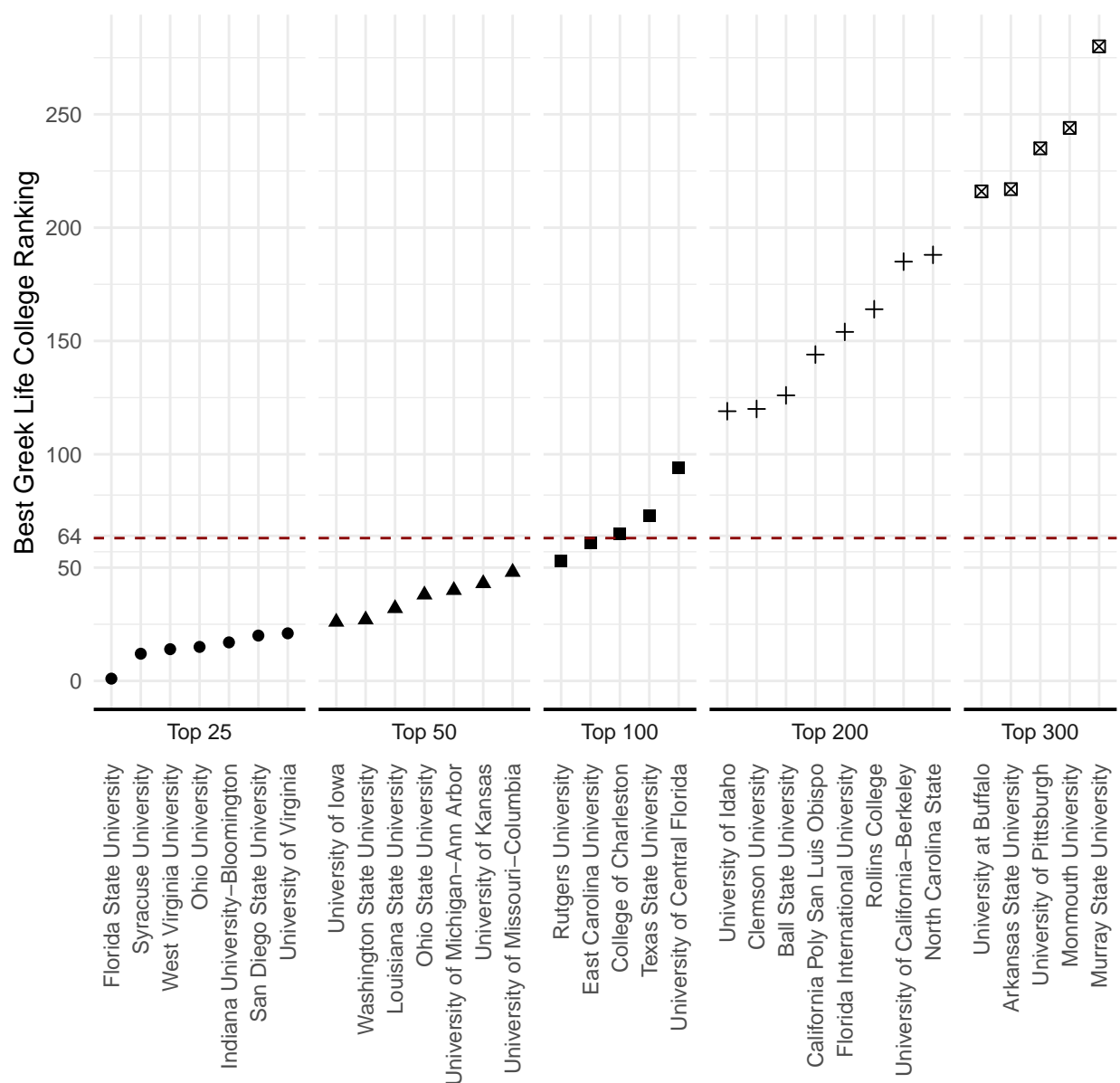


Figure E3: Greek-life Rankings of Universities Included in the Sample

Note: Greek-life rankings are based on Niche.com's 2023 list of Best Greek Life Colleges in America. Rankings are based on survey responses from Niche.com users on the quality of Greek Life at their school. The dashed red line represents the median ranking of the 37 universities in the sample. Three-hundred universities are ranked in the list. Of the universities in the sample, 14 of the 37 universities (38%) are ranked in the top 50, while only 5 of 37 (13%) are not ranked.

