School Climate and Safety in Virginia High Schools
Dewey Cornell, Ph.D.

Overview
1. Virginia School Climate Survey
2. Authoritative School Climate Theory
3. State results
4. Characteristics of authoritative high schools

What is the purpose of a school climate survey?
- Gather more comprehensive and valid data on school conditions
- Focus attention on quality of teacher-student relationships and peer relationships in order to improve conditions for learning and healthy student development
- Identify strengths as well as areas that need improvement
- Measure progress toward school improvement goals

School Climate Matters
- Greater engagement and attendance
- Fewer discipline problems
- Less bullying and teasing
- Less aggression toward teachers
- Better academic performance
- Higher graduation rates


Dewey G. Cornell, Ph. D., is a forensic clinical psychologist and Professor of Education in the Curry School of Education at the University of Virginia. Dr. Cornell is Director of the UVA Youth Violence Project, and a faculty associate of the Institute of Law, Psychiatry, and Public Policy.

Dr. Cornell has studied youth violence for 30 years and authored more than 200 publications in psychology and education. He directs a federally funded project that administers the Authoritative School Climate Survey in more than 700 Virginia secondary schools. He developed the Virginia Student Threat Assessment Guidelines, which is an evidence-based protocol for schools to resolve student threats of violence.
Virginia Secondary School Climate Project

- Authoritative School Climate Survey
- All middle & high schools (alternating years)
- All students or randomly selected 25/grade
- Report with school, region, & state norms

School Survey Participation Rates

<table>
<thead>
<tr>
<th>Survey Data</th>
<th>Middle School (2013)</th>
<th>High School (2014)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schools</td>
<td>423 (98%)</td>
<td>323 (99%)</td>
</tr>
<tr>
<td>Students</td>
<td>43,805 (85%)</td>
<td>48,027 (89%)</td>
</tr>
<tr>
<td>Teachers</td>
<td>9,134 (79%)</td>
<td>13,455 (57%)</td>
</tr>
</tbody>
</table>

2015 SURVEY
Feb 1 – April 1

- 7th and 8th grades
- 430 schools
- Students, teachers, and staff

2016 SURVEY
Feb 1 – April 1

- 9th thru 12th grades
- 324 high schools
- Students, teachers, and staff

SURVEY REPORTS

- Each school receives a 25+ page report
- School, region, and state norms
- Raw data file for student gender and grade groups
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12-2-14

The school rules are fair.
Most teachers and other adults at this school want all students to do well.
My teachers expect me to attend college.
I feel like I belong at this school.
I have been bullied at school this year.
A student physically attacked, pushed, or hit me.
A student threatened to hurt me.
A student said mean or insulting things to me.

Student Perceptions of Safety

<table>
<thead>
<tr>
<th>Year School</th>
<th>State</th>
<th>Percent Agree or Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>I feel safe in my school</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Bullying is a problem at this school</td>
</tr>
<tr>
<td></td>
<td></td>
<td>A student threatened to hurt me</td>
</tr>
<tr>
<td></td>
<td></td>
<td>A student physically attacked, pushed, or hit me</td>
</tr>
</tbody>
</table>

Student Perceptions of School

<table>
<thead>
<tr>
<th>Percent Who Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>The school rules are fair.</td>
</tr>
<tr>
<td>Most teachers and other adults at this school want all students to do well.</td>
</tr>
<tr>
<td>My teachers expect me to attend college.</td>
</tr>
<tr>
<td>I like this school.</td>
</tr>
<tr>
<td>I feel like I belong at this school.</td>
</tr>
</tbody>
</table>

Student Experiences of Aggression

<table>
<thead>
<tr>
<th>Percent Who Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I have been bullied at school this year</td>
</tr>
<tr>
<td>A student physically attacked, pushed, or hit me</td>
</tr>
<tr>
<td>A student threatened to hurt me</td>
</tr>
<tr>
<td>A student said mean or insulting things to me</td>
</tr>
</tbody>
</table>

Student Perceptions of School Climate

<table>
<thead>
<tr>
<th>Percent Who Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I feel safe in my school</td>
</tr>
<tr>
<td>Bullying is a problem at this school</td>
</tr>
<tr>
<td>A student threatened to hurt me</td>
</tr>
<tr>
<td>A student physically attacked, pushed, or hit me</td>
</tr>
</tbody>
</table>

Correlation between Teachers and Students for PTB is .61
The adults at this school are too strict.
The punishment for breaking school rules is the same for all students.
Students at this school are only punished when they deserve it.
When students are accused of doing something wrong, they get a chance to explain.

