



CURRY SCHOOL *and*
BATTEN SCHOOL
EdPolicyWorks

2019 VIRGINIA SCHOOL CLIMATE SURVEY: DESCRIPTIVE ANALYSIS OF STATEWIDE PATTERNS

Luke C. Miller, Ph.D.
lcm7t@virginia.edu
University of Virginia

EdPolicyWorks
School of Education and Human Development
Frank Batten School of Leadership and Public Policy
University of Virginia

For more information please visit curry.virginia.edu/edpolicyworks or
email us at EdPolicyWorks@virginia.edu

2019 Virginia School Climate Survey: Descriptive Analysis of Statewide Patterns

Luke C. Miller, Ph.D.
University of Virginia

1 March 2020

Purpose of this Report

This report presents the results of descriptive analyses of the 2019 Virginia School Climate Survey that captured how elementary school students in grades 4 and 5 and secondary school students in grades 9 through 12 perceived their schools' climate. Students responded to questions that mapped onto measures reflecting their engagement with school, their relationships with adults and other students, the schools' expectations for them, and how safe they felt at school. The analyses presented here explore how student perceptions of their schools' climate varied among different subgroups of students within the same school. Whereas education professionals, policymakers, and researchers often talk of each school as having a single climate that all students experience, results of surveys, like the 2019 Virginia School Climate Survey, have revealed meaningful differences among students in the same school in how they perceived their school's climate. Understanding these differences will help inform the efforts of schools and divisions to improve outcomes for the students they serve.

Background

A large body of research explores the connections between school climate and student educational outcomes. Academic expectations, student-teacher relationships, student engagement, disciplinary rules, and safety are some of the dimensions of school climate this literature has shown are predictive of student educational outcomes such as academic achievement (Brand, Felner, Shim, Seitsinger, & Dumas, 2003; Cornell, Shukla, & Konold, 2016; Lee & Smith, 1999; MacNeil, Prater, & Busch, 2009), dropout (Croninger & Lee, 2001; Pellerin, 2005), absenteeism and truancy (Pellerin, 2005), suspension (Wu, Pink, Crain, & Moles, 1982; Lee, Cornell, Gregory, & Fan, 2011), substance abuse (Fletcher et al., 2008), and aggressive behavior (Hawkins et al., 2014; Henrich et al., 2005). Together these dimensions characterize the social and emotional conditions of the environment in which teachers teach and students learn.

In 2016, the Board of Education (the Board), aware of this research showing the positive links between a healthy school climate and student educational outcomes, discussed the possibility of incorporating data on school climate data into the School Quality Profiles and accountability systems. The Board ultimately tabled this discussion because they lacked access to rich, large-scale data on many of the key dimensions of school climate known to be important to student growth and outcomes. Instead, they requested that the Virginia Department of Education (VDOE) explore ways of collecting reliable, valid, and statewide data on school climate. VDOE, in response, partnered with the University of Virginia (UVA) to design and administer the 2019 Virginia School Climate Survey.

Since 2013, the Virginia Department of Criminal Justices Services (DCJS) has administered a school safety survey in middle and high schools in alternating years. The survey also included measures of school climate more broadly. Building on this successful effort, VDOE and UVA revised the DCJS survey to better align with the data needs of the Board, VDOE, and school divisions. In early 2018, the draft survey was circulated to all 132 divisions so as to elicit their feedback on the appropriateness of the topics, the wording of the questions, and the planned administration procedures. Sixty-eight (52%) divisions responded. The final 2019 Virginia School Climate Survey reflected their comments.

Survey, Sample, and Measures

The 2019 Virginia School Climate Survey captured four dimensions of school climate: Engagement, Relationships, Expectations, and Safety. The questions under each domain were mapped onto specific measures of that domain. All questions used the same four-point response scheme: strongly disagree, disagree, agree, and strongly agree. We developed separate surveys for elementary school students in grades 4 and 5 and for secondary school students in grades 9 through 12. The Engagement domain included measures of overall engagement for elementary school students and measures of emotional and academic engagement for secondary school students. Under the Relationships domain, both groups of students were asked questions that measured their relationships with other students, their relationships with adults, and their social-emotional learning. Secondary school students were also asked questions about their cultural and linguistic competence. The surveys asked both groups about their school's Expectations for their academic achievement and behavior. Under the Safety domain, students indicated how safe they felt at school and about the prevalence of bullying in the school. The wording of each question is provided in Table A1 in the appendix.

All surveys were completed online over a three-month period between January 7 and March 29, 2019. Students completed the surveys anonymously using a school-specific password to access the survey. These passwords enabled us to link each survey to a specific school. We provided each school with an instruction packet detailing how to administer the surveys in their school. Principals (or their designee) selected a three-week window during which their students would complete the survey. VDOE staff conducted outreach to schools to encourage the schools' participation and high response rates among students. School and student participation were voluntary.

School Participation Rates

In the end, 696 elementary schools serving grades 4 or 5 and 214 secondary schools serving any grade 9 through 12 participated (62 and 67%, respectively). School participation rates varied across the divisions with no schools participating in a number of divisions (see Figure 1).¹ On both surveys, school participation was the lowest in Region 4 (43 and 51% on

¹ Divisions not participating in the elementary school survey were Charles City, Henrico, Surry, and Sussex in Region 1; Chesapeake, Northampton, Poquoson, Williamsburg-James City, and York in Region 2; King William, Lancaster, Northumberland, and Spotsylvania in Region 3; Alexandria, Arlington, Clark, Fairfax, Manassas Park, and Orange in Region 4; Highland and Lexington in Region 5; Covington in Region 6; Tazewell in Region 7; and Halifax in Region 8. Divisions not participating in the high school survey were Colonial Heights, Henrico, Petersburg, and Surry in Region 1; Chesapeake, Newport News, Northampton, and Williamsburg-

the elementary and secondary school surveys, respectively). Region 6 had the highest school participation rate on the elementary school survey, and Region 8 had the highest on the secondary school survey (both 88%) (see Table A2 in the appendix).

