Planning is essential to creating safe schools and it is required by the Federal No Child Left Behind legislation (U.S. Department of Education, 2004) and implemented via district local education action plans. The implementation of these plans involves continuous monitoring and reevaluation of information pertinent to each campus. As such, this process is facilitated by the availability of measures that are simple to administer, inexpensive, and whose psychometric properties have been evaluated. The California School Climate and Safety Survey (CSCSS), originally developed by M.J. Furlong, R. Morrison, and S. Boles (1991), was specifically developed for these purposes. The CSCSS is a student self-report questionnaire created to measure general school climate and personal safety-related experiences. In this article, we present the results of an evaluation of the CSCSS including exploratory and confirmatory factor analyses. These analyses reduced the original CSCSS research version from 102 items to 54 items. The psychometric properties of this CSCSS-SF (Short Form) are presented. © 2005 Wiley Periodicals, Inc.

Creating safe and violence-free schools is one of the primary missions of public education. Even though, quite appropriately, school violence has continued to capture national attention, violence victimization in America’s schools has actually decreased since 1992 (Kaufman et al., 2001). Recent survey results suggest that school violence has decreased in priority for school administrators. For example, a National School Boards Association study found that a vast majority of its national membership (77%) reported school violence to be a mild to moderate concern on their school campuses, whereas student achievement, special education, teacher shortages, and balancing the budget were more pressing issues (Hess, 2002). A recent Federal Safe School Indicator Report shows that school administrators are far more concerned about everyday conditions at schools (e.g., attendance and a courteous behavior) than more serious threats such as school-based weapons possession (DeVoe et al., 2002).

Thus, it appears that, as media attention on school violence and public pressure to respond have subsided over recent years, school administrators (and other educators and policy makers) have adopted a more balanced perspective of the actual level of threat posed to the safety of school campuses. Though schools must continue to vigorously attend to school violence prevention and safety issues, these problems are now being integrated into comprehensive efforts to support students’ well being and promote academic success. This trend is reflected in the Crime, Violence and Discipline Task Force of the National Forum on Education Statistics’ July 2002 report, which advised that public schools should not only work toward meeting high academic standards but also continue their mission to create an environment that is free of violence and other crimes (National Center for Education Statistics, 2002).

As an example of a balanced approach to school safety planning, the United States Departments of Education and Justice recommend a comprehensive three-level approach to violence prevention (Dwyer & Osher, 2000). The foundation and first level of this approach involves
schoolwide prevention to build positive discipline and academic success for all students. The second level entails efforts in early intervention appropriate for all students, while the third level includes intensive and coordinated services for students who are most at-risk of participating in or being a victim of school violence (Armstrong, Massey, Boroughs, Bailey, & Lajoie, 2003; Dwyer & Osher, 2000).

The implementation of these plans by schools must involve continuous monitoring and re-evaluation for the purpose of supporting and addressing the unique needs of each school and its surrounding community. A hallmark of effective schools across domains is that they assess progress and make decisions based on the use of data. Thus, monitoring school violence incidents and school safety-related campus conditions are an essential component of creating safe and effective schools. Assessment of school safety conditions has become even more pressing given the provisions of the No Child Left Behind Federal Act (U.S. Department of Education, 2004) that allow parents to request the transfer of their children from “persistently dangerous schools” to safer schools within the same district. Parents and the broader community will increasingly demand that schools measure and report what is happening to students on their campuses. In addition, some states (e.g., California) require each school to develop a comprehensive school safety plan.

A crucial question therefore becomes: “How will schools develop, monitor, and modify their violence prevention plans?” The development of safety plans will most likely rely heavily on the information provided by existing measures of school violence and safety. These measures may assist schools in building their school safety plan while later providing a means with which to evaluate the plan’s effectiveness.

