# Are Certain Schools More Prone to Suicide Ideation?

Rami Benbenishty[a], Ph.D., Ron Avi Astor[b], Ph.D., Ilan Roziner[c], Ph.D.

Affiliations:

[a]  Louis and Gabi Weisfeld School of Social Work, Bar Ilan University, Israel.

[b] Suzzane Dworak-Peck School of Social Work University of Southern California and [c]

Sackler School of Medicine, Tel Aviv University, Israel.

**Abstract**

**Objectives:** This study assessed between-school variation in suicide ideation (SI) and estimated the contribution of school-level attributes, student-level characteristics, and two cross-level interactions (school by student) to student SI.

**Study Design:** A secondary analysis of the California Healthy Kids Survey in two large and representative samples of California high schools and students: 2009–2011 and 2011–2013.This is a population sample of all public high school students (grades 9 and 11) in California. Analyses were first conducted on surveys administered in the 2011–2013 academic years to 790 schools with 179,457 students and replicated on surveys administered in 2009–2011 to 860 schools with 216,587 students.

**Results:** School-level SI rates ranged between 4% and 67%, with a median of 19.3% and mean of 20.0% ($SD = 5.7$). Student SI was significantly explained by student-level characteristics ($R^2 = .20$) and to an even larger extent by school-level attributes ($R^2 = .55$). Student-level characteristic predictive of SI included, gender, ethnic and racial affiliation, victimization, and perceptions of school climate. In both samples, school size and average level of academic achievement were not associated with rates of school SI. Schools with a larger number of girls and higher levels of victimization had higher rates of SI in both samples. The hypotheses regarding cross-level interactions were not confirmed.

**Conclusions:** Differences among schools in student SI are meaningful. The findings suggest an emphasis on the role of schools in prevention programs, public health campaigns to reduce suicide, multilevel research, and theory development.

## Introduction

A recent report[1] emphasized the public health implications of youth suicide and highlighted strategies to improve research to help prevention. The present study addressed some of the report's recommendations. Suicide is a primary cause of death among adolescents and young adults around the world.[2-5] Suicide mortality rates among youth in the United States increase with age, from 0.7 per 100,000 among children aged 5–14 years old to 7.5 per 100,000 among adolescents aged 15–19 years old.[6,7] With regards to attempts, in 2013, 2.7 per 100 adolescents in grades 9–12 reported making suicide attempts that required medical attention in the prior 12 months.[8] A precursor to suicide attempts are thoughts about committing suicide. Suicide ideation (SI) increases dramatically from the age of 12, increasing steeply and consistently until the age of 18 and reaching a lifetime prevalence rate of more than 16%. According to the Center for Disease Control and Prevention's 2013 Youth Risk Behavior Surveillance (YRBS), 18% of students nationwide had seriously considered attempting suicide during the previous 12 months, 14.9% made a plan, 7.7% made an attempt, and 2.6% reported an injurious attempt.[9] Rates among girls were twice as high as among boys; higher among Hispanics compared to whites and blacks; and lower among 12th graders compared to others.[9]

Most current theories focus on individual or intrapersonal psychological factors, interpersonal interactions such as social support, and wider societal factors. Many of these theories address the interaction between individual intrapersonal and interpersonal factors and the context and environment, bringing together individual risk (e.g., preexisting mental health problems) and the social and environmental context in which an individual is embedded (e.g., a supportive environment or prevailing moral norms against suicide).[10-12]

The present study focuses on suicide ideation among high school students. Schools are an important context for adolescents and directly relevant to their mental health and suicide-related ideation and behaviors[13]. A positive school climate may provide a sense of safety and security to students in those schools, shielding them from community insecurity, providing adult and peer social support, moderating the effects of mental health difficulties such as depressive symptoms, and providing meaningful protective factors such as engagement and belongingness.[14-15] Conversely, experiencing school violence victimization, including discrimination-based victimization (such as against sexual minorities), on school grounds or cyberbullying by school peers is associated with suicidal thinking and behaviors among U.S. adolescents.[16-19]

