

## DEVIANT BEHAVIORS IN PUBLIC SCHOOLS: A TEST OF THE EFFECTS OF DISCIPLINARY ACTIONS ON SCHOOL VIOLENCE

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### ABSTRACT

*This study examines the relationship between disciplinary actions taken by school officials against students and school violence. The outcome variable, which is school violence, is measured in terms of the number of violent and non-violent crimes committed by students in public schools. The key finding in this study is that the selected variables we included in this study are important correlates of school violence. Consistent with most prior studies, this study shows that most disciplinary actions contribute to an increase in the number of violent and non-violent crimes committed by students in public schools. This suggests that school officials should consider reducing the number of disciplinary actions against students because most of them do not reduce school violence and in fact have a counterproductive effect.*

**Keywords:** *School violence, disciplinary actions, violent crimes, non-violent crimes, deviance.*

### 1. DISCIPLINARY ACTIONS AND SCHOOL VIOLENCE

School violence is a multidimensional construct. It includes a variety of offenses. Generally, school violence is defined as “any deviant behavior that is socially and culturally unacceptable and legally sanctioned that occurs in schools” (Avdija & Jobi, 2014a, p. 17). In an attempt to reduce school violence, schools have adopted a variety of deterrence-based policies. Some of them include increasing security measures in schools (Perumean-Chaney & Sutton, 2013; Phaneuf, 2009; Avdija & Jobi, 2014b); others include disciplinary actions such as suspensions, detentions, and removals of students involved in deviant behaviors (Sharkey & Fenning, 2012; Gonzales, 2012; Unal & Cukur, 2011; Martinez, 2010; Nelson, Martella, & Galand, 1998). However, research shows that most of those deterrence-based policies did not produce a desirable outcome, which leaves room for further testing in this area. There is some evidence, however, that suggests

school violence has decreased in the United States after the implementation of the zero tolerance policies as both crime policies at the countrywide level and school policies in the course of implementation of the Gun-Free Schools Act (Casella, 2003; Sheley & Wright, 1998; National Center for Education Statistics, 1998). Nonetheless, the effects of these policies have produced mixed results in terms of preventing or reducing school violence, and the success of the zero-tolerance policies is debatable.

Despite their shady and debatable success, disciplinary actions as deterrence-based school policies are still applicable and widely used in most schools in the United States. In terms of their effect on school violence, research shows that *some types* of disciplinary actions (e.g., out of school suspensions) may reduce certain types of deviant behaviors (e.g., truancy) in schools. However, research also suggests that an increased frequency of use of out of school suspensions may in fact produce undesirable results

(Fannery, Frank, & Kato, 2012), contributing to an increase in the deviant behaviors. Taking the totality of scholarly evidence into account, one can conclude that there is no substantial support for disciplinary actions as the means of controlling deviant behaviors in schools. Even though prior research has produced mixed results in this area, it is safe to conclude that disciplinary actions generally do not have crime prevention properties in schools (Cassidy, 2005; Christle, Nelson, & Jolivet, 2004; Scott, Nelson, & Liaupsin, 2001; Skiba & Peterson, 1999).

Perhaps the biggest question to ask here is who are the students most frequently involved in deviant behaviors in schools? And against whom disciplinary actions are more likely to be used? One answer seems to cover both questions. Research shows that disciplinary actions in schools are disproportionately used against minority students (Dunbar & Villarrule, 2002; Skiba, Michael, Nardo, & Peterson, 2002; Fenning & Rose, 2007); thus, making them disproportionately represented in the administrative statistics. Additionally, research shows that school officials are more likely to apply disciplinary actions against students who come from broken families, students with learning disabilities, and those who are homeless (Skiba, 2000; Nichols, Ludwin, & Iadicola, 1999; Costenbader and Markson, 1998). This suggests that students with needs are more likely to be subjected to disciplinary actions taken by the school officials; the needs that schools cannot meet (Singer, 1996). Gender also plays a major role in terms of who gets subjected to disciplinary action. Research shows that disciplinary actions are more often administered against boys than girls in schools (Gregory, 1996). However, the disproportionate representation of the above mentioned groups corresponds with their disruptive behavior. In other words, they commit more offenses than other students; thus making them more visible in the official statistics (Skiba et al., 2002). Their representation in official statistics is not discriminatory; rather it is offense-based. It is noteworthy here that the purpose of the current research is not to address the racial or gender differences in terms of the applicability of disciplinary actions in schools. It is to address the effects of disciplinary actions on school violence.