**Commonly Used School Violence Measures**

Various school violence and safety measures have been developed and broadly used in the United States since the early 1990s. The most notable of these include: the Youth Risk Behavior Surveillance Survey (YRBS; Brener, Simon, Krug, & Lowry, 1999; Kann et al., 1998, 2000; McGraw et al., 2000; Modzeleski, Small, & Kann, 1999); Monitoring the Future (MTF; Bachman, Johnston, & O’Malley, 2001; Kingery, Coggeshall, & Alford, 1998); the National School Crime Victimization Survey (NSCVS; Chandler, Chapman, Rand, & Taylor, 1998; Coggeshall & Kingery, 2001); the National School Crime and Safety Survey (NSCSS; Kingery, Minogue, Murphy, & Coggeshall, 1998); and the California Healthy Kids Survey (California Department of Education, 1998; WestEd, 2004). These surveys are used by schools and governmental agencies across the United States and provide the vast majority of the information included in national school safety reports (e.g., DeVoe et al., 2002).

These most widely used school safety instruments were originally developed to assist in the creation and monitoring of national trends of school violence using a public health model. In this model, it is important to accurately estimate base rates of risk behaviors across the entire population to evaluate trends over time. It is less critical that the instruments accurately assess each individual student’s experiences. For this reason, traditional psychometric analyses of these scales have not been conducted, as it is not their intention to be part of student-specific assessments (Furlong, Greif, Bates, Whipple, Jimenez, and Morrison, 2004). Thus, items have remained unchanged from year-to-year to maintain their capacity to evaluate national trends (Furlong, Sharkey, Bates, & Smith, 2004). The information gleaned from these pioneering school safety instruments has influenced public policy by providing periodic updates about progress being made toward national and state school safety goals. Nonetheless, there is a continuing need to examine the psychometric characteristics of school safety instruments and to refine them so that they can be used with confidence in research and program evaluation studies. Furthermore, these national prevalence surveys have limited utility at the district and school levels for school safety planning purposes.
The California School Climate & Safety Survey

Given the many demands on educators, there is a need for school safety measures that provide student-specific information and are easy and inexpensive to administer. Given this demand, it is important for schools to be able to select from measures whose psychometric properties are tested and recognized as suitable for use within the school. The California School Climate and Safety Survey (CSCSS; Furlong, Morrison, & Boles, 1991) was designed specifically for use by school site safety-planning teams. It is a student self-report questionnaire created to measure general school campus climate and personal safety-related experiences. Originally developed as a needs assessment tool, the CSCSS was designed to correspond with the school safety-planning model presented in the original edition of Safe Schools: A Planning Guide for Action (California Department of Education, 2002). As a research instrument, the CSCSS has been used in numerous studies (e.g., Benbenishty & Astor, 2004; Dean & Wang, 2001; Furlong, Sharma, & Rhee, 2000) as well as referenced in published reports related to school violence and safety (Osher, Dwyer, & Jackson, 2003). The original CSCSS consisted of 102 items with questions involving demographic information, perceptions of school climate, global safety and security, social support, social desirability, school violence victimization, and a hostile attitude index. Although these scales were not derived from a proven theoretical model, they were driven by a conceptual model and the idea that school safety can be most effectively assessed by measuring both problems with safety/danger and feelings related to climate/engagement.

Purpose of This Study

An analysis of the original CSCSS (hereafter called the CSCSS Research Version) was conducted to develop an improved, streamlined version that is easier to administer and less costly for school-based research and program evaluation. A combination of exploratory and confirmatory approaches was used to reduce the number of items, determine the factor structure, and investigate the construct validity of the resulting short form (CSCSS-SF) of the scale. An exploratory analysis was selected because the scale structure needed to be empirically validated. A series of EFAs were conducted to strengthen the replicability of the study. In this article we describe this process as well as the CSCSS-SF’s psychometric properties.

Methods

Participants

The CSCSS Research Version was originally administered to 9,743 students in grades 6–12, for whom 7,524 surveys had complete data and were used in this analysis. This represents 77.2% of all students surveyed, a proportion of cases with complete usable data that is greater than the percentage obtained by the Youth Risk Behavior Survey (63% for 2001; Furlong, Sharkey, et al., 2004). Classroom teachers administered the survey as part of a school-wide effort to develop a school safety plan. Most of the teachers received some training in the survey’s purpose and administration. Student respondents self-identified as 40.2% White, 5.5% Black, 37.9% Latino, 2.8% Native American, 9.5% Asian American students, and 4.2% “other.” More than half (57%) of the participants (n = 4,307) were female, whereas 43% (n = 3,217) were male. There was an almost even distribution of students across the 6th through the 12th grades (see Table 1). Students attended 61 schools located in urban, suburban, and rural areas of central and southern California.