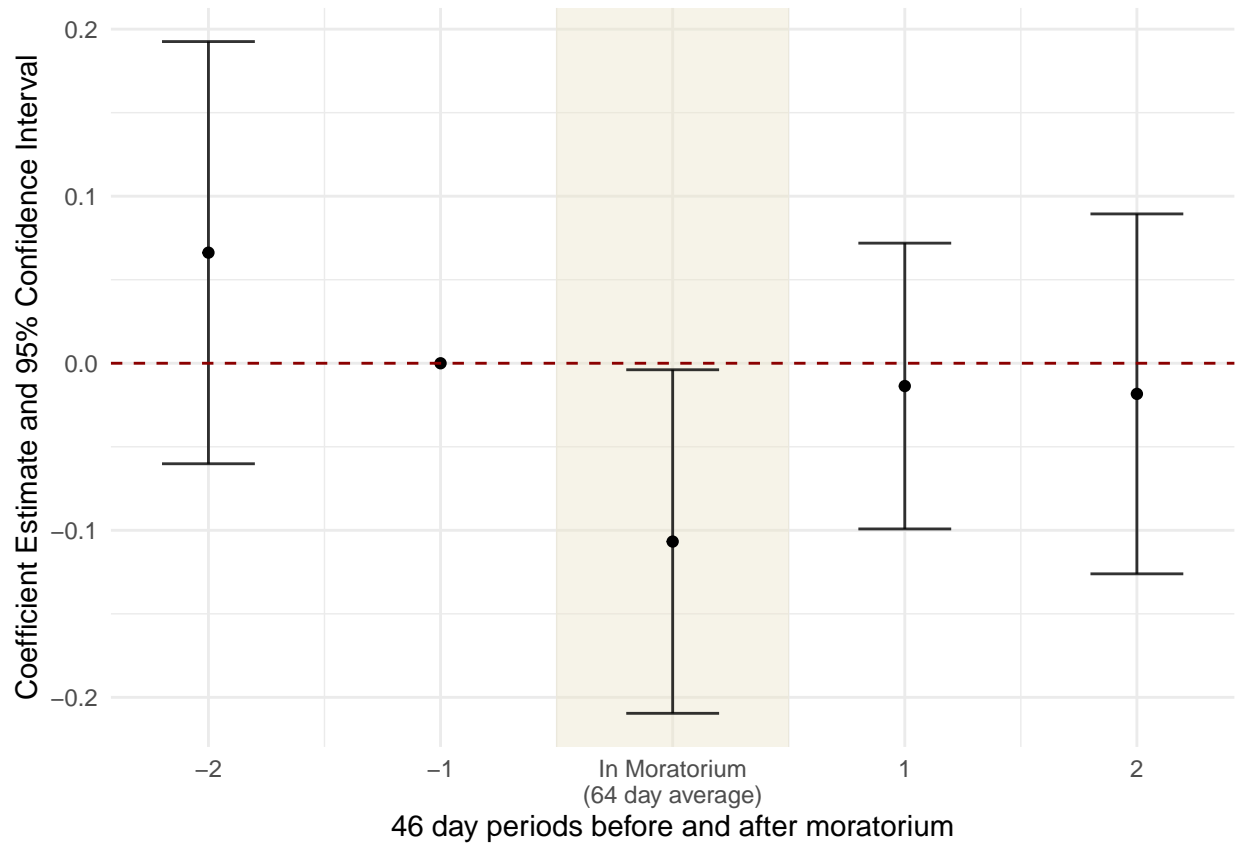


Figure E4: Event Study for Alcohol Offenses

Note: The shaded area point estimate represents an entire moratorium period for each university. Hence, the shaded area point estimate has varying amounts of days within based on the university. For instance, Arkansas State University had a 39 day moratorium and therefore their shaded area point estimate would be identified by the 39 moratorium days. Point estimates not within the shaded region are 46 day periods. Number of days within a period was chosen to give approximately two median-length (46 days) moratorium on each side of the shaded area. All periods are normalized by the 46-day period before the moratorium. Alcohol offenses are defined as alcohol offenses per-25000 enrolled students. Controls include holiday, spring semester, day of the week, football game-days, and university by academic year. Standard errors clustered by university. All errorbars represent 95% confidence intervals.

