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Sexual Assault on College Campuses

And Preventative Actions Taken by Schools: an Empirical Study

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Abstract

Sexual assault on college campuses in the United States is a serious and recently public issue faced by students and schools. Beginning with the White House Task Force to Protect Students from Sexual Assault report in April of 2014, up to the words of Vice President Biden at the 2016 Oscars, students and schools are being urged to take action against sexual assault. Schools have responded with disciplinary policy, anti-violence education, and intervention programs aimed at preventing sexual assaults on their campuses. This empirical study examines whether or not these programs are effective at reducing incidents of on-campus sexual assault.

Research Question and Motivation

As a Student Employee of Residential Education and Housing at The College of New Jersey, I have gone through many kinds of training about awareness and protection against sexual assault for college students. Recently, The College of New Jersey began using Every Choice Matters videos and quizzes to educate incoming freshmen. The economic problem is whether the actions like these, taken by the school, have any effect at all on instances of sexual assault on campus. There are many existing models that analyze possible determinants of sexual assault on campus, and this study will incorporate variables relating to campus action into existing models.

Schools can engage in many different forms of anti-violence initiatives. These include, but are not limited to, bystander intervention classes led by peers, online instructional videos, surveys and quizzes, awareness campaigns, and policy and disciplinary action. Some schools have these programs and some do not, but for the most part these actions are not uniform enough to be measureable. This study will include some proxies for school action in an attempt to determine the success of actions by the school. This brings us to the research question: Are actions taken by 4-year degree granting institutions statistically significant in reducing on-campus rates of incidence?

Initial Literature Review

Sociology and education literature is full of studies about the victims of sexual assault, and which demographics experience and report sexual assault compared to others. However, there is not a lot of literature about prevention of sexual assault. In the last two years

awareness of the topic of sexual assault, particularly for students, has greatly increased. President Barack Obama created the White House Task Force to Protect Students from Sexual Assault, which published its first report in April of 2014. This was one year after the renewal of the 1994 Violence Against Women Act, with the new version containing language protecting people with a wider range of genders and sexual orientations. These have opened the gates for activist groups as well as schools to pursue better policies regarding sexual assault prevention.

There are some determinants of sexual assault over which a school has little or no control. For example, a school generally cannot change its location. However, location may influence sexual assault rates for a school. Sacco, Johnson, and Arnold (1993) examined differences in crime rates in urban areas and rural areas. They found that violent crimes tended to be significantly higher in urban areas, but that this increased rate was more likely due to lurking variables, such as the closeness of the residents of smaller areas and tendencies toward informal conflict resolution. They theorized that urban residence may be a proxy for other social and lifestyle differences that are difficult to articulate and even more difficult to measure. In addition, a study done by Ménard and Ruback (2003) indicated that there are great reporting differences between urban and rural settings, which are likely due to factors such as the tendency of the urban study population to stay out later and consume alcohol in greater amounts than their rural counterparts. These social factors and lurking variables are out of the short-term control of school administrators, both because of their hidden nature and the slow process by which cultures change. However, as schools attempt to reduce incidence rates on their campuses, it is important to take these factors into account.

There are other determinants of sexual assault over which schools have some influence, but are not likely to make drastic changes. For instance, a study by Ricker (1992) indicates a strong relationship between alcohol consumption and rape. Ricker proposed that a campus health program be administered to all students in order to educate them about alcohol consumption and about sexual assault. Ricker believed that education could reduce the incidence rate of sexual assaults on campus. Welch and Mason (2007) also described the connection between alcohol consumption and rape. Added to their study were further questions that the authors had that were outside of the scope of the study but indicated further research. The influence of education on sexual assaults was one such unanswered question in their study. It is therefore important to include education of the students in this study.

There is not a consistent measure of alcohol consumption across all colleges in the United States. Parry (2015) suggested that alcohol consumption is strongly linked to both Greek Life involvement and rape. While it is not possible to determine which factor is causal, they have a strong correlation. In this case, Greek Life participation could be used as an indicator for alcohol consumption on campuses. A paper by Armstrong, Hamilton, and Sweeney (2006) shows connections not only between Greek Life and alcohol consumption, but between fraternity involvement and social support for gendered power differences that lead to sexual assault.