1An administration version of the CSCSS-SF with randomly distributed items, social desirability, and validity items is available on the Center for School-Based Youth Development website: http://www.education.ucsb.edu/csbyd.
The CSCSS Research Version (Furlong, 1996; Furlong, Morrison, & Boles, 1991) contains 102 items for use with students from the 6th through the 12th grades. The measure is comprised of three major sections: perceptions of school danger, perceptions of school climate, and reports of victimization. In addition, the measure contains two response validity check items and a three-item social desirability scale. Descriptions of the indexes that appear in the CSCSS Research Version have been provided in previous publications (e.g., Bates, Chung, & Chase, 1997; Chase, 2000; Furlong, Morrison, Bates, & Chung, 1998; Furlong et al., 2000; Morrison, Furlong, & Smith, 1994).

Items in the school danger section are designed to measure students’ perceptions of the frequency of dangerous activities occurring on the school campus. According to a 5-point Likert scale (ranging from “not at all” to “very often”), students are asked to indicate how often they observe a list of dangerous activities at their school (e.g., drugs, vandalism, weapon-carrying). These items were based on items from the Minnesota Adolescent Health Survey (Blum, Harris, Resnick, & Rosenwinkel, 1989).

The school climate section assesses perceptions of the school environment. Using a 5-point Likert scale (ranging from “strongly disagree” to “strongly agree”), students respond to questions about feelings of safety, respect, support, and interpersonal relationships at their school.

The school victimization section samples a range of incidents of school violence. Students are asked to indicate if they have personally experienced (not just witnessed) any of 14 different events at school during the past month including bullying, personal injury, theft, and verbal harassment. Students were required to respond “yes” or “no” to each item.

Data Analysis Procedure

The objective of these analyses was to examine the CSCSS Research Version to refine and simplify its factor structure. Given the large sample, it was possible to partition the cases so that analyses could be replicated and thereby reduce the possibility of obtaining sample-specific findings.

The 7,524 students who responded to all items used in these analyses (a requisite) were partitioned into four non-overlapping subgroups using the random cases generating procedures in SPSS (version 11.0). These subgroups were used to conduct a series of three exploratory factor analyses and the final group was used in a confirmatory factor analysis. The first three subsamples were subjected to principal component factor analysis with varimax rotation. EFA was selected, to
empirically validate the scale structure. For items to remain in the scale they were required to have a loading of at least .40 on one factor and not load above .35 on another factor. Items that did not have sufficient loading or that double loaded were excluded from subsequent analyses. After conducting the factor analysis with Subsample 1 and removing appropriate items, the same procedure was conducted with Subsample 2 and then Subsample 3 (ran without the items that were excluded in the previous analyses). Reliability coefficient alphas were computed for each remaining factor using data from Subsample 3. If the reliability was below .60, then the scale was considered for removal. Confirmatory factor analysis (Amos version 4; SPSS, 2003) was conducted using Subsample 4 data to evaluate the factor structures identified in the exploratory factor analyses.

**Results**

**Reliability and Validity Scales**

The CSCSS includes items that can be used to screen for possible response invalidity and to assess possible minimization of school safety problems. Embedded in the school violence victimization section are two items (35 and 39) designed to assess the validity of responses: “In the past month . . . you took ten field trips” and “In the past month . . . you were voted student of the week four times.” If students responded, “yes” to both items, their information was not considered to be a valid representation of their violence victimization. These cases were removed from the dataset and the remaining analyses. Three items are intended to check for the potential influence of social desirability: “I like everyone I meet,” “I always think before I act,” and “I tell the truth every single time.” Responses to these items were not used to determine inclusion in the remaining analyses but may be useful for specific research purposes. The average response to these items was 3.00 on a 1–5 Likert-type response scale (SD = .70).