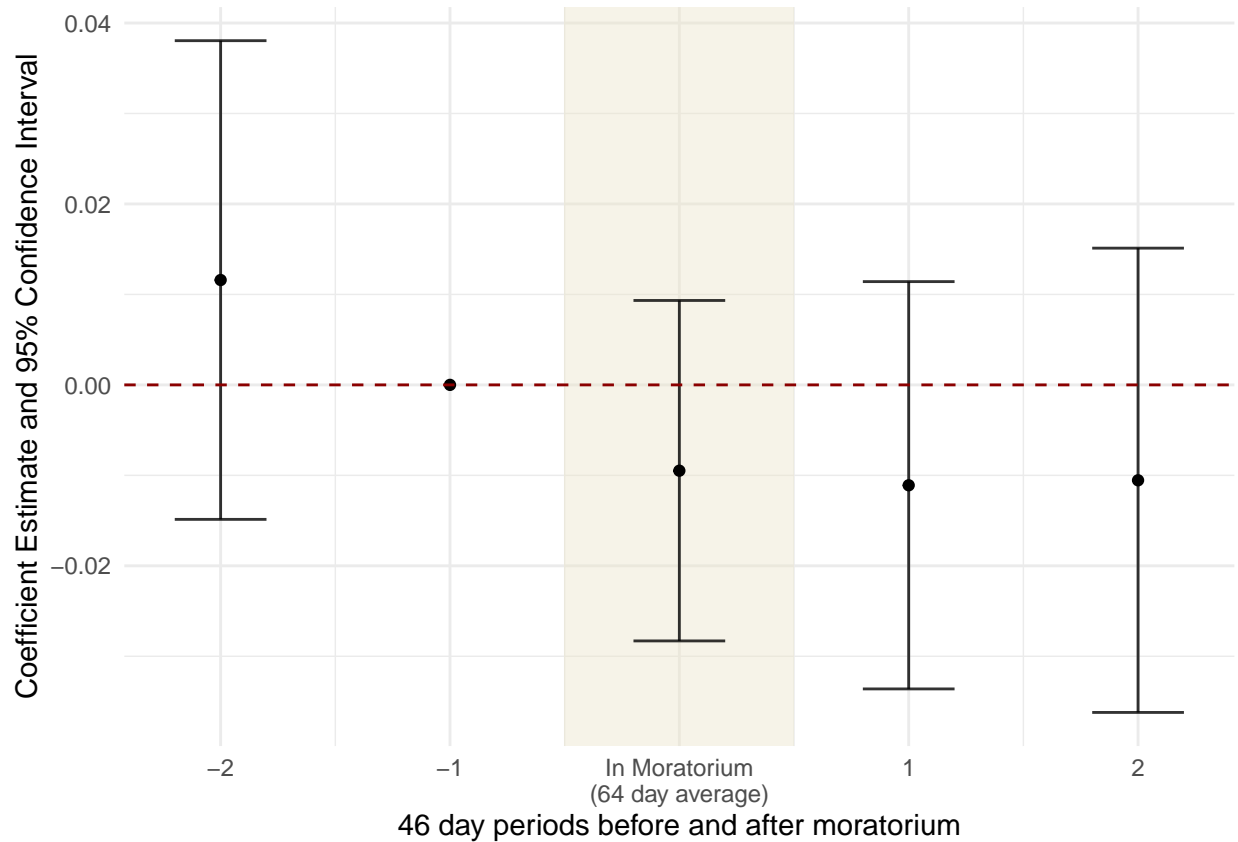


Figure E5: Event Study for Sexual Assault Offenses

Note: The shaded area point estimate represents an entire moratorium period for each university. Hence, the shaded area point estimate has varying amounts of days within based on the university. For instance, Arkansas State University had a 39 day moratorium and therefore their shaded area point estimate would be identified by the 39 moratorium days. Point estimates not within the shaded region are 46 day periods. Number of days within a period was chosen to give approximately two median-length (46 days) moratorium on each side of the shaded area. All periods are normalized by the 46-day period before the moratorium. Sexual assault offenses are defined as sexual assault offenses per-25000 enrolled students. Controls include holiday, spring semester, day of the week, football game-days, and university by academic year. Standard errors clustered by university. All errorbars represent 95% confidence intervals.