It was stated above that education and Greek Life participation are not something which schools are likely to change. It is possible for schools to select students of higher education levels for admittance into their schools. However, it would be difficult for a college to suddenly

and substantially raise its admittance requirements and still continue to have the same available enrollment. Likewise, the sudden change of a school to being a dry campus or the sudden disbanding of all Greek organizations would probably create a huge backlash from past, present, and potential students.

Schools may have some control over other determinants of sexual assault. A study was done by Bachman, Paternoster, and Ward (2007) to attempt to determine the effects of morals and sanctions against perpetrators on reducing sexual assaults. The results of their survey and analysis of responses to hypothetical scenarios indicated that morals had a strong influence on whether or not a sexual assault would take place, as compared to fear of repercussions. Schools are not likely to make large or abrupt changes in the morals of their students. But the study also indicated that formal sanctions had a strong influence on deterring acts of sexual assault, whereas informal social sanctions had little effect. To this end, school disciplinary policy would provide a strong indication of how the school treats sexual assaults.

In addition to formal sanctions, schools have a great amount of control over how they treat incidences, and in how they address alleged victims and perpetrators. In an in-depth study of their own Rhodes University, de Klerk, Klazinga, and McNeill (2007) examined the history and progression of how the administration handled incidents. Some of the changes over the years were increased infrastructure, such as the addition of panic buttons, similar to the Blue Light boxes found at many schools. The appointment of a new Dean of Students who was focused on improving the way sexual assault was handled on campus led to an Awareness Week, which equally focused on men and women as partners in the endeavor (de Klerk, Klazinga, and McNeill, page 122). The most influential changes at that school came from support provided by

the school to victims, and the way that perpetrators were treated after being found guilty. Following this was a substantial revision in the standard operating procedures of the school. By more thoroughly supporting victims and making more specific and formal sanctions against perpetrators, the school was able to reduce sexual assault incidence rates on campus. Students also felt safer and more secure being on campus.

Policy changes are difficult to quantify in a way that is measureable across schools. The focus on men and women as partners in preventing sexual assault, however, is a new policy. Effective in January 2013, the Federal Bureau of Investigation revised its policies on rape. This revision was accompanied by a change in the very definition of rape used by the organization. The original definition indicated that only females could be victims, and offered a limited definition of what constituted rape. The new definition allowed for persons of any gender to be victims, and greatly increased the scope of what would be considered rape. This type of change is backed by studies such as the Felson and Paré (2005) study, which analyzed the reporting of sexual assault under various combinations of genders. They found that reporting varied greatly depending on the gender of the victim and the perpetrator. Their data indicates that any gender can be sexually assaulted by any other gender. Although the majority of cases in the study involved male perpetrators and female victims, policies cannot fully address the problem of sexual assault unless the policy recognizes sexual assault as occurring among various combinations of genders.

Less formal means can also be used by schools to reduce the instances of sexual assault. These go beyond the informal and social sanctions that Bachman, Paternoster, and Ward (2007) found to be ineffective. Schools can empower students to prevent and report sexual assaults

themselves. This is more than social scripting. The same study found students' morals to play a major role in whether or not a sexual assault was committed, and some programs can call on those morals and educate the students on what to do when they encounter morally questionable situations. The Green Dot Bystander Intervention Program, founded by Dorothy Edwards, is one such program.

The Green Dot program teaches students what actions are available to them should they witness a sexual assault situation occurring. A study by Coker et al. (2014) compared a Green Dot campus with a school without the program. While further research was indicated, the authors found that students at the Green Dot school studied had statistically fewer incidences of sexual harassment and perpetration than in the two non-Green Dot schools examined. Peer leaders teaching students about options through the Green Dot program is thus a more successful strategy than informal social sanctions, and rounds out the options available to schools examined in this paper.

Based on the work of previous researchers, the location of a school, characteristics of its students, formal policies, and less formal programs are all expected to influence the rates of sexual assault on a campus.

The Model

Dependent Variable: Clery Sexual Assault Incidence Rate

The dependent variable is the incidence of sexual assault reports per enrolled student. The numerator is available from the Clery Reports, and the denominator, student population, from *US News and World Report*. Clery Reports are the result of the 1990 Jeanne Clery

Disclosure of Campus Security Policy and Campus Crime Statistics Act, which mandated that specific statistics and policies must be collected and publicly disclosed. It is widely accepted that Clery data vastly underreport the number of incidents that occur. However, this underreporting takes place in every Clery report from every school, so it should still be possible to determine if the explanatory variables are statistically significant, although the magnitude of the actual effect will be distorted.

