

# How are suspensions related to school climate in California middle schools?

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# Executive Summary

In the past decade, California has taken a leading role nationally in reducing the use of punitive, exclusionary discipline in schools in response to research showing its negative effects and disproportionate application on students of color. The state legislature, department of education, and individual school districts have each implemented reforms intended to lower the rate of out-of-school suspensions and to improve school climate. For example, since 2014 the state has required that school districts create annual Local Control and Accountability Plans to regularly assess and report in detail on how they plan to reduce suspensions, increase school connectedness, and improve perceived school safety. The California Department of Education (CDE) encourages the use of data to monitor and assess these efforts at both the state and school levels and requires districts to annually provide suspension rate data to the CDE, which publicly posts the information.

To explore the impact of these reform efforts, this report analyzes recent trends both in middle school suspension data reported to CDE and in eight indicators of school climate<sup>1</sup> reported by 7th grade students on the California Healthy Kids Survey (CHKS). The availability of data from the CHKS offers educators, school administrators, parents and other stakeholders, and the general public an important opportunity to understand how school climate and safety may have changed in California schools *from the perspective of the students themselves* during the past 10 years of disciplinary reform advocacy and enactment. Based on data from these sources, the report addresses two overarching questions:

1. **Research Question 1: What are the statewide trends in school suspension rates and school climate at the middle school level in California in recent years?**
2. **Research Question 2: How are recent changes in suspension rates related to changes in school climate?**

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<sup>1</sup> The eight school climate indicators analyzed for this report are: sense of connectedness to school, presence of caring adult relationships in school, being held to high expectations by adults in school, having opportunities for meaningful participation in school, feeling safe in school, experiencing bullying and harassment, being victimized physically or emotionally, and perpetrating violence.

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## ABOUT THE DATA

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The analyses in this report use state-collected incidence data and two sources of survey data. Both sets of survey data include student responses to a common set of survey items relating to school climate and safety.

### ***School Suspension Rate Data***

Statewide suspension results for this report are based on data from 1,231 public intermediate/middle and junior high schools (generally referred to as “middle schools” throughout this report); each of these schools serves either 6th, 7th, and 8th graders or 7th and 8th graders.

### ***Biennial State CHKS Data***

School climate trends for answering Research Question 1 are based on data from 7th graders in 186 schools that participated in the Biennial State CHKS in 2011–13, 2013–15, 2015–17, and 2017–19. The Biennial State CHKS is administered over two-year periods to random samples of schools across California.

### ***Aggregated Local CHKS Data***

Research Question 2 further addresses the relationship between changes in school climate and suspension rates using aggregated local data from 985 public middle schools whose districts administered the CHKS in two or more years between 2011–12 and 2018–19.

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## Key Findings

Results of analyses to address these research questions show that, statewide, between 2011–12 and 2018–19, out-of-school suspension rates declined in California middle schools. At the same time, between administrations of the Biennial State CHKS in 2011–13 and 2017–19, only three of eight indicators of school climate improved statewide. However, of the middle schools that administered the CHKS, those that experienced *declines* in suspension rates (0.3 percentage points or more per year) also exhibited the *greatest school climate improvements* on six of the eight outcomes examined.

### State Trends in Suspension Rates

- The average rate of suspensions at California middle schools decreased by a third between 2011–12 and 2014–15, and then remained relatively stable between 2014–15 and 2018–19.
- In 54 percent of California middle schools, suspension rates declined between 2011–12 and 2018–19, at an annual rate of 0.3 percentage points or more.
- In about 34 percent of schools, suspension rates were relatively stable between 2011–12 and 2018–19; in 12 percent of schools, suspension rates during this period increased by 0.3 percentage points or more per year.

## State Trends in School Climate

- Between 2011–13 and 2017–19, the biggest improvements at the middle school level in school climate were in Violence Perpetration, Victimization, and Bullying and Harassment. School Connectedness remained stable.
- Although improvements occurred in six of the eight school climate indicators (High Expectations decreased and Bullying and Harassment remained stable) between 2013–15 and 2015–17, school climate has worsened in California schools since 2015–17. Students at the middle school level reported substantially poorer perceptions on all eight school climate measures in 2017–19.