**CSCSS Subscales: School Danger Section**

**Exploratory factor analyses.** A series of three principal component analyses (PCA) with varimax rotation was conducted to explore the factor structure of the seven school danger items. Results for the three samples yielded nearly identical solutions. The factor solution indicated that there were two factors, each explaining approximately 32% of the total variance. For the three subsamples, primary factor loadings ranged from .599 to .867, .595 to .874, and .596 to .872, respectively. Of the seven items, three loaded on the first factor, two loaded on the second factor, and two loaded about equally on both factors (see Table 2 for the Subsample 3 analysis). Reliability coefficients were computed for the seven items combined (alpha = .809) and for the two factors separately (alphas = .757 and .765).

**Confirmatory factor analysis.** A confirmatory factor analysis (CFA) with the school danger items was used to evaluate if a one-factor or two-factor solution was best to represent the relationship among the seven items. Three models were examined for goodness-of-fit. Model 1 consisted of all seven danger items entered. Model 2 split the items into two uncorrelated subscales. The final model examined the two factors as correlated subscales. This third model resulted in the best fit-indices (see Table 5). The analyses suggest that the school danger items can be used as a unidimensional scale; however, it is best conceptualized as consisting of two highly correlated factors ($r = .463, p < .001$), one containing mild/moderate School Danger items (four items) and the other consisting of more severe danger items (three items).

**Final School Danger Subscales.** The final subscales derived from the exploratory and confirmatory factor analyses are as follows:
Campus Disruption: (Items 1–4). These four items (range = 4–20) ask participants how often students fight, steal, bully, and destroy things at their school.

Substance Use & Weapon-Carrying: (Items 5–7). These three items (range = 3–15) ask participants how often students use drugs, drink alcohol, or carry weapons at their school.

Total Danger: (Items 1–7). A total danger subscale (range 7–35) can be computed by taking the average of all School Danger items. A high score on the School Danger subscales indicates that students perceive these dangerous behaviors are happening frequently at their school.

CSCSS Subscales: School Climate Section

Exploratory factor analyses. A series of principal component analyses (PCA) with varimax rotation was performed successively on Subsamples 1–3 using the 48 items from the School Climate measure. After each analysis, poorly performing items were removed and the model was retested. Results of the PCA for Subsample 1 revealed 11 factors with eigenvalues over 1.0. Based on the scree plot, it was determined that the first five factors, which accounted for a cumulative 36.51% of variance, would be used in subsequent examination of the factor loadings. To remain in analyses, items needed to load above .40 on one in the first five factors of the rotated component matrix. Additionally, the item could not load above .35 on a second factor. Based on these criteria, 17 items were eliminated because they did not load on any of the first five factors and 3 items were eliminated because they double-loaded.

A second exploratory factor analysis was conducted using Sample 2, with the remaining items. This analysis revealed a four-factor solution that accounted for 43.28% of the total variance. Again, items were eliminated if they did not sufficiently load on any factor or if they double-loaded. Two items were removed because they did not load above .40; five items were eliminated because they loaded on more than one factor.

### Table 2

<table>
<thead>
<tr>
<th>Items</th>
<th>Campus Disruptions (Factor 1)</th>
<th>Substance Use &amp; Weapon-Carrying (Factor 2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Students getting into fights</td>
<td>.808</td>
<td>.010</td>
</tr>
<tr>
<td>2. Students stealing things</td>
<td>.739</td>
<td>.269</td>
</tr>
<tr>
<td>3. Students threatening or bullying</td>
<td>.737</td>
<td>.149</td>
</tr>
<tr>
<td>4. Students destroying things (vandalism)</td>
<td>.596</td>
<td>.467</td>
</tr>
<tr>
<td>5. Student using drugs (marijuana, coke, crack)</td>
<td>.129</td>
<td>.872</td>
</tr>
<tr>
<td>6. Students drinking beer/wine/liquor</td>
<td>.090</td>
<td>.866</td>
</tr>
<tr>
<td>7. Students carrying weapons</td>
<td>.437</td>
<td>.604</td>
</tr>
</tbody>
</table>

Eigenvalue: 3.30, 1.20
Variance explained: 47.19%, 17.13%
Alpha coefficient: .757, .765

*Note.* Extraction method: principal component analysis. Rotation method: varimax with Kaiser normalization. Rotation converged in five iterations. Numbers in italics represent items loading onto the corresponding factor.
Items that had not previously been eliminated were included in a final exploratory factor analysis with the data from Subsample 3. This analysis again revealed a four-factor solution that accounted for 50.11% of the total variance. Based on the criteria outlined above, two items were eliminated because they did not load sufficiently on either factor and one item was eliminated because it loaded on two factors.