Explanatory Variables 1 and 2: Student Conditions

Student standing is an indicator of awareness. It is expected that students with a greater amount of knowledge or potential for knowledge are more likely to be able to recognize sexual assault when it is taking place, and to seek help afterward. To indicate schools that have students with these characteristics, average SAT score will be used.

The College Board website describes the SAT as a test of a student's knowledge of subjects taught in high school. Researchers in favor of this idea have posited that the SAT may correlate with the general intelligence of a student, relating to their Intelligence Quotient (Frey, 2004: 376-377). Students with a greater general intelligence are more likely to have the tools and awareness to prevent sexual assault. Researchers more opposed to this idea have indicated that SAT may reflect family income and education more than the knowledge or reasoning ability of the student (Zwick, 2007: 42-43). Families with greater income or education are able to pass this greater education onto their children, as indicated by the higher SAT scores under this assumption. This education could include other factors beyond academics, such as how to

recognize and report situations involving sexual assault. Under either assumption, higher SAT scores would indicate characteristics leading to greater reporting of sexual assaults.

By selecting students who are more likely to be equipped to recognize and report sexual assault instances, schools can reduce campus incidence rates. Therefore, average SAT score is expected to have a negative relationship with sexual assault rates.

Studies have shown that sexual assault can be linked to alcohol consumption (Ricker, 1992: 226; Welch, 2007: 1154). On college campuses in particular, this drinking often occurs in relation to involvement in Greek life (Parry 2015). To approximate this risk, student involvement in Greek life will also be used. It is expected to have a positive relationship with sexual assault rates.

Explanatory Variables 3 to 5: Location

It is possible that the area around a school would impact the culture surrounding campus sexual assault. Proximity to urban areas is expected to increase reported sexual assault incidence, while distance from urban areas would decrease this rate. This is based on the fact that crime rates tend to be higher in urban areas (Sacco, 1993: 433-436), but that may be due to increased reporting in urban areas over rural areas rather than actually higher rates (Ménard and Ruback, 2003: 389). It is not conclusive that increased crime rates are caused by urban areas; it would also be reasonable that urban and rural areas are a proxy for lurking variables, perhaps having to do with lifestyle choices or crimes of opportunity (Sacco, 1993: 433-436).

Since neither the lifestyle choices of urban versus rural life nor the actual proximity to urban areas have to do with efforts made by schools to reduce sexual assault incidence, it is

important to control for these factors in this study. Three dummy variables will be used: one for cities, one for suburbs, and one for towns, as per the Locale Codes provided by the Common Core of Data branch of the National Center for Education Statistics (Common Core of Data, Locale Codes, 2015). Rural areas will be the default. Each of these is expected to have a positive relationship with sexual assault rates.

Explanatory Variable 6: Green Dot Participation

Bystander intervention is considered to be best practice by anti-violence professionals. When the perpetrators cannot be discouraged, bystander intervention encourages those witnessing the beginnings or the signs of sexual assault to take action to prevent and report the incident. The Green Dot program is designed to enable schools to teach their students about bystander intervention, and has been shown to be successful in reducing the number of incidents. There are currently around 280 Green Dot certified schools, and more than use Green Dot training in a reduced capacity, per the Green Dot website. This variable will be binary, one showing the presence of Green Dot and zero showing absence. This variable is expected to have a negative correlation with sexual assault incidents.

Explanatory Variable 7: Definition: Gender

Another indicator of the awareness of a school and its ability to educate its students about sexual assault is how inclusive the school code of conduct is in its definitions. A measureable proxy for a school's inclusiveness is how the gender of the perpetrator and the victim are addressed. In the media, it is common for a nonspecific perpetrator to be addressed

as male, and a nonspecific victim to be addressed as female. This language is considered biased; many perpetrators are female, many victims are male, and the victim and the perpetrator do not have to be opposite genders (Black, 2011: 1-2).

If this bias is shown in the code of conduct when addressing sexual assault, then it indicates a culture that would perpetuate this stereotype, and other gaps in understanding. If generic language is used, then the school would be more informed in its approach and its students would be more aware of the situation. For this study, a dummy variable equal to one will indicate generic language, and a zero will indicate bias. It is expected that this variable will have a negative relationship with sexual assault rates.