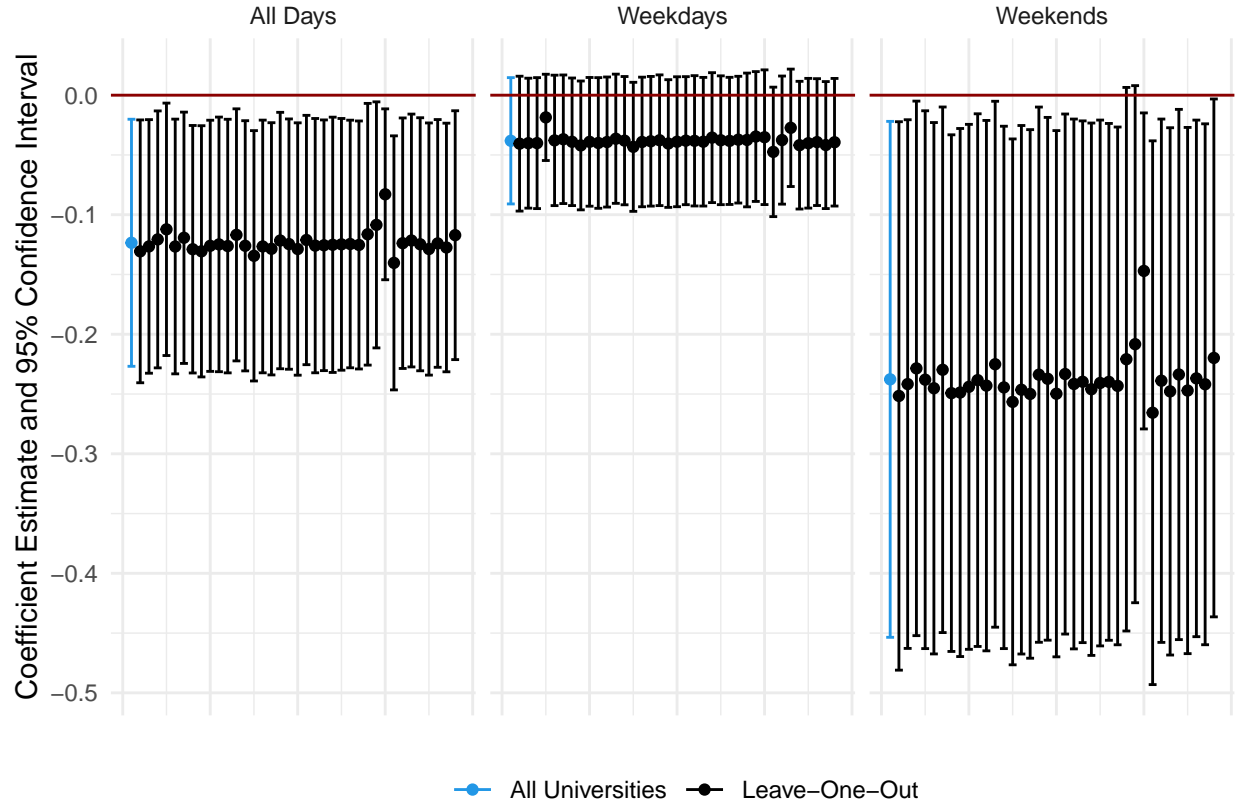


Figure E6: Leave-one-out OLS Regressions of Alcohol Offenses

Note: Each blue point represents the preferred specification (2) from Table 4. Each black point represents specification (2) from Table 4 with one university omitted from the sample. Offenses are per-25000 enrolled students. Errorbars represent 95% confidence intervals. Weekends includes only Friday, Saturday, Sunday, while weekdays includes Monday through Thursday.

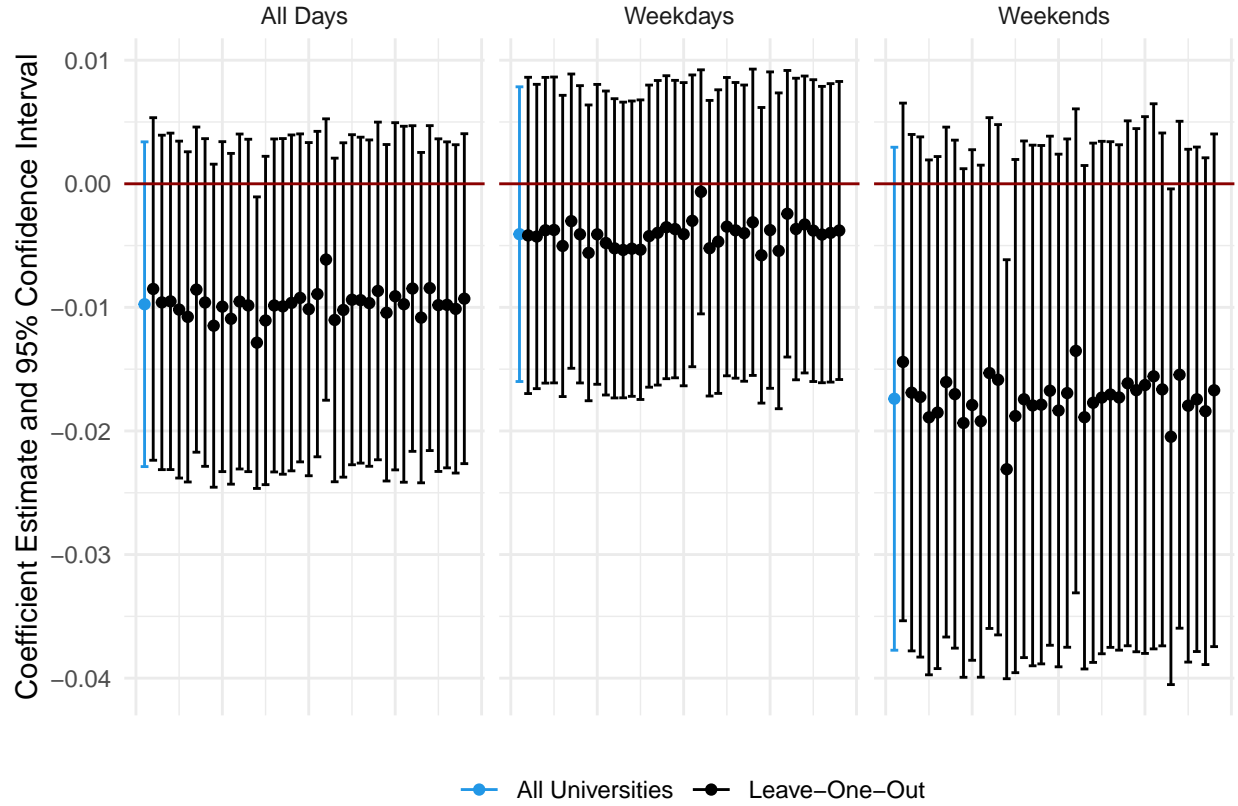


Figure E7: Leave-one-out OLS Regressions of Sexual Assaults

Note: Each blue point represents the preferred specification (2) from Table 4. Each black point represents specification (2) from Table 4 with one university omitted from the sample. Offenses are per-25000 enrolled students. Errorbars represent 95% confidence intervals. Weekends includes only Friday, Saturday, Sunday, while weekdays includes Monday through Thursday.