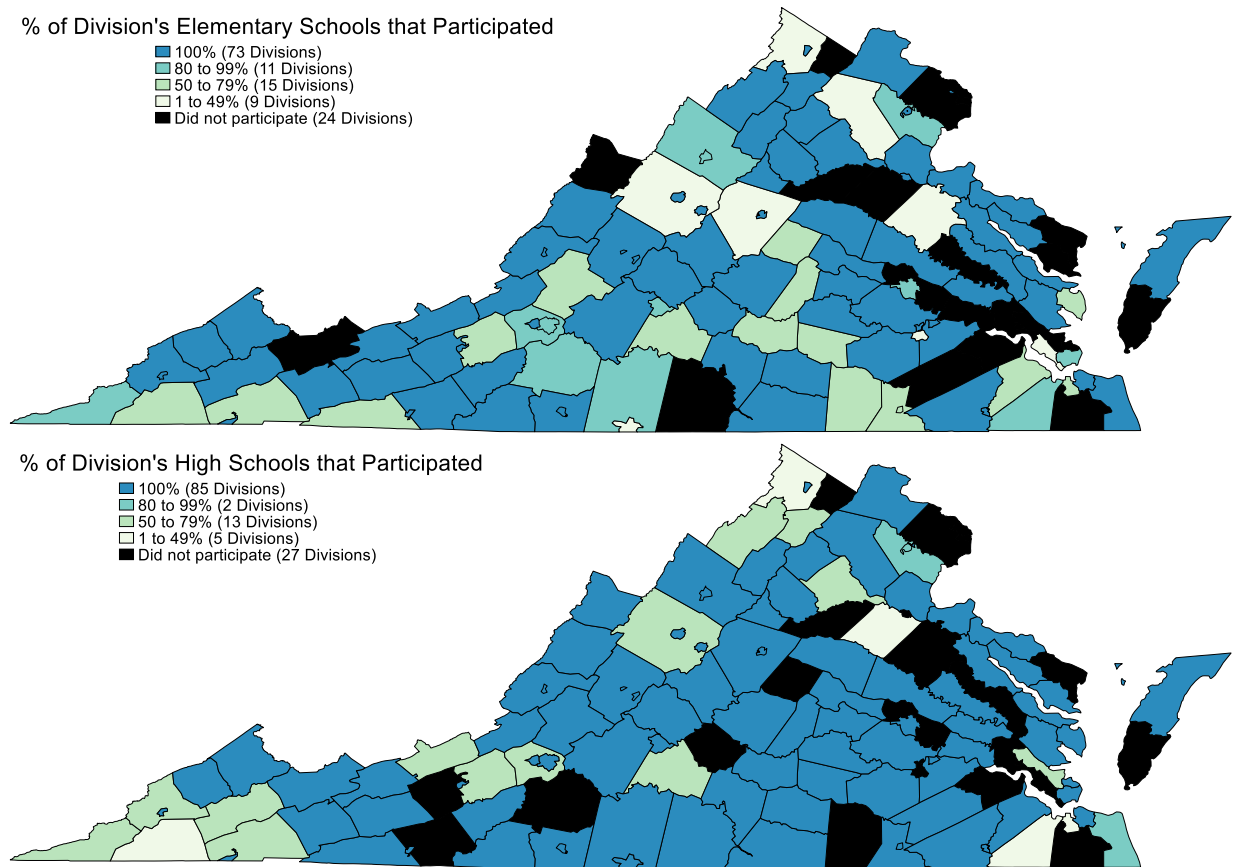


Figure 1. School Participation Rates by Survey and Division

Given that roughly a third of all schools and some of Virginia's largest divisions did not participate, we assessed how the participating schools differed from the non-participating schools (Table 1). The more these two groups of schools differ the less representative are the responding students of all students in Virginia. Among both elementary and secondary schools, schools participating were, on average, relative to non-participating schools smaller, had lower concentrations of Hispanic and Other Race students and higher concentrations of White students, had higher concentrations of economically disadvantaged students, had lower concentrations of English Learners and disabled students, were more likely to be rural and less likely to be suburban schools, and less likely to be located in Regions 4 and 5. Participating elementary schools were also more likely to be town or city schools and more likely to be

James City in Region 2; Caroline, Fredericksburg, King and Queen, and Northumberland in Region 3; Alexandria, Arlington, Clark, Fairfax, Falls Church, Manassas, and Orange in Region 4; Fluvanna in Region 5; Covington, Franklin, and Martinsville in Region 6; Carroll and Pulaski in Region 7; and Appomattox and Brunswick in Region 8.

located in Regions 6 and 7 than non-participating elementary schools. The two groups of schools did not differ on SOL passage rates.