Explanatory Variables 8 and 9: Specific Actions

The extent to which a school's code of conduct describes and specifies actions considered to be sexual misconduct is also a good indicator of how the school addresses sexual assault with its students. A school that teaches its students awareness of sexual assault situations, creates an environment designed for prevention, and properly addresses victims and perpetrators after the fact will have updated their code of conduct to clearly specify a range of activities that would qualify as sexual assault. This code of conduct would contain language describing a number of different actions by a perpetrator that would be considered rape, going beyond penetration. It would also specify ways in which a victim would be unable to provide consent. In contrast, a school without the knowledge and ability to educate its students about sexual assault would not have updated its code of conduct from the restricted language used in

the past, such as the old FBI definition of rape as “carnal knowledge of a female forcibly and against her will.”

This will be captured in the model by two separate variables. The first will be the number of perpetrator actions specified in the code of conduct to be sexual misconduct. The second is the number of specific states or qualities of a victim that makes them unable to consent to sexual activity. A greater number for either variable is expected to indicate a greater amount of awareness and reporting. It may be argued that the broadened definition of rape indicated by a greater number in either variable would also increase the amount of incidents that would be defined as rape; this will be taken into consideration.

Full Model

Because Sexual Assault Incidence is a proportion, bounded by 0 and 1, to achieve consistent estimates it will be necessary to log the dependent variable. The explanatory variable SAT will also be logged, but the dummies will not. Then the model to be estimated is: Ln Sexual Assault Incidence = β_1 SCORES + β_2 Fraternity + β_3 City + β_4 Suburb + β_5 Town + β_6 GreenDot + β_7 GenericGender + β_8 PerpetratorActions + β_9 VictimState + ϵ,

Where the error terms, ϵ, are assumed to be random normal.

Initial Description of the Data

Dependent Variable: Clery Sexual Assault Incidence

The numerator will be taken directly from the Clery Report for each school, under the "sex offenses" section. The denominator will be taken from the *US News and World Report* school rankings data, which includes the population of the school.

Explanatory Variables 1 and 2: Student Conditions

Average test score by school and percentage involvement in Fraternities are both available via the *US News and World Report*.

Explanatory Variables 3 to 5: Location

This data is available on the National Center for Education Statistics website.

Explanatory Variable 6: Green Dot Participation

Green Dot schools are publicly available on the Green Dot website.

Explanatory Variables 7 to 9: Gender and Specific Actions

The Gender and Specific Actions will be constructed by hand directly from the code of conduct for each school in the study. The codes of conduct for all public colleges and universities are publicly available on the website of each respective school.

Summary Table

See Appendix A, Figure 1.

Analysis and Interpretation

The variables used in testing are slightly different than those described in the model section. The following describes any changes in the data that were necessary during collection or analysis.

Dependent Variable: Clery Sexual Assault Incidence

The Clery incidence rate used in the model is a three-year average number of incidents divided by the undergraduate student population. This helps to capture a greater amount of the underreported data.

Explanatory Variables 1 and 2: Student Conditions

The fraternity involvement data from US News and World Report were much less thorough than expected. Fraternity involvement has a great number of missing entries, cutting the number of observations available down significantly. The SAT data was more complete on the National Center for Education Statistics database, which also included data for ACT scores. Both SAT and ACT were standardized using the population mean and standard deviation from College Board, and the higher of these two for each school was used in the SCORES variable. Additionally, the standardized scores represent the 75 percentile rather than the mean. Specifically, 25% of admitted students who submitted each set of test scores managed to score above the standardized number listed in SCORES. This SCORES variable is also incomplete, and limits the observation number.

Explanatory Variables 3 to 6: Location and Green Dot Participation

The location and Green Dot data collection and model took place as expected.

Explanatory Variables 7 to 9: Gender and Specific Actions

The Gender variable collection took place as expected. However, since all but one of the schools in the sample had generic language with respect to gender, this variable was excluded from the analysis. Both variables for Specific Actions were divided into categories during data collection, so that a consistent method of data collection would be used.

For Perpetrator Actions, the categories were penetration (which specified who, where, and with what penetration was described), contact or touching (which specified who, where, and whether or not clothes were mentioned), and repeated requests (including sexual favors, and unwanted advances or sexual attention).

For Victim States, the categories were types of violence or coercion (including physical, mental, psychological, emotional, financial, environmental, and imbalance of power), incapacitation (including alcohol or drugs, unconsciousness or sleep, physical and mental impairment or disability), and a general category (including age, silence, passivity, previous dating or sexual relationships, and consent to a different sexual activity).