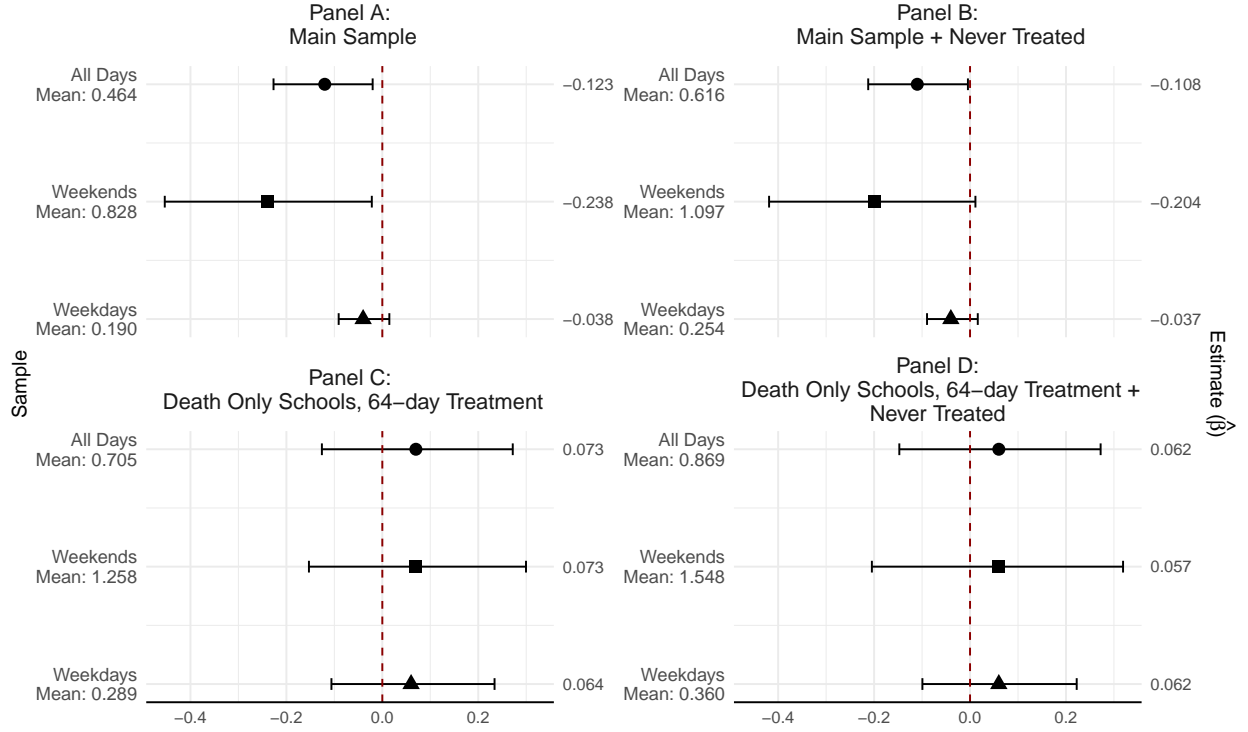


Figure E8: Robustness Across Samples (Alcohol Offenses)

Note: This graph depicts the coefficient estimates and 95% confidence intervals for different subsets of the sample. The y-axis on the left is the sample selection used, while the y-axis on the right is the point estimate. All estimates use the preferred specification from Table 4 Column 2, and all outcomes are in terms of per-25000 enrolled students. Standard errors are clustered at the university level. Panel A uses the main sample as shown in the main results, while Panel B uses the main sample in addition to 14 never-treated schools (see Section ?? for more details). Panel C analyzes 15 universities which undergo a fraternity death, but do not undergo a moratorium. A 64-day binary treatment period is given to each of these universities, beginning on the date of the death. Panel D extends the analysis in Panel C by adding in the 15 never-treated universities as controls, analogous to Panel B in reference to Panel A. See Section ?? for more details.