## 2. THE PRESENT STUDY

The primary goal of this study is to answer the following research question: do disciplinary actions

taken by school officials against student involved in misconduct have an effect on the number of violent and non-violent crimes? The first objective of this study is to test the effects of disciplinary actions on violent crimes (e.g., possession of firearms on school property, possession of knives/sharp objects, and threats of attacks with weapons). The second objective is to test the effects of disciplinary actions on violent crimes committed without weapons (e.g., robberies, attacks, and threats of attack). The third objective is to test the effects of disciplinary actions on non-violent crimes (e.g., theft/larceny, distribution/possession of or use of drugs/alcohol at school, and vandalism on school property). Using Ordinary Least Square (OLS) regression analysis, we attempt to identify two types of disciplinary actions: 1) those that have a positive relationship with school violence and 2) those that have a negative relationship with school violence. In other words, in this study we attempt to identify which disciplinary actions will reduce school violence, and which disciplinary actions contribute to an increase in school violence.

## 3. METHODOLOGY

### 3.1. Independent Variables

The independent variables in this study are the disciplinary actions taken by school officials against students who were involved in student misconduct. Student misconduct in this study refers to student involvements in deviant behaviors such as insubordination, attacks/fights, distribution, possession, or use of alcohol/drugs, and possession of or use of weapons. In the final analysis of school violence in public schools, we selected and included eighteen different disciplinary actions and used them as predictors of school violence. Operationally, the predictors of school violence can be grouped into three main categories. The first group of variables deals with the number of *removals* of students from school for misconduct. The second group of variables deals with the number of *transfers* of students involved in student misconduct to other schools (i.e., transfers to specialized schools). The third group of variables deals with the number of *suspensions* from school for student misconduct for five or more days. In other words, the three types of disciplinary actions include removal from school, transfer to other schools, or suspensions from school. These disciplinary actions were taken against students who committed one or more of the following deviant acts:

1) possession of or use of firearms, 2) possession of or use of weapons other than firearms, 3) distribution or possession of illegal drugs, 4) distribution or possession of alcohol, 5) fights/attacks, and 6) insubordination. All independent variables were measured in continuous numbers as reported and recorded by the school officials.

### 3.2. Dependent Variables

#### 3.2.1 Measures of Violent and Non-Violent Crimes

The main outcome variable in this study is school violence. To measure school violence, we used three sub-groups of outcome variables: 1) violent crimes involving weapons or threat of use, 2) violent crimes without weapons, and 3) non-violent crimes. The violent crimes with weapon or threat of use include the number of incidents related to possession of firearms, the number of incidents related to possession of knives or sharp objects, and the number of threats of attacks with weapon. All these outcome variables were measured in continuous numbers as reported and recorded by the school officials. The violent crimes without weapons, on the other hand, include the number of robberies, the number of attacks, and the number of threats of attacks. These three variables were also measured in continuous numbers. The non-violent crimes in this study include the number of theft/larceny incidents, the number of cases involving the distribution, possession of or use of illegal drugs in schools, the number of cases involving the distribution, possession of or use of alcohol, and the number of incidents of vandalism on school property.

All dependent variables in this study are measured at the ratio level, with zero number of crimes being the baseline. Since the dependent variables (outcome variables) are non-dichotomous in nature, multiple regression analysis was deemed suitable to carry out the analysis to determine the amount of influence each predictor has on the outcome variables. Regression analysis allows us to predict the outcome while controlling for the effects of individual variables in the model.