The focus on SI is important and relevant for public health suicide prevention efforts. Self-reports of SI are more accessible and prevalent and are less stigmatizing than other suicide-related behaviors, such as making plans and attempts. Clearly, ideation is different than suicide attempts and deaths, and only a fraction of students who think about committing suicide would proceed to attempt, and fewer would be 'successful" in these attempts. Nonetheless, ideation is strongly associated with more extreme behaviors. In the YRBS, SI was associated strongly with plans ($r = .67$), attempts ($r = .52$), and injurious suicide attempts ($r = .58$),[7] making SI an important marker in prevention efforts that address the whole student population. Furthermore, individuals with SI have many shared characteristics with those who attempt suicide.[20] As such, SI may serve as an indicator of other suicide-related behaviors, such as suicide attempts, that are even of more concern.

**Purposes and Objectives**

Despite the importance of school experiences for adolescents, only a few studies have attempted to conceptualize and empirically investigate the relationships between

school-level context characteristics and SI. Although most of these studies examined how students' individual characteristics (e.g., sexual orientation,[21] military connectedness[22]) and their school experiences (e.g., personal victimization[18]) are associated with their SI, only a handful of studies used multilevel analysis to examine how the emerging qualities of the school (e.g., how many lesbian, gay, bisexual, transgender, or questioning [LGBTQ] students are in school[23]) are associated with individual student SI. As Little et al.[1] noted recently, overlooking the role of the school context in this area is a serious limitation because previous research has shown that students are influenced not only by their own experiences (e.g., personal victimization), but also by their exposure to other aspects of the school environment (e.g., witnessing risky peer behaviors, the presence of other students with a similar sexual orientation).[23,24]

Findings from the few studies that explored multilevel relationships between school experiences and student SI were inconsistent in their estimates of the contribution of the school environment to individual student SI.[15] These few multilevel studies had significant limitations: They were based on relatively small samples of schools, were not representative of large regions, and did not use replication to validate model estimates. For instance, Miller [16] studied 143 students who were admitted to a partial hospitalization program, and while a longitudinal study in the West of Scotland[15] sampled close to 1700, only 43 schools were sampled, making the estimate of school effects severely underpowered.

Furthermore, prior studies on SI have not examined cross-level interactions; that is, the possibility that the relationship between SI and an individual characteristic is moderated by the school's environmental characteristics. This is a serious limitation, because it is possible that certain school characteristics either enhance or buffer the influence of individual characteristics. These issues may have important practical and

policy implications, suggesting strategies to identify school contexts with many vulnerable students and school improvement foci that could reduce students' vulnerability to suicide.

In the present context we examined two hypotheses regarding cross-level interactions. We should note that given the paucity of research on this topic, these are exploratory hypotheses. First, we wanted to examine the possibility that there is a cross-level interaction between school-level victimization and student-level victimization, such that when students who are victimized in schools with lower levels of victimization tend to have more SI compared with students who are victimized in schools that have higher levels of victimization. Students in the former schools may feel more isolated compared with students who are victimized in school, but so are many of their peers. The second hypothesis was that student-level victimization is associated with SI more in schools with low-levels of teacher support compared with students in other schools in which staff are perceived as providing more support, hence moderating the effects of student victimization.

In summary, in contrast to previous studies, the present study was based on two very large and representative samples of high schools in California, employed a multilevel conceptualization and analysis, and investigated the contribution of three factors to explaining variance in student SI: school-level attributes, student-level characteristics, and cross-level interactions (school by student).

## Methods

**Data**

The data for this study came from two sources: the California Healthy Kids Survey (CHKS), conducted by WestEd[25] for the California Department of Education (CDE), and publicly available school-level data from the CDE.