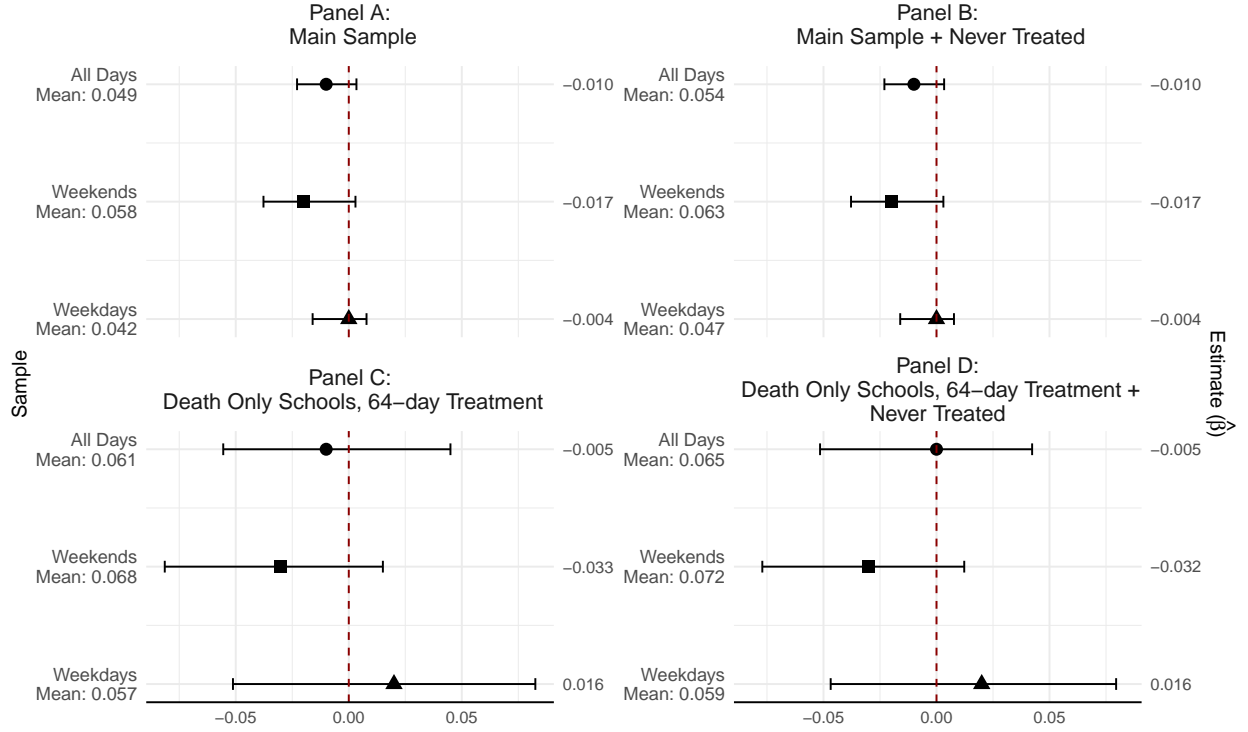


Figure E9: Robustness Across Samples (Sexual Assaults)

Note: This graph depicts the coefficient estimates and 95% confidence intervals for different subsets of the sample. The y-axis on the left is the sample selection used, while the y-axis on the right is the point estimate. All estimates use the preferred specification from Table 4 Column 2, and all outcomes are in terms of per-25000 enrolled students. Standard errors are clustered at the university level. Panel A uses the main sample as shown in the main results, while Panel B uses the main sample in addition to 14 never-treated schools (see Section ?? for more details). Panel C analyzes 15 universities which undergo a fraternity death, but do not undergo a moratorium. A 64-day binary treatment period is given to each of these universities, beginning on the date of the death. Panel D extends the analysis in Panel C by adding in the 15 never-treated universities as controls, analogous to Panel B in reference to Panel A. See Section ?? for more details.