## Relationship Between Trends in Suspension Rates and School Climate in Schools Grouped by Suspension Rate Trajectory

- School Connectedness declined in schools where suspension rates remained stable or increased, but School Connectedness remained stable in schools with declines in suspension rates.
- Violence Perpetration declined most in CHKS schools with declines in suspension rates and declined less in schools with increasing or stable suspension rates.
- Caring Adult Relationships, High Expectations, Opportunities for Meaningful Participation, and Perceived School Safety declined regardless of the suspension rate trajectory. However, in schools that exhibited declines in suspension rates, these indicators declined the least.

In contrast, the schools where suspension rates *increased* 0.3 percentage points or more per year generally demonstrated declines in the school climate indicators, with the exception of those related to Bullying and Harassment and Victimization.

- Bullying and Harassment, as well as Victimization, declined at similar rates across schools regardless of suspension rate trajectory (increasing, stable, or decreasing).

Most differences between suspension rate trajectory groups were found to be statistically significant, although declines in Bullying and Harassment and in Victimization were not significantly associated with differences in suspension rate trajectories.

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*School climate improved most in schools that also experienced the greatest declines in out-of-school suspension rates. There was no evidence to support concerns that reductions in suspension rates led to reductions in school safety.*

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# Introduction

The use of exclusionary discipline policies — out-of-school suspensions and total expulsions from a school — grew with the spread of the zero-tolerance philosophy, which dominated the discourse on school discipline from the late 1980s through the early 2000s. However, in more recent years, an increased understanding of the negative and inequitable consequences of suspensions and other exclusionary practices has begun a public discussion about how such practices are being used and how they may affect student outcomes. A key issue is the relationship of disciplinary practices to school climate. Specifically, it is important to understand whether exclusionary discipline has a negative effect on school climate and student outcomes or whether eliminating exclusionary options is likely to create a more disruptive and less safe environment. Reform advocates have emphasized the importance of not only reducing exclusionary practices but also ensuring that all students experience a school climate that is safe, supportive, and engaging. Drawing on data from the Biennial State California Healthy Kids Survey (CHKS) and state-reported suspension rates, this report seeks to address two overarching questions regarding the relationship between school suspension rates and school climate at the middle school level in California since 2011:

1. **Research Question 1: What are the statewide trends in school suspension rates and school climate at the middle school level in California in recent years?**
2. **Research Question 2: How are recent changes in suspension rates related to changes in school climate?**

## Background

Out-of-school suspension is one of several types of disciplinary actions that K–12 schools may take in response to student behavior that violates school rules. However, the standard for the application of out-of-school suspensions — as with other types of disciplinary actions — varies from school to school. Some schools implement what are called “zero-tolerance” policies, meaning that there are mandated, predetermined consequences to certain categories of student misbehavior — regardless of the situational context or rationale for the behavior. Specified consequences are typically severe, exclusionary, and disproportionately applied. Furthermore, zero-tolerance policies rarely require rehabilitative or supportive services to help students change their behavior in positive ways. Beginning in the mid-1980s, proponents of zero-tolerance policies argued that mandatory, exclusionary punishment is necessary to ensure safety and order in schools, reduce violent and illegal behavior, and make it possible for a learning environment without the disruptions created by misbehaving students, both by removing disorderly students from the classroom and by deterring others from misbehaving (Ewing, 2000; Boccanfuso & Kuhfeld, 2011; Losen & Skiba, 2010).