The CHKS is a survey administered biannually by WestEd to 5th-, 7th-, 9th-, and 11th-grade students. The survey is conducted as a census among all public school districts, schools, and students in the relevant grades. Most districts are surveyed every other academic year and thus each 2-year wave provides a representative sample of the state of California. Prior statewide studies using this database reported that approximately 85% of school districts in California participate.[26] A study using CHKS data from a consortium of several school districts in the Southern California region reported an 87% student-level response rate.[27]

The present analyses focused on high school students (grades 9 and 11). Analyses were first conducted on surveys administered in the 2011–2013 academic years to 790 schools with 179,457 (52.0%) 9th graders and 165,746 (48.0%) 11th graders, then replicated with surveys administered in 2009–2011 academic years to 860 schools with 216,587 (46.7%) 9th graders and 189,726 (53.3%) 11th graders. These are two separate population samples with separate groups of students in each sample.

For school attributes, we used publicly available data from the CDE. Specifically, we used data on school enrollment demographics including school size; proportions of students who are black or African American, Asian, Hispanic, or white; and the proportion of students who qualify for free or reduced-price meals. The CDE also provides data on the Academic Performance Index, California's state-level school academic accountability measure.

This secondary data analysis was reviewed by the institutional review board of the second author's university and deemed exempt.

**Dependent Variable**

Similar to other studies (e.g., YRBS[9]), students were asked: "During the past 12 months, did you ever seriously consider suicide?" Positive answers were coded as 1 and negative as 0.

**Student-Level Independent Variables**

This is a secondary analysis of existing data. We used student-level variables that were present in the CHKS surveys. The selection of these predictors was based on previous studies on the effects of school context on student mental health and risk behaviors[13, 15,16]. Internal consistencies are report per 2011-2013 wave, as they are almost identical in the two waves.

Demographics included gender (1 = *male*, 0 = *female*), grade (1 = *9th grade*, 0 = *11th grade*), and race and ethnicity (1 = *African American or black, Asian, Hispanic, or other*, 0 = *white*).

School climate was assessed with two constructs. School belongingness was computed as the mean of 5 items, such as "I feel close to people at this school" and "I feel like I am part of this school" (alpha = .83). Adult support in school was computed as the mean of 6 items, each starting with "At my school, there is a teacher or some other adult who…" and continuing, for example, with "really cares about me" and "always wants me to do my best" (alpha = .89). All items used a 5-point response scale (1 = *strongly disagree* to 5 = *strongly agree*).

Victimization and involvement in violence was assessed by the following five indexes: (a) moderate victimization (e.g., frequency during the prior 12 months, at school, of having been "pushed, shoved, slapped, hit or kicked by someone who wasn't just kidding around" or "made fun of because of your looks or the way you talk" (alpha = .78); these 8 items were measured on a scale of 1 = *0 times* to 4 = *4 or more times*); (b) severe victimization as measured with 3 items (e.g., "participated in a physical fight") using the same scale (alpha = .59); (c) discrimination-based bullying as measured with 5 items accompanied by the same scale (e.g., "harassed or bullied because of your race, ethnicity, or national origin") (alpha = .75); (d) weapon involvement as assessed by 4 items with the same scale (e.g., "threatened or injured with a weapon such as a gun, knife, or club") (alpha = .75); and (e) gang membership as assessed by a yes-or-no answer to the question "Do you consider yourself a member of a gang?"

**School-Level Independent Variables**

Some school-level attributes were aggregated from student-level data gathered as part of the survey. In addition, ethnicity (defined as the proportion of each ethnic and racial group in the school), school enrollment, proportion of students eligible for free or reduced-price lunch, and Academic Performance Index were extracted from CDE school-level databases.

**Statistical Methods**

We conducted multilevel analyses with students nested within schools. It is common to use ICC(1) to examine intra-class correlations. This measure, however, is sensitive to cluster size and tends to produce extremely low assessments when cluster sizes are relatively large. Because our average cluster size was unusually large with more than 400 students per school, we followed Bliese's recommendation and measured between-

school variability with the reliability of means index ICC(2) [28]. ICC(2) is customarily interpreted in a way similar to Cronbach's alpha, with .60 being the lower boundary of reliability. After establishing sufficient between-schools variability to warrant multilevel analyses, we fitted two-level hierarchical models using Mplus version 7.31[29]. There were some missing values in the data, with minimum covariance coverage of .95 in the 2011-2013 and .93 in the 2009-2011 student-level data. We used MLF estimator, which allows for maximum likelihood estimation with robust standard errors and chi-square calculation in the presence of missing values. Student-level variables were centered around the school means, and the school-level variables were grand-mean centered to facilitate model estimation.