Reliability coefficients were computed for each of the four factor scales. For the first factor, reliability coefficient alpha was .798, compared to .780 for the second factor, .693 for the third factor, and .545 for the fourth factor. The fourth factor was excluded from future analyses because of its low reliability.

**Confirmatory factor analysis.** Confirmatory factor analysis (CFA) with the school climate items centered on validating the four factors derived from the previous exploratory factor analyses. Each subscale was entered separately into Amos for analysis. Findings indicated that goodness-of-fit indices were sufficient (TLI and CFI above .90, RMSEA below .10 for Factors 1 and 2). Factor 3 was excluded from the final assessment, because its CFA goodness of fit indices were poor. While Factor 4 had good fit-indices it was excluded from the final instrument because of its low reliability and conceptual ambiguity. The correlation between the Climate and Safety scales was $r = -.181$ ($p < .01$).

**Final School Climate Scales.** The final subscales (see Table 3) derived from the exploratory and confirmatory factor analyses are as follows:

| Table 3 Principal Component Rotated Component Matrix for School Climate Items—California School Climate and Safety Survey—Short Form (Subsample 3 Analysis) |
|-----------------------------------|-----------------------|-----------------------|
| Items                             | Climate | Safety |
| 8. My teachers respect me.       | .787    | -.070  |
| 9. My teachers are fair.         | .782    | -.080  |
| 10. Teachers here are nice people.| .735    | -.090  |
| 11. When students break rules, they are treated fairly. | .644 | -.010 |
| 12. The rules at my school are fair. | .611 | -.070 |
| 13. It pays to follow the rules at my school. | .463 | -.020 |
| 14. The principal asks students about their ideas. | .412 | .030 |
| 15. Gang members make this school dangerous. | .090 | .800 |
| 16. This school is being ruined by youth gang activity. | -.040 | .748 |
| 17. This school is badly affected by crime and violence in the community. | -.140 | .726 |
| 18. Crime and violence is a major concern on this campus. | -.020 | .672 |
| 19. I do not feel safe at this school. | -.268 | .601 |

Eigenvalues 5.85 2.37
Variance explained 27.86% 11.27%
Alpha coefficients .811 .780

School Climate: (Items 8–14). The seven items (range 7–35) in this subscale assess school climate and its structure. Items ask about support from teachers and whether school rules are fair. A high score on this subscale indicates that students feel that the school climate has a high level of positive support.

School Safety: (Items 15–22). These eight items (range 8–40) assess students’ perceptions of safety at their school. Items ask about the presence of gang members, crime, and school and community violence. A high score on the School Safety subscale suggests that students do not feel safe at school.

CSCSS Subscales: School Victimization Section

Exploratory factor analyses. Using a similar approach as with the school climate items, we conducted a series of PCAs with varimax rotation for each of the three samples on the 21 School Victimization items, eliminating spurious items after each step. The results for Subsample 1 indicated a four-factor solution accounting for a cumulative 48.21% of the variance. One item was excluded from future analyses because it did not load above .40 on any of the factors. Three items were excluded because they loaded on more than one factor.

The second PCA using Subsample 2 again found a four-factor solution (accounting for 50.10% of total variance). No items were excluded from this analysis as all items loaded above .40 on a factor and none loaded above .35 on a second factor. Results for Subsample 3 were almost identical to that found with the Subsample 2 data, with all items loading sufficiently and no double-loaded items.

Reliability coefficient alphas were computed for each of the four school victimization factors. Alpha coefficients were as follows: .781 for Factor 1, .723 for Factor 2, .494 for Factor 3, and .750 for Factor 4 (see Table 4). Although Factor 3 had low reliability, it was determined that its items were low incident but important indicators of school safety and thus we decided to keep them in the scale as Critical Items.

Confirmatory factor analysis.