## 4. THE DATA SOURCE

The analyses in this study are based on the data that were originally collected by the United States Department of Education. The data were released to the public by the Interuniversity Consortium for

Political and Social Research (ICPSR) in 2010. The analyses are based on a national sample of 2,724 public schools from cities and rural areas. Of the 2,724 total schools in the sample, 924 were high schools, 948 were middle schools, 715 were primary schools, and 137 were combined schools. In terms of school locations, the frequency analysis show that 697 schools in the sample were from cities, 1,046 schools were from urban fringe, 281 from towns, and 700 were from rural areas. The racial composition of school where the data came from includes 459 schools with less than five percent enrolled minority students, 729 schools with five to twenty percent enrolled minority students, 661 schools with twenty to fifty percent minority students, and 799 schools with fifty or more percent enrolled minority students. There were 76 schools that had missing data in terms of the racial composition of students.

## 5. RESULTS

The first step in the preliminary analysis was to determine the correlation between predictors. Ideally, the correlations between predictors should be low. A high correlation is typically an indicator of multicollinearity in the data, which is undesirable. We took two steps to determine whether or not the data violated the multicollinearity assumptions; namely, we ran the Pearson's correlation matrix, and Variance Inflation Factors (VIF).<sup>1</sup> The correlation matrix shows that none of the predictors exceeded the cut-off value of  $\geq .9$ , which is a correlation cut-off value point that holds problems with multicollinearity. In fact, most correlations between predictors were below .3, and the highest correlation did not exceed  $r = .5$ . This is some empirical evidence that supports the fact the data did not violate the multicollinearity assumptions. Also the VIF values in the collinearity diagnostics were within the normal range. They ranged from 1.009 to 3.602. Most VIF values were below 2.000, which is another piece of empirical evidence indicating there were no issues with multicollinearity (see Field, 2009; Pallant, 2011; for discussions on multicollinearity assumptions). After the diagnostic analyses were completed, we

<sup>1</sup> Due to space limitations, the correlation matrix and collinearity diagnostics tables were not included in this article. The correlation analysis and collinearity diagnostics were computed in the first phase of analysis, while we were determining the suitability of the data for the final analysis.

then computed the multivariate regressions to determine the effects of eighteen predictors on school violence.

The first objective of this study was to test the effects of disciplinary actions on violent crimes such as possession of firearms on school property, possession of knives/sharp objects, and threats of attacks with weapons. To address this objective, the results are presented in Table 1. First, the analyses show that the eighteen-variable model best explained the incidents involving the possession of knives/sharp objects by students,  $R^2 = .431$ ,  $F(18, 2705) = 113.85$ ,  $p < .001$ , followed by incidents involving possession of firearms,  $R^2 = .212$ ,  $F(18, 2705) = 40.48$ ,  $p < .001$ . This means that the eighteen-variable model explains 43% of the variation in the incidents involving the possession of knives/sharp objects, and about 21% of the variation in the firearms-related incidents that occur in public schools. The same model presented in Table 1 had less explanation power for the incidents that involve threats of attacks with weapons against students, explaining about 7% of the variation in such incidents. Second, the data in Table 1 show that the disciplinary actions that significantly contributed to an increase in the number of the firearms-related incidents and incidents related to possession of

knives/sharp objects in schools were 1) removals, 2) transfers, and/or 3) suspensions for firearms-related incidents, 4) suspensions for weapons use other than firearms, and 5) removals, or suspensions from school for attacks/fights. It is worth mentioning that suspensions for insubordination contributed to an increase in the number of firearms-related incidents only. Taken as a whole, this indicates that most statistically significant variables in the model had an undesirable effect on the number of violent crimes committed by students in schools. There were only three disciplinary actions that significantly contributed to a decrease in the number of firearms-related incidents in schools; namely removals for distribution or possession of alcohol in schools ( $b = -.095$ ,  $p < .01$ ), suspensions for distribution or possession of alcohol ( $b = -.022$ ,  $p < .01$ ), and removals for insubordination ( $b = -.005$ ,  $p < .05$ ). Furthermore, the data show that there were no statistically significant disciplinary actions that contributed to a decrease in the number of incidents involving possession of knives/sharp objects in schools. Third, of the six statistically significant variables that had an effect on the number of threats of attacks with weapons, only one of them contributed to a decrease in such crimes; namely removals for insubordination ( $b = -.033$ ,  $p < .001$ ).

