Investigating Clery Act Data

This document will analyze the sexual assault/liquor violations/drug violations in the Clery Act data with comparison to my own daily crime logs.

Main Points of the Data

The Clery Act Data is an official source of data representing all crimes on campus (although not necessarily reported to the police). The data is aggregated at the yearly level, and hence, the data is imperfect for my study, but still brings light to some potential mechanisms.

The data is split into several parts:

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

For my purposes, the most beneficial categories to me are residential halls and noncampus offenses. In particular, it could be that fraternity moratoriums cause a substitution towards behaviors off campus or into residence halls. On the other hand, residence halls are mainly younger students and their amount of partying might be relatively inelastic when it comes to moratoriums (they are not directly affected by it).

All of the regressions in this document will use the following form:

$$Y_{u,t} = \beta Moratorium_{u,t} + \gamma_u + \phi_t + \epsilon_{u,t}$$

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

	Unique (#)	Missing (%)	Mean	SD	Min	Median	Max	
Residence Hall	40	0	14.6	14.6	0.0	11.5	122.0	L
Noncampus	22	0	3.4	5.0	0.0	1.0	29.0	
All Sexual Assault in Clery	61	0	35.9	125.2	2.0	20.0	1489.0	
Daily Crime Logs	49	1	16.7	16.2	0.0	13.0	164.0	L

Sexual assault is defined as the sum of rape, fondling, and incest categories.

Table 1: OLS Regressions on the effect of Moratoriums for Clery Act Sexual Assaults and Daily Crime Log Sexual Assaults

	Clery Total	Daily Crime Logs			
treatment	-19.528	-4.892			
	(15.644)	(4.090)			
Num.Obs.	228	226			
Std.Errors	Clustered (university)	Clustered (university)			
FE: university	X	X			
FE: year	X	X			
+ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001					

Sexual Assaults

OLS Regressions

First want to compare my results aggregated up to the Clery Act Data.

This warning is displayed once per session.

Warning: In version 0.8.0 of the 'modelsummary' package, the default significance markers produced by

Same direction and neither are significant when aggregated up to this level. Let's look deeper into sexual assaults in the clery act data.

Off campus sexual assault seems to be going up, while residence hall rapes are going down. Both of these are significant.

Table 2: OLS Regressions of Sexual Assault Clery Act Data - Residence Halls and Off Campus

	Residence Hall Sexual Assault	Off Campus Sexual Assault
treatment	-13.325*	7.696+
	(4.932)	(4.293)
Num.Obs.	228	228
Std.Errors	Clustered (university)	Clustered (university)
FE: university	X	X
FE: year	X	X

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

Table 3: Poisson Regressions of effect of Moratoriums on Sexual assault for Clery Act Data and Daily Crime Logs

	Clery Act Sexual Assault	Daily Crime Logs			
treatment	-0.530	-0.254			
	(0.363)	(0.191)			
Num.Obs.	228	226			
Std.Errors	Clustered (university)	Clustered (university)			
FE: university	X	X			
FE: year	X	X			
+ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001					

Table 4: Effect of Moratorium on Clery Act Sexual Assaults for Residence Halls and Off Campus

	Residence Hall	Off Campus
treatment	-0.731***	1.034***
	(0.203)	(0.293)
Num.Obs.	228	222
Std.Errors	Clustered (university)	Clustered (university)
FE: university	X	X
FE: year	X	X
+ p < 0.1. * p	< 0.05, ** p < 0.01, ***	p < 0.001

Poisson Regressions

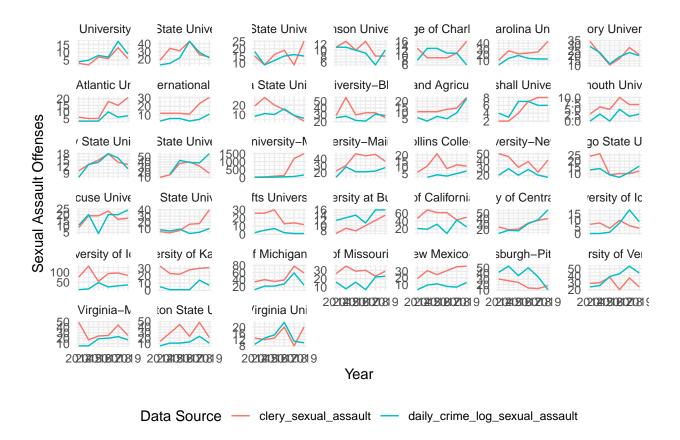
These are meant as a robustness check to the OLS regressions.

Daily Crime Logs Compared to Clery

Daily Crime Logs are my data while Clery Act Data is the official source.

	Unique (#)	Missing (%)	Mean	SD	Min	Median	Max	
Residence Hall	193	0	389.0	408.0	0.0	276.5	1890.0	L
Non-Campus	25	0	2.8	7.2	0.0	0.0	57.0	
Total Clery	200	0	412.8	422.4	0.0	288.5	1934.0	
Daily Crime Logs	163	1	154.2	148.9	0.0	103.0	651.0	

Total Clery is the sum of liquor violations in Residence Halls, Public Property, and On Campus. Daily Crime logs are my data, while Clery is official.



Alcohol/Liquor Violations

OLS Regressions

I will be using the normal difference-in-differences approach with a fixed effect model.

First, let's see if these give similar results to my data. My data might not show as clear of results since it is aggregated to a higher level, and now all summer months are included.

It appears that alcohol is increasing using the clery act data. Let me look deeper at each subcategory.