Again, data from Subsample 4 were subjected to a confirmatory factor analysis to test the results of the exploratory analyses. Confirmatory factor analysis was employed to determine the fit indices of each subscale. It was determined that Factors 1 and 2 had sufficient fit indices. As Factor 4 only consisted of two items, it was not possible to conduct a CFA on this factor (see Table 5 for fit indices). The correlations between the victimization subscales ranged from $r = .272$ to $.395$ and were statistically significant.

Final School Victimization Scales. The final subscales derived from the exploratory and confirmatory factor analyses are as follows:

Physical–Verbal Harassment: (Items 20–26). The seven items (range 0–7) in this subscale assess whether students have experienced acts of victimization that are moderate in severity. Items ask students whether they have been physically hurt (e.g., grabbed or shoved), teased, or felt like someone was trying to intimidate them. High scores on these items indicate that students have been subject to physical and/or verbal harassment at school.

Weapons & Physical Attacks: (Items 27–31). The items in the Weapons & Physical Attacks subscale (range = 0–5) ask students whether they have been threatened by a weapon, cut with a knife, had to see a doctor because of a fight-related injury, or been threatened in transit to or from school. High scores on these items indicate that students have experienced physical attacks, and/or felt threatened by weapons at school.
Critical Items: (Items 34–36). As this third factor had low reliability, it was determined that these items would be used as critical items, rather than combined into a subscale. The critical items ask students whether they saw other students with a knife or gun on campus, as well as whether they were involved in ethnic or racial conflicts with other students. Although they are not computed as part of a subscale, these critical items are important for schools that are assessing the safety of their students.

Sexual Harassment: (Items 32–33). The two Sexual Harassment items request information from students about unwanted physical sexual advances and sexual harassment in school. Students who endorse these items are reporting that they have experienced some level of sexual harassment.

**Relationship Between Scale Scores and Student Characteristics**

CSCSS-SF scale scores were computed for the entire sample by taking the item average for each subscale. Table 6 presents the data for each subscale compared across grades and gender. The alpha level for these analyses was reduced to .008 using Bonferroni correction (.05 divided by six analyses), in recognition of the multiple comparisons made simultaneously among the samples. At this level, there were significant differences between males and females in the subscales. Most notably, males at all grade levels reported significantly higher scores on the School Safety scale than females, indicating that they feel less safe at school. Males also reported significantly
higher scores on the Physical–Verbal Harassment and Weapons & Physical Attacks scales at all grade levels; however, females reported significantly higher Sexual Harassment scores at all grade levels. Taken together, these findings suggest that males and females have different experiences with school safety and victimization and that these differences are generally consistent across grades.

**DISCUSSION**

These analyses were conducted to create a short form of the California School Climate and Safety Survey. Data from 7,524 junior and high school students in California who completed the CSCSS Research Version were used in exploratory and confirmatory factor analyses to determine

Table 5
Confirmatory Factor Analyses of the Schools Danger, School Climate, and School Safety Subscales (Subsample 4 Analysis)

<table>
<thead>
<tr>
<th>Models</th>
<th>$\chi^2$</th>
<th>df</th>
<th>TLI</th>
<th>CFI</th>
<th>RMSEA</th>
<th>RMSEA_CI</th>
<th>Alpha</th>
</tr>
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<tbody>
<tr>
<td>School Danger</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model 1 (all seven items)</td>
<td>828.20</td>
<td>14</td>
<td>.941</td>
<td>.970</td>
<td>.180</td>
<td>.169-.190</td>
<td>.809</td>
</tr>
<tr>
<td>Model 2 (two uncorrelated subscales)</td>
<td>773.77</td>
<td>14</td>
<td>.946</td>
<td>.973</td>
<td>.171</td>
<td>.161-.182</td>
<td>.757 &amp; .765</td>
</tr>
<tr>
<td>Model 3 (two correlated subscales)</td>
<td>28.24</td>
<td></td>
<td>.995</td>
<td>.999</td>
<td>.057</td>
<td>.039-.078</td>
<td></td>
</tr>
<tr>
<td>School Climate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model 1 (Climate Factor)</td>
<td>158.11</td>
<td>14</td>
<td>.942</td>
<td>.961</td>
<td>.075</td>
<td>.064-.085</td>
<td>.798</td>
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<tr>
<td>Model 2 (Safety Factor)</td>
<td>70.79</td>
<td>5</td>
<td>.940</td>
<td>.970</td>
<td>.084</td>
<td>.068-.102</td>
<td>.780</td>
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<td>Model 3 (Climate &amp; Safety correlated)</td>
<td>526.81</td>
<td>53</td>
<td>.986</td>
<td>.991</td>
<td>.070</td>
<td>.064-.075</td>
<td>.693</td>
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<td>School Victimization</td>
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<td></td>
<td></td>
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<tr>
<td>Model 1 (Physical–Verbal Harassment)</td>
<td>193.20</td>
<td>14</td>
<td>.951</td>
<td>.976</td>
<td>.083</td>
<td>.073-.094</td>
<td>.781</td>
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<tr>
<td>Model 2 (Weapons &amp; Physical Attacks)</td>
<td>63.47</td>
<td>5</td>
<td>.905</td>
<td>.968</td>
<td>.080</td>
<td>.063-.098</td>
<td>.723</td>
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<tr>
<td>Model 3 (Sexual Harassment Factor)</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>.750</td>
</tr>
</tbody>
</table>