At the first step, we tested the model with the slopes between student-level variables and SI fixed (not allowed to vary randomly across groups). Next, we allowed the slopes to vary randomly and tested the significance of this variation. For those slopes that were found to vary significantly across groups, we attempted to find predictors of this variation, that is, we examined our hypotheses regarding cross-level interactions between school-level and student-level variables in predicting SI.

**Results**

To test our hypothesis that schools differ in their rates of student SI, we examined the distribution of school-level SI. In school years 2011–2013, school-level SI rates ranged between 4% and 67% (upper quartile = 22%, upper decile = 27%), with a median of 19.3% and mean of 20.0% ($SD = 5.7$). ICC(2) was substantial (.68), indicating that proportions of students reporting SI differed considerably across the schools in this large sample. Similar results were obtained for school years 2009–2011 (Tables 1 and 2).

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The results of the multilevel analysis (models with random intercepts and fixed slopes, Tables 3 and 4) indicate that student SI is significantly explained by student-level characteristics ($R^2 = .20$) and SI aggregated to the school level is explained to an even larger extent by school-level attributes ($R^2 = .55$). As expected, at the individual level, gender had a strong effect, with girls having much higher chances of expressing SI than boys ($OR = 0.48$). Ethnic and racial affiliation was also relevant: African American or black students had a lower SI rate ($OR = 0.86$), whereas Asians had a higher rate ($OR = 1.13$). The highest rate of SI was reported by students who identified as other in terms of race and ethnicity ($OR = 1.20$). Experiences in school were also predictive of SI. Victimization of a moderate type had a strong relationship with SI ($OR = 2.12$). Victimization based on discrimination ($OR = 1.47$) and gang involvement ($OR = 1.42$) were also predictive of student SI. Students' school climate perceptions were also associated with their SI. Feelings of belonging to the school ($OR = 0.76$) and adult support ($OR = 0.83$) were associated with lower rates of SI. Highly similar patterns were observed in the replication sample.

With regard to school-level attributes effects, it is first important to note that some of the findings in the 2011–2013 sample were replicated in the 2009–2011, yet others were not. In both samples, school size and average level of academic achievement were not associated with rates of school SI. Several school-level attributes explained between-school variance in both samples. Similar to student-level findings, schools with a larger number of girls had higher SI ($b = -.31$) and schools with higher levels of moderate ($b = .30$) and discrimination-based ($b = .35$) victimization had higher rates of SI in 2011–2013. Poverty (as assessed by percentage of students eligible for free or reduced-price lunch), on the other hand, was associated with SI only in the 2009–2011 sample.

Although students affiliated with gangs had higher SI, schools with more gang members did not have higher rates of SI. Similarly, although individuals who felt supported by adults in school and that they belonged to the school were less prone to report SI, schools that had lower levels of adult support and school belongingness did not have higher rates of SI.

When our cross-level hypotheses were tested, they were not supported in either data collection wave. In both samples, although many of the slopes had significant between-school variability, and some cross-level significant coefficients were found, none of these interactions supported our hypotheses.

## Discussion

Findings indicate that about 20% of California high school students report SI. This should be considered a public health priority for California, the most populous state in the nation. The findings clearly show, perhaps for the first time, the large variations among schools in their rates of student SI. Rates ranged between 4% and 67% of students in each school. This suggests that the identification and intensification of supports, programs and resources within high SI schools in California is possible. Furthermore, in addition to the expected contributions of individual-level factors to SI, the school-level factors explained more than twice of the SI explained variability. This set of findings has important practical and theoretical implications.

In accordance with the most current recommendations,[1] the findings support a public health approach to SI such that prevention and intervention efforts may be better directed and prioritized to high-risk schools, rather than trying to focus efforts to identify high-risk students across all schools. Few, if any statewide suicide reduction use such an approach. Further, the high levels of moderate, severe, and discrimination-based

victimization in these high-risk schools suggest that SI prevention may be more effective if integrated with school-level bullying and discrimination reduction programs.