Table 1. Comparison of Participating and Non-Participating Elementary Schools

	Elementary Schools, Grades 4-5					Secondary Schools, Grades 9-12				
	Non-Participant		Participant		Diff.	Non-Participant		Participant		Diff.
	Mean	SD	Mean	SD		Mean	SD	Mean	SD	
Student Body Characteristics										
Enrollment	579.8	191.6	511.7	213.1	Yes	1522.0	862.6	1098.9	637.9	Yes
% Black	21.0	22.9	22.3	23.9		23.1	24.0	21.2	22.1	
% Hispanic	18.4	17.0	13.5	15.5	Yes	14.7	14.6	9.9	11.5	Yes
% White	45.3	24.5	54.1	28.7	Yes	50.5	26.1	60.9	26.7	Yes
% Other Race	15.3	11.6	10.2	8.6	Yes	11.8	9.0	8.0	7.2	Yes
% ED	42.2	23.5	47.2	19.7	Yes	39.0	17.9	40.8	18.2	Yes
% EL	18.9	20.4	9.4	14.6	Yes	9.3	13.9	3.9	6.8	Yes
% Disabled	13.6	4.1	12.9	3.6	Yes	14.0	3.5	13.0	3.9	Yes
SOL Pass Rates 2017-18 (%)										
History	84.9	11.5	85.0	12.6		83.6	9.1	82.1	9.0	
Mathematics	76.7	12.3	77.3	11.2		79.1	9.1	77.7	10.6	
Reading	75.7	12.2	76.8	10.8		85.4	7.2	84.8	14.6	
Science	78.7	11.8	79.5	13.6		83.4	8.2	82.2	9.2	
Location of School (%)										
Rural	21.3	41.0	35.6	47.9	Yes	28.3	45.3	44.9	49.9	Yes
Town	4.4	20.6	8.2	27.4	Yes	11.3	31.8	13.1	33.8	
Suburb	53.6	49.9	29.0	45.4	Yes	45.3	50.0	23.4	42.4	Yes
City	20.6	40.5	27.2	44.5	Yes	15.1	36.0	18.7	39.1	
Region 1	12.4	33.0	14.5	35.2		11.3	31.8	14.0	34.8	
Region 2	18.0	38.5	18.8	39.1		22.6	42.0	15.4	36.2	
Region 3	5.4	22.6	5.3	22.5		7.5	26.5	7.9	27.1	
Region 4	47.5	50.0	22.1	41.5	Yes	36.8	48.5	19.2	39.4	Yes
Region 5	7.5	26.4	11.8	32.3	Yes	3.8	19.1	14.0	34.8	Yes
Region 6	3.0	17.2	13.4	34.0	Yes	7.5	26.5	10.3	30.4	
Region 7	3.3	17.8	11.1	31.4	Yes	8.5	28.0	14.0	34.8	
Region 8	2.8	16.5	3.0	17.1		1.9	13.7	5.1	22.1	

Note: SD = Standard Deviation; Diff indicates participating schools are statistically different than non-participating schools at the 5% level; ED = Economically Disadvantaged; EL = English Learners

Student Response Rates

Among the participating schools, 84% of elementary school students completed a survey as did 61% of secondary school students (96,320 elementary and 140,675 secondary school students). Schools were asked to have at least 80% of their students complete the

survey. A majority (65%) of participating elementary schools reached this while only 20% of secondary schools did. Anecdotal reports from secondary schools indicated that some struggled to find a time within students' schedules for them to have access to a computer to complete the survey.

Student response rates varied across divisions (Figure 2). Seventy-two divisions had at least 80% of their elementary school students complete a survey. At least half of the students in all but two participating divisions responded. The comparable rates among high school students are substantially lower. Only 19 divisions had a division-wide response rate of at least 80%, and 28 participating divisions had a response rate below 50%.