Zero-tolerance policies were initially promoted as a response to serious offenses (e.g., selling drugs or engaging in gang-related fights on school grounds). However, in the course of the first decade and a half of the 21st century, concerns grew as members of the public became aware of high suspension rates and their consequences. An influential early study showed that nearly 6 in 10 Texas public school students studied were suspended or expelled at least once between grades 7 and 12 (Fabelo et al., 2011). Research — summarized in an early, seminal critique of zero tolerance by the American Psychological Association Zero Tolerance Task Force (2008) — called into question the effectiveness of exclusionary discipline and revealed a wide range of harmful, negative effects (notably Boccanfuso & Kuhfeld, 2011; Morgan et al., 2014; Cuellar & Markowitz, 2015; Fabelo et al., 2011; Losen, 2011; Losen & Skiba, 2010; Losen & Gillespie, 2012; Losen & Martinez, T., 2013; Losen et al., 2012; Marchbanks et al., 2015; Noltemeyer & Mcloughlin, 2010; Sartain et al., 2015; Peguero & Bracy, 2014; Perry & Morris, 2014; Skiba et al., 2009; Skiba, Chung, et al., 2014). Studies have also consistently shown that suspension, expulsion, and their negative effects are disproportionately experienced by students in certain groups, including Black, Latinx, and Native American students; LGBTQ students; students from low-income families; young people in foster care; and students with disabilities (Skiba, Chung, et al., 2014; GLSEN, 2016; U.S. Government Accountability Office, 2018). Racial disproportionality in suspensions has only been exacerbated under zero-tolerance policies (Hoffman, 2012; Curran, 2016).<sup>2</sup>

Students who have been suspended or expelled, particularly those who have been suspended or expelled repeatedly, are at higher risk of school failure and multiple problems in part because they are excluded from instruction and the student supports typically provided by schools. This loss of learning time only exacerbates the process of school disengagement and heightens the odds of future engagement in risk behaviors. Furthermore, students who are suspended or expelled are more likely than students who are not similarly disciplined to experience academic failure, grade retention, and high school dropout (Noltemeyer et al., 2015). Such students may also be more likely to become involved with the juvenile justice system, creating a school-to-prison pipeline and greater problems for individuals and communities. By pushing misbehaving students out of school, suspension and other exclusionary discipline practices lead to situations in which students experience a reduction in supervision and support, offering few opportunities to address any underlying issues contributing to the misbehavior (Morgan et al., 2014).

Many offenses for which students are suspended are nonviolent, involve no weapons, and are often minor infractions (e.g., tardiness, absence) or are vague, subjective offenses such as disrespect or defiance (Skiba, Chung, et al., 2014; Mendez & Knoff, 2003). In particular, defiance is a subjective, catchall behavior category used to describe anything from wearing a hat in class to shouting or talking

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<sup>2</sup> Data collected since 1964 by the Office for Civil Rights (OCR) in the Department of Education (Children’s Defense Fund, 2014) further illustrate how the use of punitive discipline in schools reflects historical racial inequities and practices that consistently disadvantage Black, Latinx, and Native American students (Carter et al., 2016). OCR investigations of civil rights violations have revealed discrimination in school discipline, with schools frequently punishing Black, Latinx, and Native American students, as well as students with disabilities, more harshly compared to their White and Asian American peers without disabilities who commit similar behavioral infractions (U.S. Commission on Civil Rights, 2019). It has been hypothesized that documentation from these internal investigations may “provide stronger evidence of discrimination than research literature” since large-scale studies on discriminatory practices would be a challenge to lead (Gordon, 2018).

back at school personnel. School suspension practices, which can vary substantially across schools, may also be influenced by subjective factors other than student misbehavior, like principals' attitudes toward use of suspension (Fabelo et al., 2011; Losen, 2011). The subjective nature of many schools' exclusionary discipline decisions often results in racial, ethnic, and other biases in disciplinary policies and practices. Research shows that Black, Latinx, and Native American students disproportionately experience out-of-school suspensions, often for minor infractions and without evidence of higher rates of misbehavior. Racial and ethnic disparities are particularly evident in discipline data when offense categories are subjective or vague, such as "defiance" (Skiba et al., 2002). The spread of high-stakes academic standardized testing, which gained momentum as The No Child Left Behind Act was signed into law in 2002, also incentivized some districts to suspend students for more minor misbehavior if the students' presence could reduce the schools' overall test scores (Figlio, 2005).