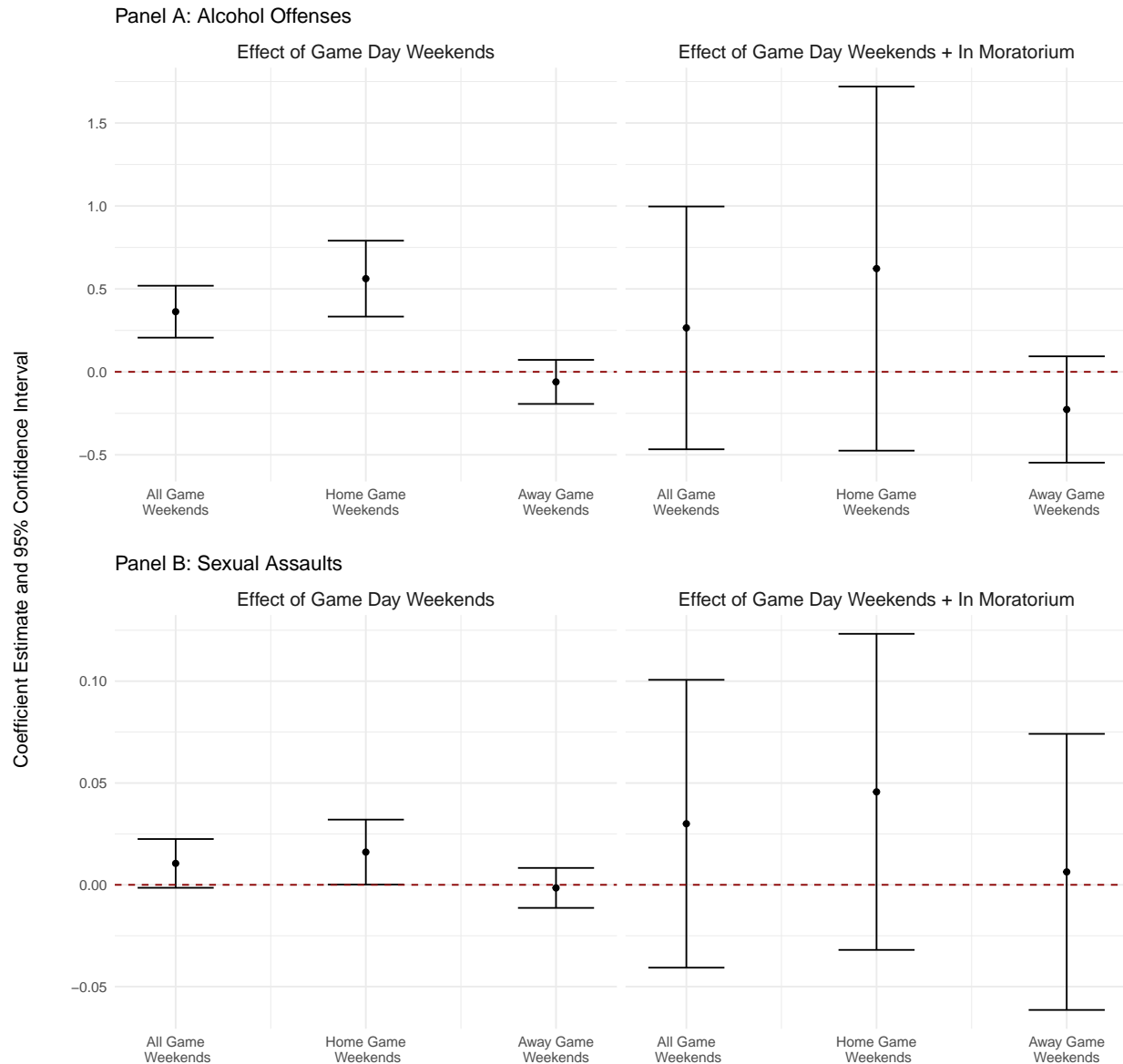


Figure E10: The Effect of Football Game-day Weekends and Football Game-day Weekends + Moratoriums

Note: Game weekends include all football games occurring in the sample period. 34 of the 37 universities have football teams and corresponding game days. The y-axis represents coefficient estimates. Errorbars represent 95% confidence intervals. Each panel is split into two effects: the first effect being the effect of only football game-day weekends on the outcome per-25000 enrolled students, and the second being the effect of a football game-day weekend that occurs within a moratorium. A game-day weekend is defined as a weekend in which a football game occurs. For example, if a game occurs on a Friday, then Saturday and Sunday will be included in the game weekend. Note that weekends are defined as Friday/Saturday/Sunday. "All Game Weekends" includes both home and away games. The effects of game-day weekends + moratorium is identified by 245 football game days that coincide with moratoriums. Controls include holiday, spring semester, day of the week, and university by academic year. Standard errors are clustered by university.

Table E3: Comparison of All Relevant Data Sources

	Data Source			
	Daily Crime Logs	CSS	NIBRS	UCR
<i>Source and Requirement:</i>				
Source of Data:	University police departments	US Department of Education	FBI	FBI
Reporting Mandate:	By-law	By-law	Voluntary	Voluntary
<i>Aggregation and Consistency:</i>				
Level of Aggregation:	Incident-level	Yearly	Incident-level	Monthly
Fraction Reporting Consistently:	1.00	1.00	0.24	0.78
<i>Offenses Reported and Location:</i>				
Alcohol Violations:	All incidences reported to or by the university police.	All incidences reported to or by any university entity.	Arrests only	None
Sexual Assaults:	All incidences reported	All incidences reported	All incidences reported	Hierarchy rule
Residence Hall Information:	No	Yes	No	No
Analysis in Paper:	Main analysis	Substitution of partying	Spillovers of partying	Not used

Note:

Appreviations of the data sources are as follows: Campus Safety Security (CSS), National Incidence-based Reporting System (NIBRS), Uniform Crime Report (UCR). The Daily Crime Logs are used for the main analysis due to the advantages it has over the other sources. The fraction reporting consistently refers row corresponds to the fraction of the sample university police departments. For the NIBRS however, the fraction reported consistently refers to the number of university-specific and corresponding nearby police departments that report consistently. The hierarchy rule is a classification rule by the UCR where only the most serious crime in an incident is reported. While over 50 percent of UCR data is recorded to be reported consistently, the true percentage is difficult to know since NAs and 0s are treated as equivalent in the data.

Table E4: Effect of Moratoriums on Alcohol Offenses and Sexual Assaults (Poisson)

	Specification (2)				
	(1)	(2)	(3)	Weekends (4)	Weekdays (5)
<i>Panel A: Alcohol Offenses</i>					
In Moratorium	-0.216** (0.093)	-0.305*** (0.087)	-0.328*** (0.104)	-0.328*** (0.092)	-0.247 (0.161)
Observations	55115	54151	52541	22578	29823
Mean of Dependent Variable	0.524	0.524	0.524	0.939	0.211
<i>Panel B: Sexual Assaults</i>					
In Moratorium	-0.164** (0.076)	-0.199* (0.110)	-0.187 (0.117)	-0.388** (0.147)	-0.016 (0.141)
Observations	55115	52905	50077	21775	28003
Mean of Dependent Variable	0.051	0.051	0.051	0.062	0.043
FE: Day of Week	X	X	X	X	X
FE: Holiday	X	X	X	X	X
FE: Game Day	X	X	X	X	X
FE: Semester (Spring/Fall)	X	X	X	X	X
FE: University	X				
FE: Academic Year	X				
FE: University by Academic Year		X		X	X
FE: University by Academic Year by Semester			X		

Note:

Standard errors are clustered by university and each offense is defined as a count. Observation values may vary between specifications due to no variation with particular fixed effects. Specification (2) is the preferred specification due to the flexibility of the fixed effects and the conservativeness of the estimates in the main results. A weekend is defined as Friday-Sunday while a weekday is defined as Monday-Thursday.