**Table 1: Regression Analysis: Predicting the Number of Violent Crimes with Weapons**

Disciplinary Actions Variables	Possession of Firearms		Possession of Knife/Sharp		Threats of Attack with Weapon	
	b	SE	b	SE	b	SE
Removals for firearm use/possession	.661	.064***	.146	.158	.300	.182
Transfers for firearm use/possession	.562	.033***	.011	.082	-.039	.094
Suspensions for firearm use/possession	.017	.004***	.026	.009***	-.001	.010
Removals for weapon use	-.041	.025	.498	.061***	.112	.071
Transfers for weapon use	.013	.013	.634	.033***	.136	.038***
Suspensions for weapon use	.050	.009***	.415	.022***	.126	.026***
Removals for distrib. or possession of drugs	.006	.014	-.020	.033	-.022	.039
Transfers for distrib. or possession of drugs	.003	.005	.018	.011	-.009	.013
Suspensions for distrib. or posses. of drugs	.006	.004	.065	.011***	-.014	.013
Removals for distrib. of posses. of alcohol	-.095	.039**	-.017	.095	-.009	.109
Transfers for distrib. or posses. of alcohol	.026	.019	.086	.046	-.059	.053
Suspensions for distrib. or poss. of alcohol	-.022	.009**	.032	.021	-.005	.024
Removals for attacks/fights	.048	.008***	.067	.019***	.022	.022
Transfers for attacks/fights	.007	.004	.025	.011	.029	.013*

Suspensions for attacks/fights	.003	.001**	.012	.003***	.008	.003**
Removals for insubordination	-.005	.003*	-.013	.003	-.033	.008***
Transfers for insubordination	-.003	.002	.005	.006	.030	.006***
Suspensions for insubordination	.003	.001***	-.001	.001	-.001	.002
R <sup>2</sup>	.212		.431		.056	
F-value	F (18, 2705) =40.48		F (18, 2705) =113.85		F (18, 2705) =8.96	
p-value	p < .001		p < .001		p < .001	

2-tailed significance: \* p < .05; \*\* p < .01; \*\*\* p < .001

Note: Unstandardized coefficients and standard errors for each variable are presented.

The second objective of this study was to test the effects of disciplinary actions on violent crimes committed without weapons (e.g., robberies, attacks, and threats of attack). To address this objective, the results are presented in Table 2. First, the analyses show that the eighteen-variable model best explained the number of incidents involving the attacks without weapons, R<sup>2</sup> =.388, F(18, 2705) = 95.22, p <.001, followed by incidents involving threats of attacks without weapons, R<sup>2</sup> =.210, F(18, 2705) =39.98, p <.001. This means that the eighteen-variable model explained about 39% of the variation in the number of incidents of attacks without weapons, and 21% of the variation in the number of incidents involving

threats of attacks without weapons. This model did not have a high explanation power for explaining the variation in the number of incidents of robberies committed without weapons. Second, the data in Table 2 show that none of the disciplinary actions were statistically significant in reducing the number of robberies committed without weapons. Four variables, in fact, contributed to an increase in the number of robbery incidents; namely 1) transfers or 2) suspensions for weapons use, 3) transfers for distribution or possession of drugs, and 4) suspensions for distribution or possession of alcohol at school.