*Note. ci = confidence interval.*

Table 6
CSCSS-SF Subscale Means (and SDs) by Gender and Grade Level

<table>
<thead>
<tr>
<th>CSCSS Subscale</th>
<th>6th–7th</th>
<th></th>
<th>8th–9th</th>
<th></th>
<th>10th–12th</th>
<th></th>
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<tr>
<td></td>
<td>Male</td>
<td>Female</td>
<td>Male</td>
<td>Female</td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>School Danger</td>
<td>17.59 (5.41)</td>
<td>17.82 (5.45)</td>
<td>19.40 (5.86)</td>
<td>19.98 (5.37)</td>
<td>19.81 (5.78)</td>
<td>20.88 (5.40)*</td>
</tr>
<tr>
<td>School Climate</td>
<td>18.03 (4.83)</td>
<td>19.03 (4.80)*</td>
<td>17.76 (4.95)</td>
<td>17.89 (4.17)</td>
<td>17.79 (4.37)</td>
<td>17.94 (4.12)</td>
</tr>
<tr>
<td>School Safety</td>
<td>12.67 (4.63)</td>
<td>12.16 (4.13)*</td>
<td>13.17 (4.24)</td>
<td>12.52 (3.87)*</td>
<td>13.31 (4.08)</td>
<td>12.87 (4.02)*</td>
</tr>
<tr>
<td>Physical–Verbal Harassment</td>
<td>3.08 (2.28)</td>
<td>2.03 (1.85)*</td>
<td>2.46 (2.17)</td>
<td>1.73 (1.67)*</td>
<td>1.72 (1.91)</td>
<td>1.39 (1.57)*</td>
</tr>
<tr>
<td>Weapons &amp; Physical Attacks</td>
<td>0.34 (.82)</td>
<td>0.16 (.81)*</td>
<td>0.39 (.94)</td>
<td>0.12 (.41)*</td>
<td>0.30 (.85)</td>
<td>0.12 (.48)*</td>
</tr>
<tr>
<td>Sexual Harassment</td>
<td>0.19 (.50)</td>
<td>0.28 (.60)*</td>
<td>0.24 (.59)</td>
<td>0.41 (.73)*</td>
<td>0.29 (.63)</td>
<td>0.46 (.76)*</td>
</tr>
</tbody>
</table>

*Note. School Danger is the total score across all seven items.*

*a = Female > male, $p < .008$ at respective grade levels.