Second, it is important to note that the composition of individual demographic characteristics within each school may matter greatly. In this inquiry school-level variables associated with student SI were aggregates of student-level attributes associated with SI (e.g., victimization and school climate).  The composition of student demographic characteristics of the school matter above and beyond the individual characteristics of the students. School characteristics that were not aggregates of student-level characteristics (such as school size and percentage of students eligible for reduced-price and free lunch), we did not identify any such school-level factors that could explain SI.

This study suggests it is possible that demographic proportionality and composition in schools influence SI. Our findings suggest that school-level effects are not just a mere aggregation of student-level risk factors. For example, although students who were gang affiliated had higher levels of SI, schools with more gang-affiliated students did not have higher rates of SI. The same is true for students' school climate perceptions; although individual students who did not feel supported at school or that they belonged to school reported more SI, schools with a less positive school climate did not show higher school rates of SI. Such differences between the effects of individual student perceptions and school-level aggregates may reflect the possibility that some mechanisms leading to SI are related to subjective personal perspective, whereas others are also associated with a social context shared by many other students. For example, being an LGBTQ student and studying in a school with either few or many other LGBTQ students may be two different and additive factors that influence a student's SI. Future qualitative and quantitative studies should examine more carefully how the student level aggregated characteristics in a school may influence how SI functions in each school.  Knowing that schools vary by SI and that

this variation is largely explained by the characteristics of students in that school is important from policy and theory perspectives.

This calls for school-wide efforts to change school climate of safety, in addition to addressing the circumstances of individual students who are bullied by their peers. Moreover, such attempts to change the whole-school climate may also be helpful in addressing the needs of vulnerable individuals such as military-connected,[31] refugee, and LGBTQ students.[32] Changes in school climate may help reduce the vulnerability of these groups of students.

In general, the student-level factors in this study predicting SI are similar to findings in the literature. As found in many prior SI studies, individual student-level findings indicated that female students were much more prone to SI compared to boys.[16] Experiencing bullying and victimization at school, especially discrimination-based victimization, was also associated with SI. This is in line with many studies across the world that found associations between SI and victimization, including experiences of bullying, physical violence, and discrimination-based victimization targeting racial and sexual minorities.[17-20] Finally, the negative association between student-level school climate perceptions and SI is supported by many studies that identified positive school climate as a protective factor associated with better mental health outcomes.[14,32,33]

This study did not find consistent cross-level interactions. We could not identify school-level characteristics that moderated the effects of student-level characteristics. For instance, in schools with higher levels of teacher support, victimized students expressed the same levels of SI as schools with lower teacher support.

The findings of this study need to be examined in light of its limitations. The generalizability to other states is not known. Our secondary analysis could not test

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important constructs that are relevant to the research questions (e.g., availability of school-level resources) because they were not included in the instrument nor in other existing databases.

**Conclusions**

Little and associates[1] identified several gaps in practice, theory, and research. The current study suggests ways to address some of these challenges. First, to overcome some of the difficulties they noted associated with linking individual-level information on suicide attempts, the present study suggests that anonymous student surveys focusing on the proxy of self-report on SI can identify schools that have more vulnerable students and help prioritize prevention efforts among schools.

The study also exemplifies how such school-based surveys and multilevel analyses can contribute to research and theory building. An important issue for future studies is to identify whether certain proportions of students have a particular characteristic (e.g., a traumatic background) that may become a tipping point that influences levels of SI in the school. Future studies should examine whether the availability of staff expertise, counseling services, and other school-level resources may independently contribute to reducing rates of student SI in the school. Perhaps school resources, such as an experienced support staff, may be more successful in moderating the risks of highly vulnerable students.