Developmental research has found that authoritative parents, who are both demanding and warm with their children, are more effective than authoritarian parents who are demanding but cold and permissive parents who are warm but not demanding.

Our research suggests that schools where discipline is strict but fair, and teachers are perceived as supportive, are more positive learning environments.

Classic study of parents
Two contrasting groups
- "Authoritarian" strict discipline-oriented
- "Permissive" lacking in discipline

Source: Baumrind, 1966

Classic study of parents
Two contrasting groups
- "Authoritarian" strict discipline-oriented
- "Permissive" lacking in discipline

Survey of principals
Two contrasting groups
- "Get-tough" strict discipline-oriented
- "Be supportive" prevention-oriented

Source: Skiba & Edl, 2004

One dimension....
Many people intuitively think that being tough and being supportive are opposites on a continuum.

Structure
- "Demanding"
- "Strict"
- "Tough"

Support
- "Responsive"
- "Warm"
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Or two dimensions?

Hi
Structure
Lo
Support
Hi

Four types of parenting

Authoritarian
Authoritative
Lo
Negligent
Permissive
Hi

Four types of schools?

Authoritarian
Authoritative
Lo
Negligent
Permissive
Hi

Four types of schools?

Authoritarian
Authoritative
Lo
Negligent
Permissive
Hi

Support - Care and Willingness to Seek Help

Most teachers and other adults at this school care about all students
Most teachers and other adults at this school want all students to do well
Most teachers and other adults at this school listen to what students have to say
Most teachers and other adults at this school treat students with respect
There are adults at this school I could talk with if I had a personal problem
If I tell a teacher that someone is bullying me, the teacher will do something about it
I am comfortable asking my teachers for help with my school work
There is at least one teacher or another adult at this school who really wants me to succeed
Overall SUPPORT

Structure and Support established in multi-level structural approach to factor analysis

How much teasing and bullying do we observe in schools with different levels of structure and support?

**IV** - 4 groups of schools  
**DV** - School percentile in Prevalence of Teasing and Bullying
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12-2-14

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### Multi-level Linear Regression for Teacher Reports of Prevalence of Teasing and Bullying

<table>
<thead>
<tr>
<th>Variable</th>
<th>b</th>
<th>SE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>13.79***</td>
<td>0.36</td>
</tr>
<tr>
<td>School Size (/100)</td>
<td>0.05**</td>
<td>0.02</td>
</tr>
<tr>
<td>% FRPM</td>
<td>0.02**</td>
<td>0.01</td>
</tr>
<tr>
<td>% Minority</td>
<td>-0.02***</td>
<td>0.00</td>
</tr>
<tr>
<td>ASC</td>
<td>-0.09***</td>
<td>0.01</td>
</tr>
</tbody>
</table>

Teacher:
- Female: 0.58***, 0.09
- 1-2 yrs: 0.49***, 0.15
- 3-4 yrs: 1.02***, 0.13
- 6-10 yrs: 0.70***, 0.10

N = 13,455; schools = 310

### YRBS Items on Virginia High School Survey

- During the past 30 days, on how many days did you have at least one drink of alcohol?
- During the past 30 days, how many times did you use marijuana?
- During the past 12 months, how many times were you in a physical fight on school property?
- During the past 30 days, on how many days did you carry a weapon such as a gun, knife, or club on school property?