*b = Male > female, $p < .008$ at respective grade levels.*
which items would remain in the short form. The CSCSS consists of three sections (School Danger, School Climate, and School Victimization), each of which was analyzed separately. Findings indicate that the School Danger section of the CSCSS-SF is best conceptualized as two subscales (Campus Disruption and Substance Use & Weapon-Carrying) that are highly correlated. These seven items can be used by schools to get a sense for students’ reports of dangerous activities that they have witnessed on school grounds; that is their global perception of the frequency with which high-risk behaviors occur on campus. The items can be scored either by computing the two subscales, or combining the items for an overall sense of the danger that students have observed. The School Climate section of the survey was reduced to two subscales: School Climate and School Safety, containing seven and eight items, respectively. These scales can be used together to assess students’ sense of support from school (Climate) and students’ perceptions of campus security (Safety). Finally, the School Victimization section was reduced to 14-items contained in three subscales (Physical–Verbal Harassment, Weapons & Physical Attacks, and Sexual Harassment) and three critical items. These scales assess students’ reports of the victimization that they have personally experienced. Although the correlations between subscales were statistically significant, the low magnitude of the correlation indicated that the choice of Varimax rotations was appropriate.

Together these scales comprise the CSCSS-SF, an assessment designed to measure students’ perceptions of whether their school is safe and supportive. The sections described previously can be used to develop a comprehensive picture of school safety, as they assess students’ observations, feelings, and personal experiences with danger on school grounds. Used alone, or in combination, these sections can provide useful information for the school community.

Some critiques of past school violence measurement practices have been raised (e.g., Rosenblatt & Furlong, 1997). For example, Cross and Newman-Gonchar (2004) found that 15–63% of student responses to self-report surveys were inconsistent or illogical. They found that students who provided these irregular responses raised the estimated level of risk, anti-social behaviors, and victimization. In addition, these findings indicated that surveys distributed by trained proctors had a lower percentage of inconsistent responses than those given by untrained proctors. Failure to adequately administer and screen data can result in inflated estimates of school danger and victimization experiences (Cross & Newman-Gonchar, 2004). This study should remind potential users of the CSCSS-SF that the quality of the information that it can provide is affected by carefully attending to administration procedures.

Furlong, Sharkey, Bates, and Smith (2004) analyzed extreme response patterns to the Youth Risk Behavior Survey (YRBS). They found that students who gave the most extreme response to a weapon-carrying item were more likely to also endorse extreme answers to other YRBS items (even including items assessing healthy behaviors). These results indicated a possible extreme response bias in the YRBS that could artificially increase reports of the prevalence of school danger (Furlong, Morrison, et al., 2004). Social desirability and response validity check items in the CSCSS-SF were included so that researchers and district staff would have a way to evaluate potential response bias.

Although the CSCSS-SF provides a useful tool to assess school safety, researchers increasingly recognize that they need to attend more closely to the psychometric characteristics of school violence and safety instruments. The California Healthy Kids Survey (CHKS; California Department of Education, 1998) is one example of such an innovative approach. The CHKS is comprised of modules measuring several aspects of school climate, safety, student health, and well being. In addition, reliability and validity studies have indicated that the CHKS has adequate psychometric properties. Another promising option for assessing school safety is The Safe and Responsive Schools (SRS) Safe Schools Survey under development by Skiba, Simmons, Peterson, Mc Kelvey,
Ford, and Gallini (2004). This survey was designed to measure perceptions of school safety and climate, using a conceptualization that incorporates school connectedness as a primary component of feeling safe at school.

The CSCSS-SF was designed using a similar model that combines climate and danger items to develop a multifaceted understanding of school safety. This instrument could serve as a useful measure for schools needing a brief measure of school safety. In addition, this instrument could be used in the evaluation of school-based prevention and intervention programs by researchers, evaluators, and school safety planning teams.

We see the CSCSS-SF as complementing assessments that have been used in larger state and national studies (e.g., the Youth Risk Behavior Surveillance Survey). The CSCSS-SF has acceptable psychometric properties and fills a niche in that it assesses multiple facets of students’ perceptions of school safety and climate. In addition, it is currently available for use by schools (access to the CSCSS-SF can be found on the Center for School-Based Youth Development Web Site: www.education.ucsb.edu/c4sbyd).

Although we are not arguing that state or national prevalence studies should use indices derived from the CSCSS-SF, we suggest that it is necessary to closely examine the psychometric properties of all widely used school safety instruments, particularly those contributing to policy decisions. Further, we recommend that measures of school safety incorporate safety and climate questions, in addition to the standard questions about school danger. The CSCSS-SF is offered as one measure that can provide school sites with sound information and offer guidance in areas that most directly impact schools.

References