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Table 1. Distribution of Student Characteristics in Two Samples

| Characteristic (measurement scale) | 2011–2013 (N = 345,203) | | | 2009–2011 (N = 406,313) | | |
|---|---|---|---|---|---|---|
| | Mean (SD) | $F^a$ | ICC(2) | Mean (SD) | $F^a$ | ICC(2) |
| African American or black (0,1) | 0.03 (0.17) | 19.59 | 0.95 | 0.04 (0.20) | 24.83 | 0.96 |
| Asian (0,1) | 0.11 (0.31) | 93.27 | 0.99 | 0.13 (0.34) | 128.25 | 0.99 |
| Hispanic (0,1) | 0.49 (0.50) | 131.09 | 0.99 | 0.45 (0.50) | 164.01 | 0.99 |
| Other race and ethnicity (0,1) | 0.24 (0.43) | 9.32 | 0.89 | 0.11 (0.31) | 24.51 | 0.96 |
| Male gender (0,1) | 0.48 (0.50) | 2.33 | 0.57 | 0.47 (0.50) | 2.20 | 0.55 |
| Grade 9 (0,1) | 0.52 (0.50) | 15.35 | 0.93 | 0.53 (0.50) | 20.01 | 0.95 |
| School belonging (1-5) | 3.52 (0.85) | 25.86 | 0.96 | 3.51 (0.85) | 25.55 | 0.96 |
| School adult support (1-5) | 2.95 (0.76) | 10.39 | 0.90 | 2.95 (0.76) | 9.98 | 0.90 |
| Moderate violence victimization (1-4) | 1.52 (0.65) | 5.20 | 0.81 | 1.57 (0.65) | 5.61 | 0.82 |
| Discrimination-based victimization (1-4) | 1.17 (0.43) | 3.04 | 0.67 | 1.17 (0.43) | 2.90 | 0.66 |
| Severe violence victimization (1-4) | 1.34 (0.60) | 9.99 | 0.90 | 1.39 (0.60) | 10.18 | 0.90 |
| Weapon involvement (1-4) | 1.19 (0.47) | 8.12 | 0.88 | 1.22 (0.47) | 8.26 | 0.88 |
| Gang member (0,1) | 0.07 (0.26) | 3.13 | 0.68 | 0.08 (0.27) | 2.75 | 0.64 |
| Suicide ideation (0,1) | 0.19 (0.39) | 3.11 | 0.68 | 0.18 (0.38) | 2.45 | 0.59 |

[a] F values for testing differences between schools. All values statistically significant at $p < .0001$.

Table 2. Distribution of School Characteristics in Two Samples

| Characteristic (measurement scale) | 2011–2013 (N = 790) Mean (SD) | 2009–2011 (N = 860) Mean (SD) |
|---|---|---|
| Enrollment (12-5,015) | 1,356.98 (978.45) | 1,706.15 (911.46) |
| African American or black (0,1) | 0.06 (0.08) | 0.06 (0.09) |
| Asian (0,1) | 0.07 (0.11) | 0.09 (0.13) |
| Hispanic (0,1) | 0.47 (0.27) | 0.44 (0.27) |
| Other race and ethnicity (0,1) | 0.08 (0.08) | 0.07 (0.08) |
| Free and reduced-price meals (0,1) | 0.51 (0.25) | 0.49 (0.26) |
| Academic Performance Index (320-995) | 730.23 (118.08) | 755.20 (78.45) |
| Male gender (0,1) | 0.49 (0.08) | 0.47 (0.05) |
| Grade 9 (0,1) | 0.47 (0.20) | 0.54 (0.14) |
| School belonging (1-5) | 3.49 (0.26) | 3.51 (0.21) |
| School adult support (1-5) | 2.95 (0.18) | 2.97 (0.14) |
| Moderate violence victimization (1-5) | 1.53 (0.11) | 1.57 (0.09) |
| Discrimination victimization (1-5) | 1.18 (0.07) | 1.17 (0.04) |
| Severe violence victimization (1-5) | 1.39 (0.18) | 1.40 (0.10) |
| Weapon involvement (1-5) | 1.23 (0.14) | 1.23 (0.08) |
| Gang member (0,1) | 0.09 (0.05) | 0.08 (0.03) |
| Suicide ideation (0,1) | 0.20 (0.05) | 0.18 (0.04) |