**Table 2: Regression Analysis: Predicting the Number of Violent Crimes without Weapons**

Disciplinary Actions Variables	Robberies Without Weapons		Attacks Without Weapons		Threats of Attack Without Weapons	
	b	SE	b	SE	b	SE
Removals for firearm use/possession	.123	.193	.054	1.413	-.1791	1.419
Transfers for firearm use/possession	-.029	.100	1.499	.731*	2.579	.734***
Suspensions for firearm use/possession	.019	.011	.116	.077	.007	.077
Removals for weapon use	.039	.075	1.730	.550***	2.419	.552***
Transfers for weapon use	.157	.040***	.799	.295**	.630	.296*
Suspensions for weapon use	.145	.027***	.512	.198**	.551	.199**
Removals for distrib. or posses. of drugs	-.047	.041	-.948	.299***	-.821	.301**
Transfers for distrib. or posses. of drugs	.034	.014**	.712	.111***	.153	.101
Suspensions for distrib. or posses. of drugs	-.004	.013	.041	.098	.332	.098***
Removals for distrib. of posses. of alcohol	-.001	.116	2.094	.849*	3.815	.853***
Transfers for distrib. or posses. of alcohol	-.075	.056	-.478	.412	.359	.413
Suspensions for distrib. or poss. of alcohol	.059	.026*	-.314	.188	-.528	.189**
Removals for attacks/fights	.029	.023	-.050	.170	-.147	.171

Transfers for attacks/fights	.009	.013	.581	.097***	.258	.094**
Suspensions for attacks/fights	.005	.003	.682	.024***	.357	.024***
Removals for insubordination	-.005	.008	-.104	.059	-.274	.059***
Transfers for insubordination	-.002	.007	-.005	.050	.206	.051***
Suspensions for insubordination	.003	.002	-.006	.013	.030	.013*
R <sup>2</sup>	.048		.388		.210	
F-value	F (18, 2705) =7.60		F (18, 2705) =95.22		F (18, 2705) =39.98	
p-value	p < .001		p < .001		p < .001	

2-tailed significance: \* p < .05; \*\* p < .01; \*\*\* p < .001

Note: Unstandardized coefficients and standard errors for each variable are presented

Furthermore, the data in Table 2 show that only one variable contributed to a reduction of the number of attacks without weapons; namely the removals for distribution or possession of drugs (b = -.948, p < .001). Regarding the number of threats of attacks without weapons, the data show that there were three types of disciplinary actions that significantly reduced such crimes in school property; namely removals for distribution or possession of drugs (b = -.821, p < .01), suspensions for distribution or possession of alcohol (b = -.528, p < .01), and removals for insubordination (b = -.274, p < .001). It is noteworthy that the number of suspensions for distribution of alcohol, on one hand, contributed to an increase in the number of robberies, on the other hand, suspensions contributed to a decrease in the number of threats of attacks.

The third objective of this study was to test the effects of disciplinary actions on non-violent crimes (e.g., theft/larceny, distribution/possession of or use of drugs/alcohol at school, and vandalism on school property). The analyses in Table 3 show that the eighteen-variable model best explained the number of incidents related to distribution, possession or use of drugs, explaining 61% of the variation [R<sup>2</sup> =.610, F (18, 2705) =235.42, p <.001], followed by incidents related to distribution, possession, or use of alcohol in school, explaining 50% of the variation [R<sup>2</sup> =.501, F(18, 2705) =150.55, p <.001]. The same eighteen-variable model explained about 15% of the variation

in the number of theft/larceny cases, and 13% of the variation in the number of vandalism cases committed on school property. Second, the analyses show that eight variables were statistically significant in predicting the number of theft/larceny incidents; none of which contributed to a decrease of such offenses. Likewise, none of the statistically significant variables contributed to a decrease in the number of vandalism incidents committed on school property either, which is an unexpected finding. Regarding the number of incidents related to the distribution or possession/use of drugs at school, the data in Table 3 show that only one type of disciplinary actions contributed to a decrease in such offenses; namely the number of removals for distribution or possession/use of alcohol at school (b = -.484, p < .01). Furthermore, there were eleven types of disciplinary actions taken by the school officials that significantly contributed to an increase in drug-related offenses committed in schools – another unexpected finding. Along this line, the data show that only two of the eleven statistically significant variables contributed to a decrease in alcohol-related offenses; namely removals for attacks/fights (b = .059, p < .001) and suspensions for insubordination (b = .003, p < .05). Overall, the analyses in this study show that most disciplinary actions taken by school officials contribute to an increase in the number of non-violent crimes committed in schools.