Analysis

The Initial regression of the full model excluding the generic gender variable had interesting results (see Appendix A, Figure 2). Most notably, the number of observations fell from the 100 schools included in the data set to only 41 complete observations. The two

variables that limited this number the most were SCORES and Fraternity Involvement. In this model, the SCORES variable was significant at 5%, with no other variables close to significance. In an effort to include more observations in the regression, the SCORES and Fraternity Involvement variables were removed.

Heteroskedasticity is also an expected problem. Schools with low reporting are not likely to have a lot of variation in their codes of conduct, for example. Schools with higher reporting or more Clery incidents could have a progressively greater variation in their codes of conduct. The potential for heteroskedasticity is also apparent in the graphical representation of the data distribution (see Appendix A, Figure 3). Based on the Breusch-Pagan test for heteroskedasticity, there is a less than 1% chance that the variance in the data is constant (see Appendix A, Figure 4). Based on this evidence, a robust model will be used.

The robust regression model without the SCORES and Fraternity Involvement variables showed more promising results than the initial model. The number of observations increased to 90, but the F value fell slightly. The use of more than twice as many data points adds to the practical, if not statistical, confidence to the model. Based on the F value, this model is significant at the 6% level. None of the location data is significant at the 30% level, nor is the Victim State variable. What remains are the Perpetrator Actions variable, significant at the 7% level, and the Green Dot variable, which is significant at the 1% level.

Using stepwise regression, this model was filtered down to only those variables significant at the 5% level. This leaves only the Green Dot and Perpetrator Actions variables, which are both significant at the 3% level. This streamlined model has the highest F value, at

4.44, which is also significant at the 2% level. This model has the greatest implications for this study.

Interpretation

It is now necessary to interpret the results of the heteroskedasticity-robust regression model, and describe how the regression coefficients relate to my hypotheses.

Explanatory Variables 1 and 2: Student Conditions

The scores variable, which combined standardized SAT and ACT data, was significant at the 5% level in the initial model. The coefficient was positive, which would seem to indicate that an increase in test scores would correlate with an increase in sexual assaults. This is contrary to my hypothesis. However, it is likely that this positive correlation is due to an increase in reported incidents, rather than an increase in real on-campus incidents. Based on the coefficient, an increase of 1 standard deviation from the mean would increase reported sexual assaults by .04%. However, this variable was limiting to the number of observations, and including more data in the study increases the quality of the results. Additional analysis also indicates a high degree of multicollinearity. In particular, the SCORES data is highly correlated with the Green Dot and Perpetrator actions data (see Appendix A, Figure 5). Since those two points had many more observations and were also significant in the reduced model, it makes more sense to interpret them rather than SCORES.

The fraternity data was not significant in any model, which indicates that fraternity involvement in itself does not influence Clery incidents.

Explanatory Variables 3 to 5: Location

None of the location variables were significant in any model. This indicates that, contrary to the literature review and popular opinion, the schools close to larger cities do not have more sexual assault incidents reported on their campuses.

Explanatory Variable 6: Green Dot Participation

Green Dot programs were highly significant in the model with the highest number of observations and the highest F value. As the inclusion of the Green Dot variable was a key contribution of this study, this has important implications. The Green Dot variable was strongly related to Incidence Rate, but it did not have the expected sign. This could have several interpretations. Since Incidence Rate is a reported variable, it is possible that the presence of a Green Dot program at a school is increasing the reporting of sexual assaults on that campus. This seems more reasonable than Green Dot programs causing an increase in actual sexual assault incidents. It is also possible that there is two-way causation; schools with a Green Dot program may have increased reporting of sexual assaults, and schools with more incidents may be more likely to adopt a Green Dot program. However, since the Clery data used for the Incidence Rate variable is known to be underreported, the former interpretation of Green Dot programs increasing reporting is more reasonable.

Explanatory Variables 7 to 9: Gender and Specific Actions

As discussed in the analysis section, the gender variable was omitted from the model.

Another notable finding is that the number of specifically mentioned Perpetrator Actions is statistically significant at the 3% level in the reduced model. As with the Green Dot variable, the coefficient is positive, which would appear to indicate an increase in sexual assault incidents. As before, this is more reasonably interpreted as an increase in reported incidents. An increase of 1 additional victim state leads to a 5% increase in reported Incidents. This indicates that the more specifically sexual assault actions are mentioned in a school's code of conduct, the more these incidents are reported.