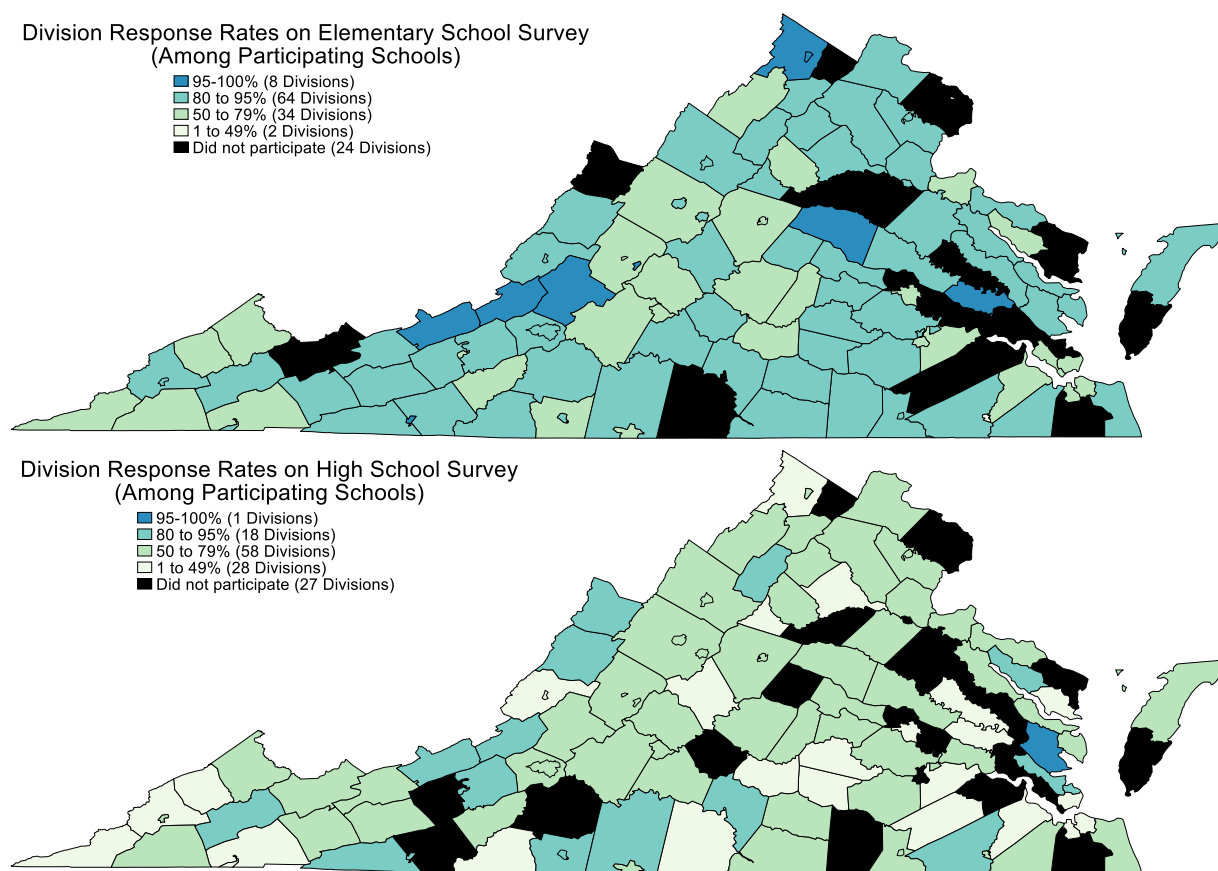


Figure 2. Student Response Rates by Survey and Division

The surveys each included a set of demographic questions that asked the students about their grade, gender, race, disability status, and post-graduation plans (Table 2). Among the elementary school students who responded to the survey, 49% were 4th graders and 51% were 5th graders. They were evenly split between boys and girls while 42% indicated they were White. Among secondary school students, the sample is skewed toward 9th graders (28.6%) with 21.0% being 12th graders. There were more female respondents than male respondents (51.5 versus 48.5%) and 62.6% were White. Just under 12% indicated they had a disability (i.e., either had an IEP or a Section 504 plan). The majority of secondary school respondents (62%) stated they plan to attend a 4-year college after graduation while 7.6% had no plans.

Table 2. Characteristics of the Student Sample by Elementary and Secondary Schools

	Elementary School Students, Grades 4-5	Secondary School Students, Grades 9-12
N	96,320	140,675
Grade		
Grade 4	49.0	
Grade 5	51.0	
Grade 9		28.6
Grade 10		25.8
Grade 11		24.3
Grade 12		21.0
Unknown		0.2
Gender		
Boy	50.0	48.5
Girl	50.0	51.5
Race		
Black	17.2	15.5
Hispanic	17.6	16.7
Multi Race	12.3	9.9
Other Race	10.9	8.1
White	42.0	62.6
Disability Status ^a		
Disabled		11.6
Not Disabled		88.4
Post-Graduation Plans		
No Plans		7.6
Enter the Workforce		4.0
Join the Military		6.3
Attend a Business or Tech School, Pursue an Apprenticeship, or Other Educational Opportunity		8.9
Attend a 2-year College		11.2
Attend a 4-year College		62.0

^a Students who indicated they had an IEP or a Section 504 plan were identified as students with disabilities.

Measures

We conducted exploratory and confirmatory factor analyses to determine how the survey items loaded onto separate measures of school climate. The resulting measures by and large aligned with the measures theorized during the survey design. We identified eight measures for elementary school students and ten for secondary school students (Table 3). The Cronbach Reliability Alphas for all but one measure (behavioral expectations for elementary

school students) exceeded the 0.7 threshold for sufficient reliability. The factor loadings for all items well-exceeded the 0.3 threshold for sufficient construct validity. We created each of these identified measures by simply averaging the loaded items together assigning responses values of 1 (strongly disagree) to 4 (strongly agree). The Prevalence of Bullying measure was reverse-coded so that, like all the other measures, higher values indicate healthier school climate.

Additional factor analysis on these measures determined that all but the Prevalence of Bullying measure loaded onto a single measure. To create this overall school climate measure, we standardized each of the component measures and then averaged them together.

Table 3. Psychometric Properties of School Climate Measures

	Elementary School Grades 4-5			Secondary School Grades 9-12		
	# Items	Reliability	Factor Loadings	# Items	Reliability	Factor Loadings
Overall	7	0.883	0.709–0.841	9	0.908	0.675–0.827
Engagement						
Engagement Overall	7	0.807	0.597–0.777			
Emotional Engagement				4	0.841	0.690–0.880
Academic Engagement				4	0.752	0.727–0.795
Relationships						
Student with Students	4	0.766	0.668–0.813	4	0.830	0.769–0.846
Student with Adults	8	0.867	0.629–0.779	8	0.916	0.729–0.843
Social-Emotional Learning	5	0.764	0.631–0.787	5	0.799	0.679–0.800
Cultural & Linguistic Competence				5	0.848	0.683–0.862
Expectations						
Academic Expectations	6	0.722	0.585–0.697	7	0.878	0.724–0.796
Behavioral Expectations	4	0.645	0.667–0.744	5	0.774	0.665–0.760
Safety						
Feel Safe	2	0.701	n/a	2	0.722	n/a
Prevalence of Bullying *	4	0.833	0.785–0.843	5	0.895	0.811–0.858

Results

Students on average felt positively about their schools' climate (i.e., responses greater than 2.5), although elementary school students were more positive than secondary school students (Table 4). Elementary school students were most positive about their schools' expectations for how they were to behave at school whereas secondary school students were most positive about their academic engagement. Both groups were least positive about the prevalence of bullying in their schools with 32 and 44% of elementary and secondary students, respectively, feeling negatively. There was substantial variation across students in their perceptions of their schools' climate with standard deviations ranging from 0.50 to 0.88.

Table 4. School Climate Measures, Statewide Results

	Elementary School Grades 4-5			Secondary School Grades 9-12		
	<i>Mean</i>	<i>SD</i>	<i>% Negative</i>	<i>Mean</i>	<i>SD</i>	<i>% Negative</i>
Engagement						
Engagement Overall	3.34	0.50	5.8	n/a		n/a
Emotional Engagement	n/a		n/a	2.78	0.68	23.8
Academic Engagement	n/a		n/a	3.07	0.56	9.5
Relationships						
Student with Students	3.15	0.58	9.5	2.94	0.60	14.0
Student with Adults	3.38	0.52	4.8	2.93	0.61	16.3
Social-Emotional Learning	3.09	0.59	14.8	3.05	0.55	12.5
Cultural & Linguistic Competence	n/a		n/a	2.98	0.63	17.2
Expectations						
Academic Expectations	3.20	0.50	5.9	2.92	0.56	17.2
Behavioral Expectations	3.42	0.51	3.2	2.84	0.61	25.8
Safety						
Feel Safe	3.38	0.70	6.9	2.96	0.69	13.1
Prevalence of Bullying *	2.77	0.88	32.1	2.57	0.76	43.8

Note. SD = Standard deviation

* Reserve-coded

It is common for student survey responses to be aggregated to the school level in order to explore how climate varies across schools. Variance decomposition, however, revealed that such an approach ignores the great majority of the variation in student perceptions of school climate (Table 5). Across the measures, between 93 and 98% of the total variation was among students within the same school with only between 2 and 6% between schools within a division. The remainder of the variation was across divisions. This suggests that efforts to improve student outcomes by making schools' climate healthier should target specific students within schools rather than all students in specific schools.