**Table 3: Regression Analysis: Predicting the Number of Non-Violent Crimes**

Disciplinary Actions Variables	Theft/Larceny		Distribution, Possession or Use of Drugs		Distribution, Possession or Use of Alcohol		Vandalism	
	b	SE	b	SE	b	SE	b	SE

Removals for firearm use/possession	-.233	.699	.361	.325	-.245	.165	.072	.458
Transfers for firearm use/possession	.478	.362	-.132	.168	-.067	.086	.091	.237
Suspensions for firearm use/possession	.155	.038***	.049	.018**	.013	.009	.139	.025***
Removals for weapon use	-.198	.272	.422	.126***	.157	.064*	.810	.178***
Transfers for weapon use	.451	.146***	.189	.068**	.064	.035	.279	.096***
Suspensions for weapon use	.113	.098	.068	.046	.068	.023***	.353	.064***
Removals for distrib. or posses. of drugs	.526	.148***	.768	.069***	.068	.035*	.020	.097
Transfers for distrib. or posses. of drugs	.151	.050**	.708	.023***	.028	.012**	.098	.033***
Suspensions for distribution or possession/use of drugs	.288	.049***	.664	.023***	.058	.011***	.175	.032***
Removals for distribution of possession/use of alcohol	.093	.420	-.484	.195**	.301	.099***	.240	.275
Transfers for distribution or possession/use of alcohol	.792	.204***	.324	.095***	.508	.048***	.422	.133***
Suspensions for distribution or possession/use of alcohol	.641	.093***	.288	.043***	.795	.022***	-.010	.061
Removals for attacks/fights	.024	.084	-.074	.039	-.059	.020***	.074	.055
Transfers for attacks/fights	.079	.048	.006	.022	.031	.011**	.072	.031*
Suspensions for attacks/fights	.027	.012*	.012	.005*	-.003	.003	.022	.008***
Removals for insubordination	-.005	.029	-.018	.013	.006	.007	-.011	.019
Transfers for insubordination	-.005	.025	.024	.012*	-.002	.006	.009	.016
Suspensions for insubordination	.011	.006	-.001	.003	-.003	.001*	.005	.004
R <sup>2</sup>	.146		.610		.501		.130	
F-value	F (18, 2705) =25.59		F (18, 2705) =235.42		F (18, 2705) =150.55		F (18, 2705) =23.55	
p-value	p < .001		p < .001		p < .001		p < .001	

2-tailed significance: \* p < .05; \*\* p < .01; \*\*\* p < .001

Note: Unstandardized coefficients and standard errors for each variable are presented

## 6. DISCUSSION

By and large, this study shows some unexpected findings, to say the least. Not many disciplinary actions taken by the school officials produced a desirable outcome on school violence. A desirable outcome, in this case, is reducing school violence through disciplinary actions taken against students who were involved in deviant behaviors. In fact, most of the statistically significant variables in this study had an inverse effect on school violence – contributing to an increase in the number of crimes committed by students. The eighteen-predictor model we used in this study explained a significantly large portion of the variation on school violence. However, it is noteworthy that the explanation power (the R-squared) varied by the type of crime. The R-squared

ranged from 5% to 61% for certain types of offenses. The model we used had the highest R-squares for non-violent crimes (i.e., drug-related offenses explaining 61% and alcohol-related offenses explaining 50% of the variation), which means it is more suitable for explaining non-violent crimes than violent crimes. Regarding the violent crimes, this eighteen-predictor model best explained the number of incidents related to possession of knives/sharp objects in school, explaining 43% of the variation in such offenses, and attacks without weapons, explaining about 39% of the variation.