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*Research shows that Black, Latinx, and Native American students disproportionately experience out-of-school suspensions, often for minor infractions and without evidence of higher rates of misbehavior.*

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Finally, contrary to the rationale behind the adoption of exclusionary discipline, multiple studies indicate that reliance on exclusionary discipline does not improve school safety and climate, student behavior, or a school's overall rate of academic achievement. Instead, exclusionary discipline often creates an environment with adverse effects for all students. Even for students who are not suspended themselves, learning conditions in schools with high rates of suspension have not been shown to improve, and conditions are instead often negatively affected (Perry & Morris, 2014). Although suspensions and expulsions are sometimes considered necessary to address unsafe or violent student behavior, the heavy reliance on exclusionary discipline, especially for minor incidents, is therefore often ineffective and counterproductive. As a result, states and schools have been turning to potentially effective alternatives to punitive and exclusionary discipline strategies, often rooted in fostering a more positive environment for all students. These strategies include restorative practice or restorative justice, and positive behavioral intervention and supports (Owen et al., 2015; Gray et al., 2017; Gregory & Clawson, 2016; Fronius et al., 2016; Schiff, 2013).

In response to the evidence about exclusionary discipline, in January 2014 the U.S. Department of Justice and Department of Education jointly issued a guidance letter to assist public elementary and secondary schools in meeting their obligations under federal law to administer student discipline without discriminating on the basis of race, color, sex, or national origin. The guidance noted that suspension rates vary widely across states and that, although Black students represented 15 percent of students nationally in 2012, they made up 35 percent of students suspended once and 44 percent of students suspended more than once (U.S. Department of Education & U.S. Department of Justice, 2014).

The same year, the Council of State Governments Justice Center released its School Discipline Consensus Report (Morgan et al., 2014) summarizing the agreement reached by over 700 experts, including advisors, practitioners, researchers, and others from the fields of education, health, law enforcement,

and juvenile justice, that local and state governments must help schools reduce the number of students suspended, expelled, and arrested, especially for minor school-based offenses. Equally important, the report encouraged schools to provide conditions for learning that enable all students to feel safe, welcome, and supported.

When the U.S. Department of Education and U.S. Department of Justice rescinded the 2014 guidance four years later — despite letters of opposition from teachers’ unions; the National PTA; over 120 national, state, and local education and civil rights organizations; and at least 11 state attorneys general (The Leadership Conference of Civil and Human Rights, 2018; Ujifusa, 2018) — the U.S. Department of Education supported its decision by arguing that the guidance had caused some schools to reduce their use of suspensions, and that this less punitive approach to school discipline had put student safety at risk (Federal Commission on School Safety, 2018). Many researchers and educators, emphasizing that this claim is not supported by research evidence, continue to promote the importance of having strong federal guidance on this topic. A report released by the U.S. Commission on Civil Rights in July 2019 found that “Evidence indicates that after disciplinary policies were changed in response to the 2014 guidance on school discipline . . . many schools witnessed positive change, including higher sense of safety ratings, higher graduation rates, and overall greater achievement” (U.S. Commission on Civil Rights, 2019, p. 163).

## The California Context

California has prioritized reforming its public schools’ approaches to student discipline. Much of the research on suspensions underlying the movement for change was conducted by Daniel Losen and a team of colleagues at the UCLA Civil Rights Project, using data involving California students.<sup>3</sup> Driven by the work of local advocates, the growing concerns about the increasing suspension rates and their negative impact resulted in changes in laws and discipline practices in California beginning in the fall of 2012, when the governor signed four bills to help reduce the number of California students suspended each year. Notably, those bills included a requirement that suspensions be used only after corrective alternatives fail. Advocates for discipline reform, including law enforcement, emphasized the size of the problem — in the 2010–11 school year, California issued about 700,000 suspensions (11 for every 100 students), more than the total number of diplomas. The majority of those suspensions were applied for relatively minor, non-violent, non–drug-related incidents. Suspensions were affecting over 429,000 students per year, who in turn lose a total of 3 million school days, making the state an unintentional leader in pushing kids out of school (Watanabe, 2012; Fight Crime: Invest in Kids, 2012; Losen & Gillespie, 2012; Losen et al., 2012).