It looks like alcohol violations are increasing in the residence halls and that's where this effect is coming from. This makes sense for a couple reasons. First, residence hall liquor violations are not often reported to the police - they are dealt with internally. Second, since large fraternity events are now canceled, underage

Table 5: Effect of Fraternity Moratorium on Alcohol at Yearly Level for Clery and Daily Crime Logs

	Clery Act Data	Daily Crime Logs
treatment	150.911* (61.842)	-52.436+ (29.892)
Num.Obs. Std.Errors FE: university	228 Clustered (university) X	226 Clustered (university) X
FE: year	X	X

Clery Act Data is official data from Department of Education.

My data is the Daily Crime Logs.

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

	Residence Hall	Non-campus
treatment	137.765*	3.275
	(63.552)	(3.031)
Num.Obs.	228	228
Std.Errors	Clustered (university)	Clustered (university)
FE: university	X	X
FE: year	X	X

Effect of Moratorium on Alcohol Violations (Residence Halls and Non-campus)

students need to find a new place to engage in underage drinking behavior. A natural place is their own residences.

Poisson Regression

Note that while we do not see significant decreases in alcohol offenses in the daily crime log data, this is likely because the academic calendar days are not restricted in this data. I COULD restrict to only semester days and it would be significant.

The results are robust to the poisson estimator. Residence hall liquor violations are increasing significantly during moratoriums.

Table 6: Poisson Regressions of Effect of Moratorium on Alcohol Offenses.

	Clery Act Data	Daily Crime Logs
treatment	0.438* (0.188)	-0.114 (0.170)
Num.Obs. Std.Errors FE: university FE: year	228 Clustered (university) X X	226 Clustered (university) X X

Daily Crime Logs are my data.

Clery Act Data is official.

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

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

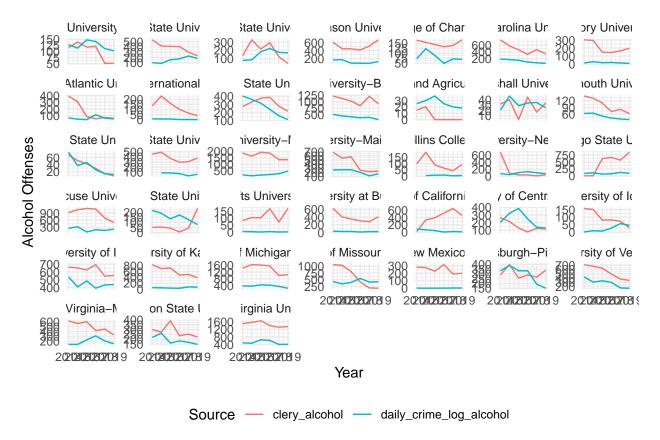
	Residence Hall	Non-campus
treatment	0.444*	2.481
	(0.202)	(1.520)
Num.Obs.	228	144
Std.Errors	Clustered (university)	Clustered (university)
FE: university	X	X
FE: year	X	X

Offense are counts, not rates.

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

Comparison to Daily Crime Logs

Recall that Daily Crime Logs are my data while the Clery Act is the official data.



Drug Offenses

OLS Regressions

Each of these have the same sign, as in, the Clery Act Total and the Daily Crime Log toal both show decreases, although only mine show signficant decreases.

Appears to be no change in drug offenses on campus or off campus in the drug category.

	Unique (#)	Missing (%)	Mean	SD	Min	Median	Max	
Residence Hall	129	0	84.8	91.8	0.0	50.0	405.0	L
Non-campus	14	0	0.8	2.3	0.0	0.0	17.0	
Clery Act Total	135	0	102.4	107.4	0.0	66.5	511.0	L
Daily Crime Logs	155	1	140.3	142.5	0.0	90.0	617.0	

Table 7: OLS Regression of Effect of Moratorium on Drug Offenses

	Clery Act Data	Daily Crime Logs
treatment	-18.807 (42.920)	-52.431* (20.225)
Num.Obs. Std.Errors FE: university FE: year	228 Clustered (university) X X	226 Clustered (university) X X

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

Table 8: OLS Regressions Effect of Moratorium on Drug Offenses Clery Act Data Subsetted

$ \begin{array}{c cccc} \text{treatment} & -23.320 & 0.016 \\ \hline & (41.059) & (0.818) \\ \hline \text{Num.Obs.} & 228 & 228 \\ \hline \text{Std.Errors} & \text{Clustered (university)} & \text{Clustered (university)} \\ \text{FE: university} & X & X \\ \hline \text{FE: year} & X & X \\ \hline \end{array} $		Residence Hall	Noncampus
Num.Obs.228228Std.ErrorsClustered (university)Clustered (university)FE: universityXX	treatment	-23.320	0.016
Std.Errors Clustered (university) Clustered (university) FE: university X X		(41.059)	(0.818)
FE: university X X	Num.Obs.	228	228
	Std.Errors	Clustered (university)	Clustered (university)
FE: year X X	FE: university	X	X
	FE: year	X	X

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

Table 9: Poisson Regression Effect of Moratorium on Drug Offenses

	Clery Act Data	Daily Crime Logs
treatment	0.195 (0.399)	-0.445^* (0.174)
Num.Obs. Std.Errors FE: university FE: year	228 Clustered (university) X X	226 Clustered (university) X X

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

Table 10: Effects of Moratorium on Drug Offenses for Clery Act Data

	Residence Hall	Non-campus
treatment	0.109	1.434
	(0.442)	(2.373)
Num.Obs.	228	144
Std.Errors	Clustered (university)	Clustered (university)
FE: university	\mathbf{X}	X
FE: year	X	X

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

Poisson Regressions