The Victim States variable was not significant in any model. This may imply that discussion of consent is not having an effect on Incidence Rate. As discussing consent is one of the ways schools take action against sexual assault, this may be troubling for schools. What is important here is to note that since the Perpetrator Actions variable was significant, focus on the perpetrators may be a key to reducing sexual assaults. Green Dot programs also do not focus on the victims, but instead focus on how to get bystanders to intervene and prevent the perpetrator from continuing their action.

Conclusions

Policy Implications

Schools that wish to increase reporting and potentially decrease incidents have incentive to educate their students. One of the best ways to do this, according to this study, is to adopt a bystander intervention program such as Green Dot. It is also worth noting that focus on the victims, such as through the Gender and Victim States variables, does not influence reported sexual assaults in a statistically meaningful way. The significance of the Perpetrator

Actions variable indicates that schools that wish to increase awareness of sexual assaults should instead focus on the identification of perpetrators, and of what sexual assault is and what it is not. While developing a strict definition of sexual assault is as impractical as developing a code of conduct that covers all possible negative behaviors, exploring the idea of intentionality and what types of behaviors constitute sexual assault with students are influential to the reporting of sexual assaults and their future prevention.

Further Research

This study has much room for growth. The sample size used was only one hundred schools, and there are thousands in the United States alone. Using a larger sample, would benefit the integrity of the data, and it would be feasible to use nearly the entire population given enough time. The data are mostly complete and all accessible, and the procedure would remain the same. It would also be beneficial to find a more complete data source for the test scores and fraternity involvement of each school. This would allow more observations to be included in the regressions.

As seen from the R squared, the explanatory power of the model is low, even though it is significant based on the F value. It would be more complete if more explanatory variables were added to the study to account for the nuances which are present in individual sexual assault incidents. For example, analyzing a few schools in depth rather than as many schools as possible may provide different data. The ages of the victim and the perpetrator, their home life, and pornography consumption by the perpetrator are possible factors that could influence sexual assault incidence rate. These factors were mentioned in previous research, and they may

better describe sexual assault incidents, although these are more difficult to measure in a broad and consistent way.

Additionally, exploring the view of reporting sexual assaults is also a potential area of study. Not only do programs which encourage reporting influence this reported incidence rate, but more deeply, examining the process of reporting could yield a better explanation of the variation in reported incidents. Clery data is known to underreport, but that does not necessarily mean that school officials, confidential resources, Resident Assistants, and others are not encountering or failing to report incidents.

Appendix A: Data

Figure 1: Summary Table

Variable	Sample Size	Sample Mean	Sample Standard Deviation
Clery Incidents	100	2.673	3.709
Population	100	6704.89	9519.25
Clery Incidence Rate	100	.0828%	.1473%
SCORES	69	.6618	.5643
GreekLife	56	.04783	.1182
City	100	.5	.5025
Suburb	100	.23	.4245
Town	100	.18	.3877
Green Dot Program	100	.17	.3775
Definition: Generic Gender	84	.83	.1091
Definition: Perpetrator Actions	90	5.2	6.0127
Definition: Victim State	90	4.39	3.8507

The population for this table was taken from the University of Texas list of U.S. Colleges and Universities. From that list, 100 schools were randomly selected using the Research Randomizer to be included in the sample.

Figure 2: Regressions on Incidence Rate

Coefficients *t-statistics*

Significant at	
30%	*
10%	**
5%	***

Explanatory Variables	Initial Model	Higher N Model	Highest F Model
SCORES	**0.0013059** *2.99* ***		
Fraternity	**0.0012346** *0.65*		
City	**-0.0003703** *-0.48*	**-0.0001260** *-0.44*	
Suburb	**0.0002226** *0.28*	**0.0004939** *1.00*	
Town	**0.0003274** *0.35*	**-0.0002485** *-0.76*	
GreenDot	**0.0006396** *1.09* *	**0.0013878** *2.74* ***	**0.0011834** *2.38* ***
PerpetratorActions	**0.0000441** *1.12* *	**0.0000706** *1.91* **	**0.0000749** *2.30* ***
VictimState	**0.0000508** *0.71*	**0.0000403** *0.80*	
Observations	41	90	90
F Value	2.84	2.2	4.4
R Squared	0.542	0.2039	0.168