Table 5. Variance Decomposition of School Climate Measures

	Elementary School Grades 4-5			Secondary School Grades 9-12		
	<i>Student</i>	<i>School</i>	<i>Division</i>	<i>Student</i>	<i>School</i>	<i>Division</i>
Overall School Climate	93.5	4.1	2.4	95.0	3.9	1.2
Engagement						
Engagement Overall	94.4	3.9	1.6			
Emotional Engagement				92.5	5.9	1.6
Academic Engagement				98.4	0.8	0.8
Relationships						
Student with Students	93.3	3.4	3.4	96.7	2.2	1.0
Student with Adults	96.5	2.5	1.0	97.0	2.3	0.8
Social-Emotional Learning	95.8	2.5	1.7	97.3	1.6	1.1
Cultural & Linguistic Competence				97.0	2.4	0.6
Expectations						
Academic Expectations	96.5	2.8	0.8	96.8	2.5	0.7
Behavioral Expectations	97.4	2.0	0.6	96.9	1.8	1.3
Safety						
Feel Safe	94.9	3.1	2.0	93.6	4.3	2.1
Prevalence of Bullying *	85.7	8.5	5.8	94.5	3.5	1.9

* Reserve-coded

The fact that almost all the variation in the school climate measures was among students within the same school begged the question: which groups of students felt more positively than others? The survey data allowed us to explore this along five student characteristics: grade, gender, and race, and for secondary students only, disability status and their post-graduation plans. To calculate student subgroup means that relied solely on comparisons within (not across) schools, we estimated simple regressions that regressed a school climate measure on one of the five student characteristics and school fixed effects. An example is given in equation 1 which assessed the difference in perceptions of emotional engagement between male and female in secondary schools.

$$(1) \quad EmotEng_{is} = \beta_1 Male_{is} + \beta_2 Female_{is} + \alpha_s + \varepsilon_{is}$$

This model predicted the perceptions about emotional engagement of student i attending school s as a function of the student's gender and the school he or she attended (α_s). We suppressed the constant term so that β_1 was the average emotional engagement score among males and β_2 was the average emotional engagement score among females controlling for differences in emotional engagement scores across schools (α_s). We then conducted a post-estimation test on the equivalence of β_1 and β_2 to test whether the two groups' perceptions differed significantly from each other.

To aide in interpretation, we standardized each school climate measures. This allowed us to talk about subgroup differences in terms of effect sizes (i.e., standard deviation units). Following well-established rules of thumb, we interpreted differences 0.8 or greater as large, differences greater than 0.5 as moderate, and differences greater than 0.2 as small. We interpreted differences less than 0.2 as trivial.

Differences in Perceptions of School Climate Overall

Most differences in perceptions of overall school climate were trivial in size including all differences across grades, gender, and disability status (Figure 3). Among secondary students, Hispanic students felt less positively about their schools' climate than did White students (effect size 0.205). None of the differences across student race among elementary school students were greater than 0.2.

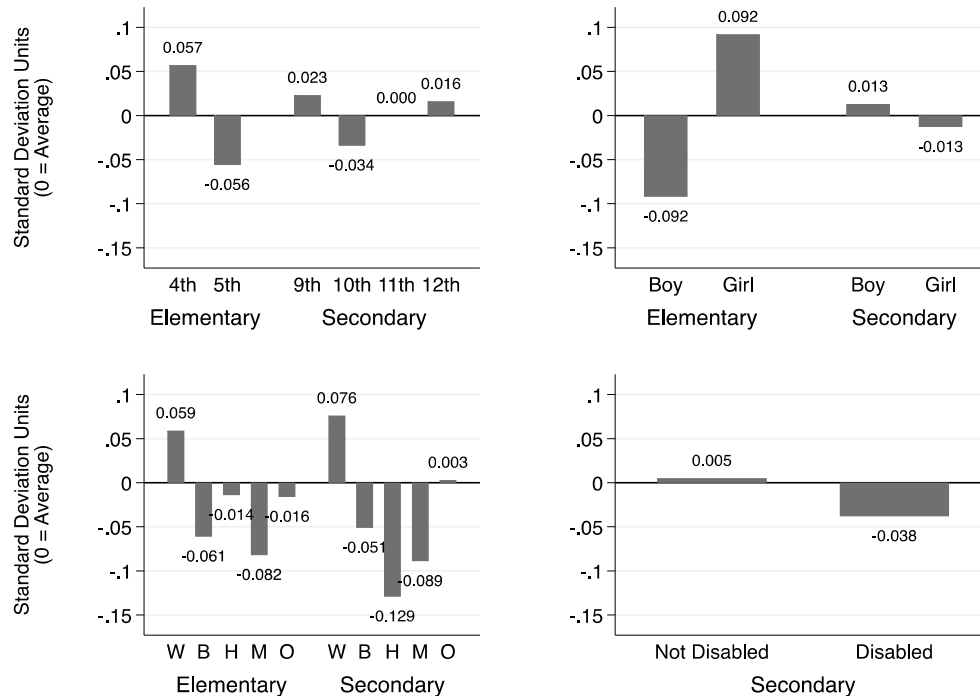


Figure 3. Within-school Perceptions of Overall School Climate across Student Grade, Gender, Race, and Disability Status, Standardized

The largest differences were among secondary school students with different post-graduation plans (Figure 4). Students with no plans were much less positive than students intending to attend a 4-year college (effect size 0.509), attend a 2-year college (effect size 0.358), attend a business or technical program, apprenticeship, or other educational opportunity (effect size 0.272). Similarly, students who planned on entering the workforce and joining the military were less positive than students who expected to attend a 4-year college (effect sizes 0.342 and 0.237, respectively).