Table 3. Random Coefficient Model Predicting Suicide Ideation Based on Student Characteristics

| Characteristic | 2011–2013 (N = 325,414) | | | 2009–2011 (N = 370,389) | | |
|---|---|---|---|---|---|---|
| | b | SE(b) | OR | b | SE(b) | OR |
| African American or black | -0.15* | 0.03 | 0.86 | -0.07* | 0.02 | 0.93 |
| Asian | 0.12* | 0.02 | 1.13 | 0.06* | 0.02 | 1.06 |
| Hispanic | 0.04* | 0.01 | 1.04 | 0.03 | 0.01 | 1.03 |
| Other race or ethnicity | 0.18* | 0.02 | 1.20 | 0.19* | 0.02 | 1.21 |
| Male gender | -0.74* | 0.01 | 0.48 | -0.66* | 0.01 | 0.52 |
| Grade 9 | 0.01 | 0.01 | 1.01 | 0.02 | 0.01 | 1.02 |
| School belonging | -0.27* | 0.01 | 0.76 | -0.26* | 0.01 | 0.77 |
| School adult support | -0.19* | 0.01 | 0.83 | -0.20* | 0.01 | 0.82 |
| Moderate violence victimization | 0.75* | 0.01 | 2.12 | 0.64* | 0.01 | 1.89 |
| Discrimination victimization | 0.35* | 0.01 | 1.42 | 0.40* | 0.01 | 1.48 |
| Severe violence victimization | 0.20* | 0.01 | 1.23 | 0.22* | 0.01 | 1.24 |
| Weapon involvement | 0.03 | 0.01 | 1.03 | 0.08* | 0.01 | 1.08 |
| Gang member | 0.39* | 0.02 | 1.47 | 0.43* | 0.02 | 1.54 |
| $R^2$ | .20* | | | .17* | | |

*$p < .01$

Table 4. Random Coefficient Model Predicting Suicide Ideation Based on
School Characteristics

| Characteristic | 2011–2013 (N = 781) | | | 2009–2011 (N = 855) | | |
|---|---|---|---|---|---|---|
| | **b** | **SE(b)** | **β** | **b** | **SE(b)** | **β** |
| Enrollment | -0.02 | 0.01 | -0.06 | 0.00 | 0.01 | 0.01 |
| African American or black | -0.28 | 0.16 | -0.10 | -0.06 | 0.12 | -0.03 |
| Asian | 0.21 | 0.09 | 0.09 | 0.05 | 0.07 | 0.04 |
| Hispanic | 0.23* | 0.08 | 0.25 | 0.01 | 0.06 | 0.02 |
| Other race and ethnicity | 0.39* | 0.13 | 0.14 | 0.20 | 0.09 | 0.09 |
| Free and reduced-price meals | 0.04 | 0.08 | 0.04 | 0.14* | 0.05 | 0.20 |
| Academic Performance Index | 0.03 | 0.02 | 0.15 | 0.02 | 0.02 | 0.08 |
| Male gender | -0.92* | 0.16 | -0.31 | -0.79* | 0.18 | -0.23 |
| Grade 9 | -0.28* | 0.08 | -0.23 | 0.04 | 0.06 | 0.03 |
| School belonging | -0.09 | 0.08 | -0.10 | 0.12 | 0.07 | 0.14 |
| School adult support | 0.22 | 0.10 | 0.15 | -0.29* | 0.10 | -0.22 |
| Moderate violence victimization | 0.64* | 0.16 | 0.30 | 0.78* | 0.14 | 0.40 |
| Discrimination victimization | 1.26* | 0.25 | 0.35 | 0.65* | 0.26 | 0.16 |
| Severe violence victimization | 0.25 | 0.17 | 0.19 | 0.40* | 0.15 | 0.22 |
| Weapon involvement | 0.29 | 0.23 | 0.17 | 0.08 | 0.21 | 0.03 |
| Gang member | -0.22 | 0.36 | -0.05 | 0.16 | 0.38 | 0.03 |
| **$R^2$** | .55* | | | .50* | | |

*$p < .01$