Figure 3: Data Distribution

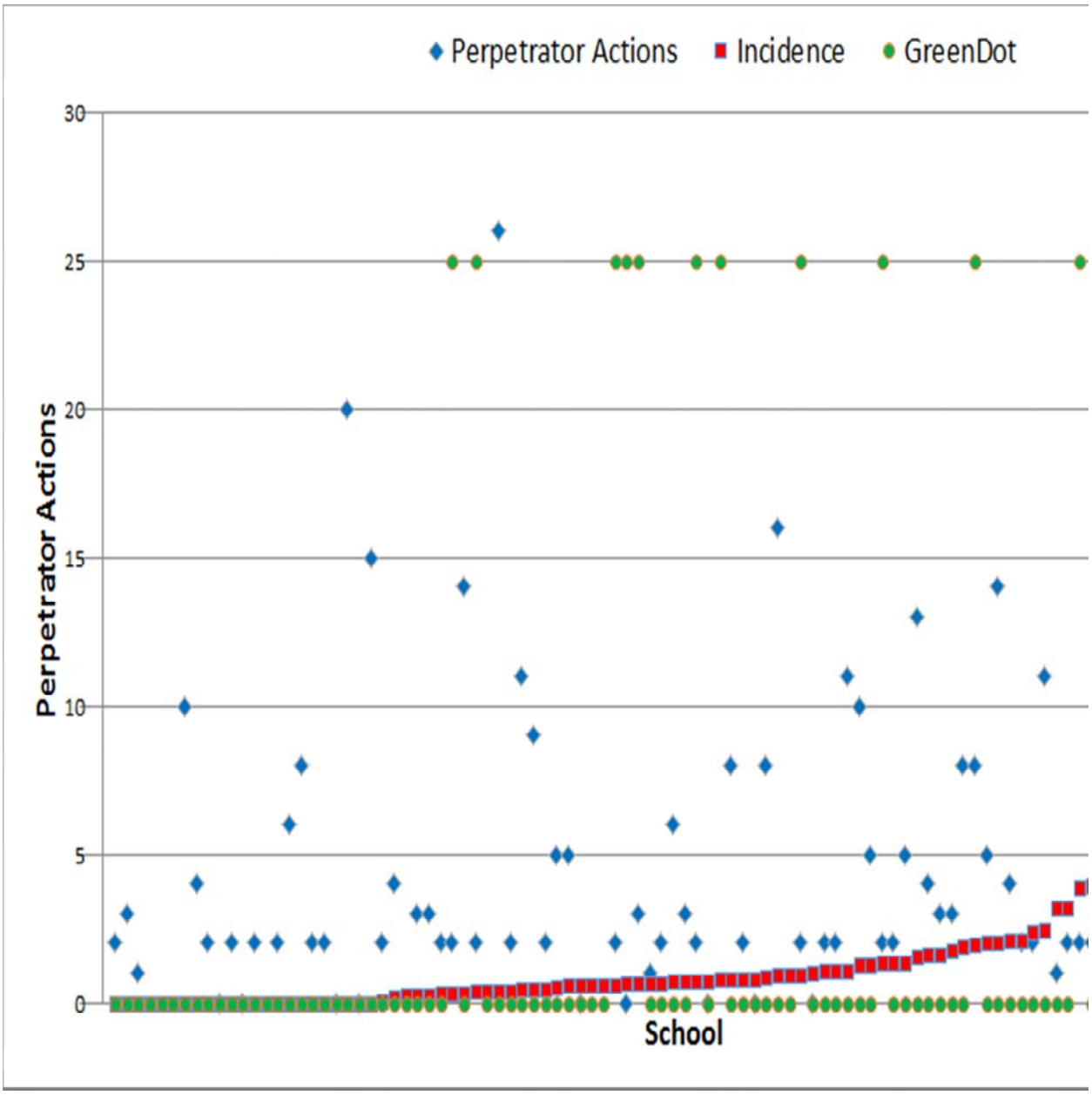

Figure 4: Test for Heteroskedasticity

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity

Ho: Constant variance

Variables: fitted values of Incidence

chi2(1) = 18.94

Prob > chi2 = 0.0000

Figure 5: Multicollinearity on GreenDot

	Significant at	
Coefficients		
t-statistics	30%	*
Coefficients	10%	**
t-statistics	5%	***

Explanatory Variables		
SCORES	**0.1916659**	
	2.05	***
PerpetratorActions	**-0.0198701**	
	-2.30	***
Observations	61	
F Value	3.63	
R Squared	0.1111	

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