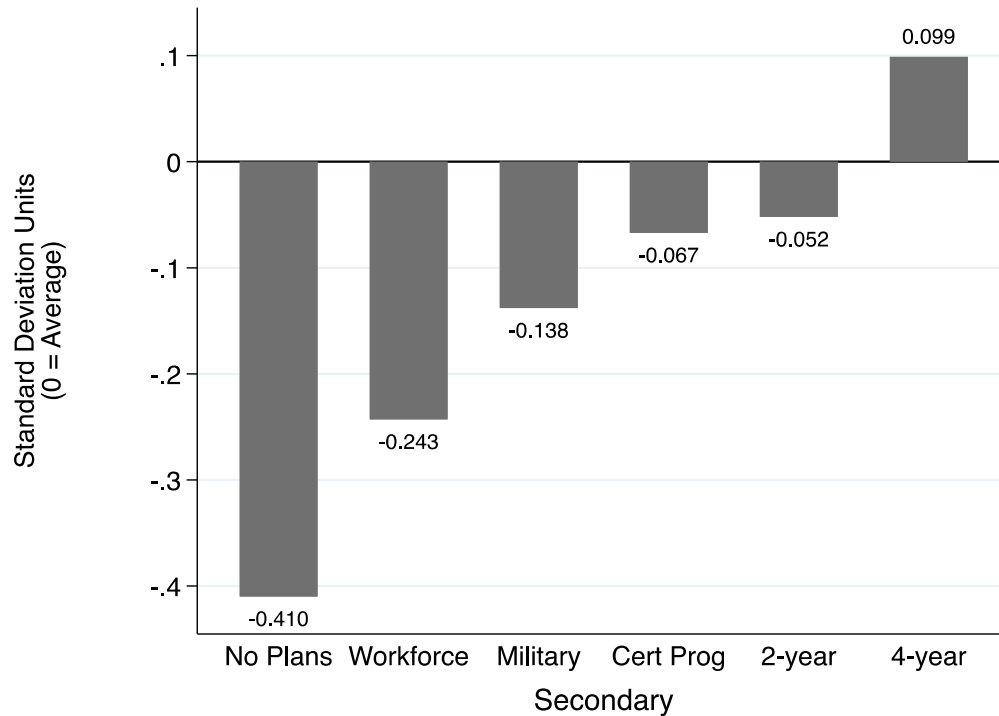


Figure 4. Within-school Perceptions of Overall School Climate across Student Post-Graduation Plans, Standardized

Differences in Student Perceptions by Grade

Save for one comparison, elementary and secondary school students' perceptions of the various dimensions of their school climate did not differ meaningfully across grades (effect sizes less than 0.2) (Table 6). The exception was secondary students' perceptions of their social-emotional learning (SEL). Ninth graders expressed lower levels of SEL skills than did 12th graders (effect size 0.219).

Table 6. Within-school Perceptions of School Climate by Measure and Grade, Standardized

	Elementary Schools		Secondary Schools			
	4 th	5 th	9 th	10 th	11 th	12 th
School Climate	0.057	-0.056	0.023	-0.034	0.000	0.016
Engagement	0.074	-0.071				
Emotional Engagement			0.075	-0.021	-0.033	-0.031
Academic Engagement			0.056	-0.004	-0.004	-0.060
Student with Students	0.045	-0.043	0.028	-0.027	-0.001	0.004
Student with Adults	0.071	-0.068	-0.005	-0.061	0.012	0.077
Social-Emotional Learning	0.035	-0.034	-0.096	-0.039	0.053	0.123
Cultural & Linguistic Competence			0.082	-0.023	-0.026	-0.044
Academic Expectations	0.052	-0.049	0.020	-0.041	0.008	0.020
Behavioral Expectations	0.076	-0.073	0.055	-0.031	-0.018	-0.010
Feel Safe	0.052	-0.050	-0.005	-0.054	0.015	0.064
Prevalence of Bullying *	-0.047	0.046	-0.005	-0.031	0.008	0.035

* Reverse-coded

Differences in Perceptions by Gender

Boys and girls differed meaningfully in their perceptions of 5 dimensions of their school climate (Table 7). Among elementary school students, boys reported being less engaged, having lower SEL skills, and feeling lower expectations for their behavior than girls (effect sizes 0.209, 0.290, and 0.259, respectively). Among secondary school students, boys reported being less engaged academically than girls (effect size 0.204) and being aware of fewer instances of bullying than girls (effect size 0.299).

Table 7. Within-school Perceptions of School Climate by Measure and Gender, Standardized

	Elementary School Grades 4-5		Secondary School Grades 9-12	
	<i>Boy</i>	<i>Girl</i>	<i>Boy</i>	<i>Girl</i>
School Climate	-0.092	0.092	0.013	-0.013
Engagement	-0.104	0.105		
Emotional Engagement			0.045	-0.043
Academic Engagement			-0.104	0.100
Student with Students	-0.066	0.066	0.027	-0.026
Student with Adults	-0.081	0.081	0.027	-0.027
Social-Emotional Learning	-0.145	0.145	-0.029	0.027
Cultural & Linguistic Competence			0.074	-0.071
Academic Expectations	-0.074	0.073	-0.009	0.008
Behavioral Expectations	-0.130	0.129	0.023	-0.021
Feel Safe	-0.043	0.043	0.066	-0.063
Prevalence of Bullying *	0.043	-0.043	0.153	-0.146

* Reverse-coded

Differences in Perceptions by Race

Among the meaningful differences across race (effect sizes of at least .2), white students felt more positively about dimensions of school climate than other students (Table 8). Among elementary school students, White students indicated they had better relationships with other students and SEL skills and felt bullying was less prevalent than Black students (effect sizes 0.203 and 0.244, respectively). There were more meaningful differences across race at the secondary school level. White students indicated they were more emotionally engaged than Black students (effect size 0.201) and had better relationships with other students and other adults at school than Hispanic students (effect sizes 0.257 and 0.201, respectively). Additionally, White students felt they had better SEL skills than Black and Hispanic students (effect sizes 0.214 and 0.315, respectively). When asked to assess the cultural and linguistic competence of all students at their school, White students reported greater competence than Black, Hispanic, and multi-racial students (effect sizes 0.214, 0.330, and 0.223, respectively). Finally, White students felt safer at school than Hispanic and multi-racial students (effect sizes 0.226 and 0.200, respectively).