### Multi-level Logistic Regressions for Weapon-Carrying and Fighting

<table>
<thead>
<tr>
<th>Variable</th>
<th>OR</th>
<th>LB</th>
<th>UB</th>
<th>OR</th>
<th>LB</th>
<th>UB</th>
</tr>
</thead>
<tbody>
<tr>
<td>School % FRPM</td>
<td>1.01</td>
<td>1.00</td>
<td>1.01</td>
<td>1.00</td>
<td>1.00</td>
<td>1.01</td>
</tr>
<tr>
<td>% Minority</td>
<td>0.99***</td>
<td>0.98</td>
<td>0.99</td>
<td>1.00***</td>
<td>0.99</td>
<td>1.00</td>
</tr>
<tr>
<td>Size (/100)</td>
<td>0.99</td>
<td>0.97</td>
<td>1.00</td>
<td>0.99***</td>
<td>0.97</td>
<td>1.00</td>
</tr>
<tr>
<td>ASC</td>
<td>0.96***</td>
<td>0.95</td>
<td>0.97</td>
<td>0.98***</td>
<td>0.97</td>
<td>0.99</td>
</tr>
</tbody>
</table>

Student:
- Black: 0.82*, 0.70, 0.96
- Asian: 1.46**, 1.13, 1.89
- Hispanic: 1.22*, 1.01, 1.47
- Other: 1.24*, 1.01, 1.51
- Female: 0.38***, 0.33, 0.42
- GPA: 0.63***, 0.77, 0.82
- Parental Ed: 0.94**, 0.90, 0.98

For Weapons, OR = .96, 1 SD increase in ASC is associated with 34% lower odds of carrying a weapon.

### Marijuana and Alcohol Use Past 30 Days

<table>
<thead>
<tr>
<th>Variable</th>
<th>OR</th>
<th>LB</th>
<th>UB</th>
<th>OR</th>
<th>LB</th>
<th>UB</th>
</tr>
</thead>
<tbody>
<tr>
<td>School % FRPM</td>
<td>1.00</td>
<td>0.99</td>
<td>1.00</td>
<td>1.00*</td>
<td>0.99</td>
<td>1.00</td>
</tr>
<tr>
<td>% Minority</td>
<td>1.00***</td>
<td>1.00</td>
<td>1.01</td>
<td>1.00</td>
<td>0.99</td>
<td>1.00</td>
</tr>
<tr>
<td>Size (/100)</td>
<td>1.00</td>
<td>0.99</td>
<td>1.01</td>
<td>0.99</td>
<td>0.99</td>
<td>1.00</td>
</tr>
<tr>
<td>ASC</td>
<td>0.98***</td>
<td>0.98</td>
<td>0.99</td>
<td>0.98***</td>
<td>0.98</td>
<td>0.99</td>
</tr>
</tbody>
</table>

Student:
- Black: 0.87***, 0.80, 0.94
- Asian: 0.63***, 0.53, 0.74
- Hispanic: 0.85***, 0.77, 0.94
- Other: 1.35***, 1.22, 1.49
- Female: 0.86***, 0.81, 0.91
- GPA: 0.79***, 0.77, 0.80
- Parental Ed: 0.96***, 0.94, 0.98

For both Marijuana and Alcohol, OR = .96, 1 SD increase in ASC is associated with 18% lower odds of use.

N = 48,027 students; schools = 323

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For Weapons, OR = .96, 1 SD increase in ASC is associated with 34% lower odds of carrying a weapon.

For Fighting, OR = .98, 1 SD increase in ASC is associated with 18% lower odds of fighting.

N = 48,027 students; schools = 323
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Teacher Reports of Student Aggression

<table>
<thead>
<tr>
<th>Event</th>
<th>Percent Happened At Least Once</th>
</tr>
</thead>
<tbody>
<tr>
<td>A student said rude or insulting things to me.</td>
<td>62</td>
</tr>
<tr>
<td>A student stole or damaged my personal property.</td>
<td>21</td>
</tr>
<tr>
<td>A student threatened to harm me.</td>
<td>10</td>
</tr>
<tr>
<td>A student physically attacked, pushed, or hit me.</td>
<td>4</td>
</tr>
<tr>
<td>A student threatened me with a weapon.</td>
<td>1</td>
</tr>
</tbody>
</table>