In this study, we looked at three types of outcome variables to measure school violence. The first group involved violent crimes committed with weapons (e.g., possession of firearms, knives/sharp objects,

and threats of attacks with weapons). Prior research on school violence shows that disciplinary actions generally do not have crime prevention properties (Cassidy, 2005; Christle, Nelson, & Jolivet, 2004; Scott, Nelson, & Liaupsin, 2001). The current study partially contradicts the research findings of prior studies. The results of this study indicate that there were only three disciplinary actions that significantly contributed to a decrease in the number of possession of firearm-related incidents in schools; namely removals for distribution or possession of alcohol in schools, suspensions for distribution or possession of alcohol, and removals for insubordination. All other statistically significant variables contributed to an increase in the number of firearm-related incidents in school. On the other hand, of the six statistically significant variables that had an effect on the number of threats of attacks with weapons, only one of them contributed to a decrease in such crimes; namely removals for insubordination. Even more alarming, none of the disciplinary actions that were statistically significant contributed to a decrease in the number of incidents involving possession of knives/sharp objects in schools. This shows that, although disciplinary actions account for a large portion of the variation in the violent crimes, they do not work that well in reducing violent crimes. In fact, as a crime prevention effort, it would be wise to reduce the number of and types of disciplinary actions taken against students for deviant behavior and replace them with some other crime prevention measures (e.g., improving security measures in schools, etc.).

The second group of dependent variables we used to measure school violence were measures of violent crimes committed without weapons (e.g., robberies, attacks, and threats of attack without weapons). The analyses in this study show that none of the disciplinary actions were statistically significant in reducing the number of robberies committed without weapons at school. All statistically significant variables contributed to an increase in the number of robberies instead. Almost similar results the disciplinary actions produced with the incidents involving attacks or threats of attack without weapons committed by students. Only one variable contributed to a decrease in the number of incidents of attacks; namely removals for drug-related offenses. Although most disciplinary actions contributed to an increase in the number of threats of attacks, it is noteworthy that there were three statistically significant variables that reduced such incidents. Removals for drug-related offenses, suspensions for alcohol-related offenses, and

removals for insubordination contributed to a statistically significant decrease in the number of threats of attack by students in schools.

The third group of dependent variables we used to measure school violence were measures of non-violent crimes (e.g., theft/larceny, drug and alcohol-related offenses, and vandalism). This study shows that eight variables were statistically significant in predicting the number of theft/larceny incidents. However, none of them contributed to a decrease of such crimes. Regarding the number of drug and alcohol-related crimes, the findings of this study show that only two predictors had a reduction effect on such crimes. Removals for distribution, possession or use of alcohol contributed to a decrease in drug-related offenses. Furthermore, removals for fights/attacks and suspensions for insubordination decreased the number of alcohol-related offenses also. One of the most interesting finding in this study is the effect of disciplinary actions on the number of vandalism offenses. This study shows that none of the nine statistically significant disciplinary actions contributed to a decrease in the number of vandalism offenses committed on school property. This means that any disciplinary actions taken against students who have committed vandalism on school property would only make this type of offense reoccur more often. Overall, our quantitative findings seem to agree with the prior studies on school violence. Prior studies show that using coercive disciplinary techniques increases the delinquent involvements in schools (Unal & Cukur, 2011; Sharkey & Fenning, 2012). School officials who believe that increasing the number of disciplinary actions against student involved in misconduct will reduce such deviant behaviors in schools will not find much support from the results of this research study.

### 6.1. Dual Peculiarity Effect

It is remarkable that two predictors displayed an eccentricity effect in the model. Suspensions for distribution or possession of alcohol, on one hand, contributed to an increase in the number of robberies, on the other hand, they contributed to a decrease on the number of threats of attacks. Likewise, the number of removals for distribution or possession of alcohol contributed to a decrease in the number of drug-related offenses. On the other hand, those removals contributed to an increase in the number of alcohol-related offenses, controlling for the effects of other variables in the model.



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