Table 8. Within-school Perceptions of School Climate by Measure and Race, Standardized

	Elementary School, Grades 4-5					Secondary School, Grades 9-12				
	<i>White</i>	<i>Black</i>	<i>His-panic</i>	<i>Multi-Racial</i>	<i>Other Race</i>	<i>White</i>	<i>Black</i>	<i>His-panic</i>	<i>Multi-Racial</i>	<i>Other Race</i>
School Climate	0.059	-0.061	-0.014	-0.082	-0.016	0.076	-0.051	-0.129	-0.089	0.003
Engagement	0.047	-0.054	-0.006	-0.077	0.002					
Emotional Engagement						0.087	-0.114	-0.102	-0.091	0.011
Academic Engagement						0.032	0.027	-0.112	-0.059	0.050
Student with Students	0.087	-0.116	-0.017	-0.064	-0.050	0.098	-0.093	-0.159	-0.056	-0.023
Student with Adults	0.067	-0.047	-0.026	-0.105	-0.019	0.070	-0.027	-0.131	-0.101	0.012
Social-Emotional Learning	0.092	-0.152	-0.012	-0.066	-0.020	0.118	-0.096	-0.197	-0.080	-0.032
Cultural & Linguistic Competence						0.109	-0.105	-0.133	-0.114	-0.053
Academic Expectations	0.001	0.046	0.012	-0.071	-0.019	0.050	0.016	-0.125	-0.072	0.016
Behavioral Expectations	0.054	-0.059	-0.019	-0.082	0.006	0.034	-0.010	-0.063	-0.111	0.076
Feel Safe	0.065	-0.044	-0.031	-0.106	-0.011	0.090	-0.056	-0.136	-0.110	-0.025
Prevalence of Bullying*	0.103	-0.103	-0.073	-0.034	-0.082	0.053	-0.065	-0.041	-0.074	-0.021

* Reverse-coded

Differences in Perceptions by Disability Status

The only meaningful difference between secondary school students with and without disabilities is with respect to their SEL skills (Table 9). Students with disabilities reported having less developed SEL skills than students without disabilities (effect size 0.209).

Table 9. Within-school Perceptions of School Climate by Measure and Disability Status, Standardized

	Secondary School Students	
	<i>Students with Disabilities</i>	<i>Students Without Disabilities</i>
School Climate	-0.038	0.005
Emotional Engagement	-0.042	0.006
Academic Engagement	-0.044	0.006
Student with Students	-0.120	0.016
Student with Adults	0.052	-0.007
Social-Emotional Learning	-0.185	0.024
Cultural & Linguistic Competence	-0.008	0.001
Academic Expectations	0.004	0.000
Behavioral Expectations	0.065	-0.009
Feel Safe	-0.062	0.008
Prevalence of Bullying *	-0.123	0.016

* Reverse-coded

Differences in Perceptions by Post-Graduation Plans

There were meaningful differences in secondary school students' perceptions of all dimensions of school climate across students' post-graduation plans, except for the prevalence of bullying (Table 10). Students planning on attending a 4-year college expressed the most positive perceptions while students with no plans had the least positive perceptions. In fact, the perceptions of students with no plans were always meaningfully less positive than students planning on attending a 4-year college, a 2-year college, or a business/technical school, apprenticeship or other educational opportunity (effect sizes greater than or equal to 0.2). They were also meaningfully less positive than those of students intending to join the military on all dimensions except for behavioral expectations. Students planning on entering the workforce reported the second least positive school climate after students with no plans. Their perceptions were meaningfully lower than students that intended to attend a 4-year college on all but the Cultural and Linguistic Competence measure.

Table 10. Within-school Perceptions of School Climate by Measure and Post-Graduation Plans, Standardized

	Secondary School Students					
	<i>Attend a 4-year College</i>	<i>Attend a 2-year College</i>	<i>Attend a Business or Tech School, Pursue an Apprenticeship, or Other Educational Opportunity</i>	<i>Join the Military</i>	<i>Enter the Workforce</i>	<i>No Plans</i>
School Climate	0.099	-0.052	-0.067	-0.138	-0.243	-0.410
Emotional Engagement	0.102	-0.084	-0.073	-0.114	-0.242	-0.396
Academic Engagement	0.159	-0.091	-0.097	-0.213	-0.463	-0.634
Student with Students	0.121	-0.115	-0.088	-0.181	-0.255	-0.430
Student with Adults	0.087	-0.007	-0.068	-0.131	-0.223	-0.401
Social-Emotional Learning	0.141	-0.114	-0.103	-0.214	-0.311	-0.521
Cultural & Linguistic Competence	0.051	-0.007	-0.027	-0.033	-0.140	-0.266
Academic Expectations	0.095	-0.033	-0.055	-0.136	-0.239	-0.428
Behavioral Expectations	0.056	0.030	-0.031	-0.103	-0.165	-0.289
Feel Safe	0.079	-0.051	-0.064	-0.112	-0.150	-0.328
Prevalence of Bullying *	0.023	-0.062	-0.028	-0.027	-0.002	-0.045

* Reverse-coded

Conclusion

This report presented the results of a descriptive analysis of elementary school (grades 4 and 5) and secondary school (grades 9 through 12) students to the 2019 Virginia School Climate Survey which VDOE and UVA administered between January and March 2019. On average, students felt positively about their school's climate. They expressed the greatest concern about the prevalence of bullying in their schools.