13,455 Teachers from 310 Virginia High Schools

Multi-level Linear Regression for Teacher Reports of Student Aggression

<table>
<thead>
<tr>
<th>Variable</th>
<th>b</th>
<th>SE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>5.87***</td>
<td>0.12</td>
</tr>
<tr>
<td>School Size (/100)</td>
<td>0.00</td>
<td>0.01</td>
</tr>
<tr>
<td>% FRPM</td>
<td>0.01***</td>
<td>0.00</td>
</tr>
<tr>
<td>% Minority</td>
<td>0.01***</td>
<td>0.00</td>
</tr>
<tr>
<td>ASC</td>
<td>-0.03***</td>
<td>0.00</td>
</tr>
<tr>
<td>Teacher Female</td>
<td>0.00</td>
<td>0.03</td>
</tr>
<tr>
<td>1-2 yrs exp</td>
<td>0.24***</td>
<td>0.05</td>
</tr>
<tr>
<td>3-4 yrs exp</td>
<td>0.33***</td>
<td>0.05</td>
</tr>
<tr>
<td>6-10 yrs exp</td>
<td>0.28***</td>
<td>0.04</td>
</tr>
</tbody>
</table>

N = 13,455. Schools = 310

Multi-level Linear Regression for Teacher Reports of Student Aggression

Variable b SE
Intercept 5.87*** 0.12
School Size (/100) 0.00 0.01
% FRPM 0.01*** 0.00
% Minority 0.01*** 0.00
ASC -0.03*** 0.00
Teacher Female 0.00 0.03
1-2 yrs exp 1 0.24*** 0.05
3-4 yrs exp 1 0.33*** 0.05
6-10 yrs exp 1 0.28*** 0.04

10+ years of experience is the reference group

1.2 million students in Virginia public schools

High School Racial Composition

Total Virginia high school enrollment 380,084 in 2013-2014

Virginia High School Suspension Rates

34,977 high school students suspended at least once in 2013-2014
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Schoolwide Suspension Rates

<table>
<thead>
<tr>
<th></th>
<th>White Students</th>
<th>Black Students</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

School-level Linear Regression for Black and White Suspension Rates

<table>
<thead>
<tr>
<th></th>
<th>Black Suspensions (n = 274)</th>
<th>White Suspensions (n = 338)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(3)</td>
<td>(4)</td>
</tr>
<tr>
<td>Intercept</td>
<td>2.62*** 0.04</td>
<td>7.93*** 0.24</td>
</tr>
<tr>
<td>% FRPM</td>
<td>0.02*** 0.00</td>
<td>0.01*** 0.00</td>
</tr>
<tr>
<td>% Minority</td>
<td>0.00 0.00</td>
<td>0.00 0.00</td>
</tr>
<tr>
<td>Size (/100)</td>
<td>-0.01 0.01</td>
<td>-0.01 0.01</td>
</tr>
<tr>
<td>ASC</td>
<td>-0.02*** 0.00</td>
<td>-0.11*** 0.03</td>
</tr>
<tr>
<td>R²</td>
<td>0.19 0.23</td>
<td>0.27 0.31</td>
</tr>
</tbody>
</table>

ASC Associated with Decrease in School Suspension Rates

<table>
<thead>
<tr>
<th>Overall Suspensions (n = 321)</th>
<th>(1)</th>
<th>(2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>10.18*** 0.27</td>
<td>10.15*** 0.26</td>
</tr>
<tr>
<td>% FRPM</td>
<td>0.14*** 0.02</td>
<td>0.12*** 0.02</td>
</tr>
<tr>
<td>% Minority</td>
<td>0.06*** 0.01</td>
<td>0.05*** 0.01</td>
</tr>
<tr>
<td>Size (/100)</td>
<td>-0.17*** 0.05</td>
<td>-0.16*** 0.05</td>
</tr>
<tr>
<td>ASC</td>
<td>-0.19*** 0.03</td>
<td>0.03</td>
</tr>
</tbody>
</table>

R² .40 .48

Schools with high structure and high support:

- Less fighting and weapon carrying
- Less alcohol and marijuana use
- Less teasing and bullying
- Teachers report less aggression by students
- Lower school suspensions
**Schools with high structure and high support:**

Findings are consistent across schools varying in
- School size
- Student poverty %
- Minority students %
- Urbanicity

**Virginia Youth Violence Project**

Virginia Secondary School Climate Study

In collaboration:
- Virginia Department of Education
- Virginia Department of Criminal Justice Services and Center for School Safety

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