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

Table E5: Effect of Moratoriums on Alcohol Offenses and Sexual Assaults (WLS)

	Specification (2)				
	(1)	(2)	(3)	Weekends (4)	Weekdays (5)
<i>Panel A: Alcohol Offenses</i>					
In Moratorium	-0.128*** (0.046)	-0.129** (0.050)	-0.131** (0.049)	-0.243** (0.103)	-0.042 (0.030)
Observations	55115	55115	55115	23643	31472
Mean of Dependent Variable	0.464	0.464	0.464	0.828	0.190
Wild Bootstrap P-Value	0.005	0.006	0.010	0.006	0.170
<i>Panel B: Sexual Assaults</i>					
In Moratorium	-0.007* (0.004)	-0.008* (0.005)	-0.008 (0.005)	-0.019** (0.008)	0.000 (0.005)
Observations	55115	55115	55115	23643	31472
Mean of Dependent Variable	0.049	0.049	0.049	0.058	0.042
Wild Bootstrap P-Value	0.062	0.095	0.121	0.030	0.989
FE: Holiday	X	X	X	X	X
FE: Game Day	X	X	X	X	X
FE: Semester (Spring/Fall)	X	X		X	X
FE: University	X				
FE: Academic Year	X				
FE: University by Academic Year		X		X	X
FE: University by Academic Year by Semester			X		

Note:

Estimates are obtained using WLS. All regressions are weighted by total enrollment. Standard errors shown in parenthesis are clustered by university (37 clusters) and each offense is defined as per-25000 enrolled students. P-values from 1000 wild cluster bootstrap iterations are shown for the In Moratorium coefficient as suggested by Cameron, Gelbach, and Miller (2008) in cases with a small number of clusters (typically lower than 30). This analysis is near, but not below this threshold. Game Day controls consist of university football games within each university. Weekends include Friday-Sunday while Weekdays include Monday-Thursday. Column 2 is the preferred specification due to the flexibility of the fixed effects and the conservativeness of the estimates. Significance stars correspond to clustered standard errors.

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

F Referee Figures

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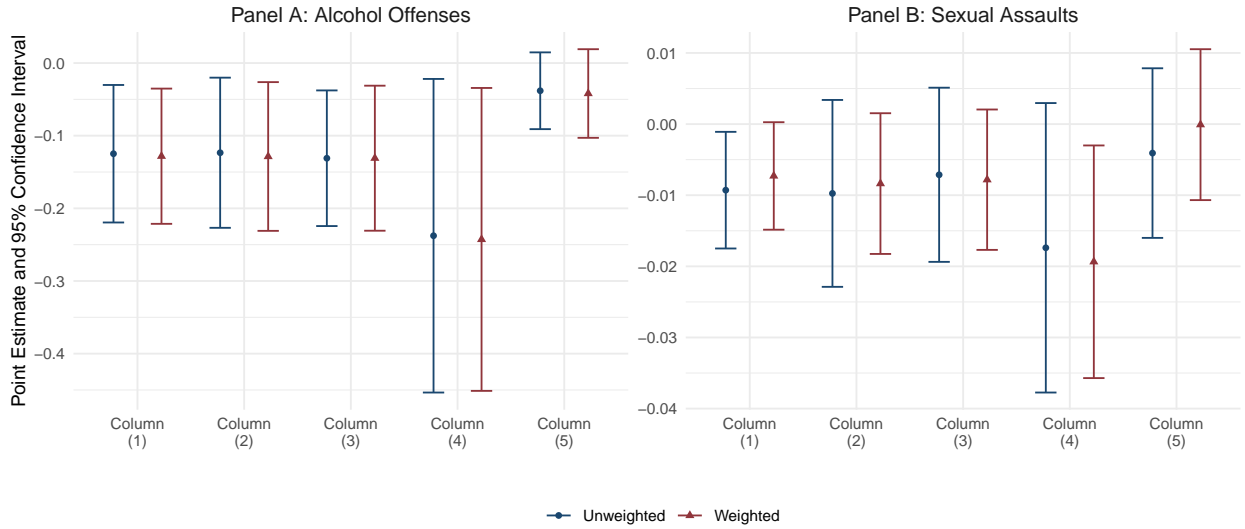


Figure F1: The Effect of Moratoriums: OLS vs. WLS

Note: The x-axis represents the columns from Tables 4 and E5. The y-axis represents the point estimates and 95% confidence intervals. Unweighted regressions represent estimates from Table 4 while weighted regressions represent estimates from Table E5. Weighted regressions are weighted by total enrollment. Controls include holiday, spring semester, day of the week, football game-days, and university-by-academic-year. Standard errors are clustered by university.