Across race and post-graduation plans, students perceived their schools' climate quite differently. White students were more positive than Black and Hispanic students in their same schools. Students planning to attend a 4-year college were the most positive while students who planned to either enter the workforce or had no plans were the least positive, again comparing students within the same school.

Given the lower-than-preferred student response rate (particularly among secondary school students) and the differences between participating and non-participating schools, some care should be taken when extrapolating these findings from the survey sample to all students in all Virginia public schools.

APPENDIX

Table A1. Mapping of survey items onto school climate measures for elementary and secondary school students

Survey Item	Elementary School Students, Grades 4-5	Secondary School Students, Grades 9-12
Engagement		
I like this school.	Engagement	Emotional
I am proud to be a student at this school.	Engagement	Emotional
I feel like I belong at this school.	Engagement	Emotional
I get to do interesting activities at school.	Engagement	Emotional
I want to learn as much as I can at school.	Engagement	Academic
I learn about important things at school.	Engagement	Academic
It is important that I come to school every day.	Engagement	Academic
I usually work hard on my schoolwork.		Academic
Relationships		
I care about other students at this school.	Student with Students	
I get along well with other students at this school.	Student with Students	
Other students at this school care about me.	Student with Students	
Other students at this school get along well with me.	Student with Students	
Teachers and other adults at this school care about me.	Student with Adults	
Teachers and other adults at this school want me to succeed.	Student with Adults	
Teachers and other adults at this school listen to what I have to say.	Student with Adults	
Teachers and other adults at this school treat me with respect.	Student with Adults	
There are teachers or other adults at this school I could talk with if I needed help with something.	Student with Adults	
I am comfortable asking teachers or other adults at this school for help with my schoolwork.	Student with Adults	
I am comfortable asking teachers or other adults at this school for help to solve a problem I am having with another student.	Student with Adults	
Teachers and other adults at this school will help me if I have a problem.	Student with Adults	
I stop and think before doing anything when I get angry.	Social-Emotional Learning	
I work out disagreements with other students by talking with them.	Social-Emotional Learning	
I know how to disagree without starting an argument or a fight.	Social-Emotional Learning	
I know how to decide right from wrong.	Social-Emotional Learning	
I can control myself when I am upset.	Social-Emotional Learning	
All students have access to the same learning opportunities, regardless of whether they are rich or poor.		CLC
All students have access to the same learning opportunities, regardless of their gender.		CLC
All students have access to the same learning opportunities, regardless of their race or ethnicity.		CLC

Table A1. Mapping of survey items onto school climate measures for elementary and secondary school students

Survey Item	Elementary School Students, Grades 4-5	Secondary School Students, Grades 9-12
The things I learn at this school reflect multiple cultural backgrounds, ethnicities, and identities.		CLC
Everyone at this school shows respect for the cultural beliefs, languages, and practices of others.		CLC
Expectations		
Teachers and other adults at this school challenge me academically.	Academic	
Teachers and other adults at this school ask me to think about different ways to solve problems.	Academic	
Teachers and other adults at this school often connect what I am learning to life outside the classroom.	Academic	
Teachers and other adults at this school expect me to explain my answer to a question.	Academic	
Teachers and other adults at this school expect me to use facts and evidence to support my ideas.		Academic
I work on projects with other students in my class.	Academic	
Teachers and other adults at this school encourage me to provide helpful feedback to others.		Academic
Teachers and other adults at this school ask me to talk about what I am learning.	Academic	
Teachers and other adults at this school encourage me to share my ideas about what I am studying in class.		Academic
Teachers and other adults at this school expect me to continue to learn new things after high school.		Academic
I am recognized for my positive behavior.	Behavioral	
I know the difference between good and bad behavior.	Behavioral	
I know which behaviors my school views as inappropriate.		Behavioral
I know what will happen if I break a school rule.	Behavioral	
The consequences for breaking school rules are the same for all students.		Behavioral
The school rules are fair.	Behavioral	
The consequences for breaking school rules are the same for all students.		Behavioral
When students are accused of doing something wrong, they get a chance to explain.		Behavioral
Safety		
I feel safe at this school.	Feeling Safe	
I feel safe traveling between my home and this school.	Feeling Safe	
Bullying is a problem at this school.	Prevalence of Bullying	
Students at this school are bullied about their disability.	Prevalence of Bullying	
Students at this school are bullied about their clothing or how they look.	PB	
Students at this school are bullied about their clothing or physical appearance.		PB

Table A1. Mapping of survey items onto school climate measures for elementary and secondary school students

Survey Item	Elementary School Students, Grades 4-5	Secondary School Students, Grades 9-12
Students at this school are bullied about their race.	PB	
Students at this school are bullied about their race or ethnicity.		PB
Students at this school are bullied about their sexual orientation.		PB

Note. CLC = Cultural and Linguistic Competence, PB = Prevalence of Bullying

Note. All questions used the same four-category response scale: strongly disagree, disagree, agree, strongly agree.

Table A2. School participation and student response rates by region and statewide

Region	School Participation Rates		Student Response Rates among Participating Schools		Student Response Rates among All Schools	
	Elementary	Secondary	Elementary	Secondary	Elementary	Secondary
1	65.6	71.4	81.1	56.7	56.4	38.6
2	63.0	57.9	78.2	58.0	44.1	33.8
3	61.7	68.0	86.4	71.7	54.2	46.9
4	43.1	51.2	87.0	60.9	38.9	26.9
5	71.9	88.2	80.6	64.2	55.2	58.3
6	87.7	73.3	82.6	64.1	70.4	47.9
7	84.6	76.9	81.9	61.4	67.6	45.5
8	63.6	84.6	84.5	46.9	62.0	40.2
State	62.0	66.9	83.5	60.7	49.1	37.3