In April 2013, the California Department of Education (CDE) released further data on which students were being suspended and why, showing that the subjective category of being disruptive or defiant, commonly referred to as “willful defiance,” was the most common behavior that led to suspensions and expulsions — particularly for Black, Latinx, and Native American students. At the time, defiance and

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<sup>3</sup> See, for example, Losen & Skiba, 2010; Losen & Gillespie, 2012; Losen et al., 2014; Losen, Keith, et al., 2015; Losen, Hodson, et al., 2015; Losen & Whitaker, 2017; Rumberger & Losen, 2017; Losen & Martin, 2018; and Losen & Martinez, P., 2020.

disruptive behavior alone accounted for almost half of all suspensions and a quarter of expulsions (Freedberg, 2013).

The release of these data gave new impetus to a statewide campaign to eliminate suspensions for “disruptive or defiant” behaviors as an exclusionary discipline offense category. The Los Angeles Unified School District became the first district in the state to ban the practice in all schools in all grades in May 2013, followed by the San Francisco Unified School District (2014) and Oakland Unified School District (2015–16). In September 2014, then-Governor Jerry Brown signed legislation prohibiting disruptive and defiant behaviors as reasons for both in-school and out-of-school suspension in grades K–3 (Assembly Bill 420, effective January 1, 2015), and the state has since expanded the ban to students in grades 4–8 (Agrawal, 2019).

The movement to reduce suspensions and expulsions in California received a further boost when the state’s new Local Control Funding Formula (LCFF) in 2013 established “school climate” as one of eight state priorities that all districts and county offices of education must improve in their three-year Local Control and Accountability Plans (LCAPs). The LCFF statute provides that each district’s LCAP must include goals, actions, and expenditures related to improving school climate, as measured by indicators including rates of student suspensions and expulsions (Taylor, 2013). An analysis of the initial LCAPs of the 50 largest school districts in the state, representing 41 percent of all California public school students, found that 92 percent of these districts had goals to decrease suspensions (Fight Crime, 2015).

In their initial LCAPs, districts were simply expected to set goals for reducing suspension rates and then assess their own progress in meeting those locally identified goals. The state provided no guidance about what rates and progress districts should strive for when setting their goals, nor any consequences for high and/or increasing suspension rates. More conditions were put in place with the CDE’s adoption of a new accountability system and online California School Dashboard, launched in 2017. CDE now requires districts to annually provide suspension rate data to the CDE, which publicly posts the data on the California School Dashboard, as the indicator for the LCAP school climate priority, with color-coded indications of the magnitude of the rates and how they change from year to year. Suspension rates are one of seven current state indicators for which performance, including that of individual subgroups, dictates whether or not a district will be targeted for technical assistance or “differentiated assistance,” as the CDE refers to it (CDE, n.d.). California is one of only three states with a distinct state indicator for suspension rates (Fight Crime, 2018).<sup>4</sup> The other LCAP school climate indicators (Perceived School Safety

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<sup>4</sup> For the LCAP summary, each district must review the Dashboard and report if any of the LCAP indicators — including the district and school suspension rates for all students — is orange or red. California uses both current suspension levels and annual changes in suspension rates to classify district and school performance. For example, middle schools with medium (>2% to 8%) or high (>8% to 12%) rates of suspension in a particular year that also exhibited 0.3% to 4.0% increases in suspension rates are classified as orange. Those that exhibited increases in suspension rates that were greater than 4.0% are classified as red on the dashboard (see <https://www.cde.ca.gov/ta/ac/cm/fivebyfivecolorables19.asp#SuspensionTable>). Also, as with other state indicators, districts must identify any specific student subgroups that have suspension rates two colors below the district’s rate for all students (i.e., if green for all students, a district must identify all subgroups that get an orange or red).

and School Connectedness, both based on student survey data) are considered local district indicators that must be reported to the state.<sup>5</sup>

## The Relationship Between School Climate and Discipline Practices

The question of whether changes in suspension rates are related to changes in school climate in California is important to address for several reasons. Zero tolerance proponents argued that using exclusionary discipline, such as suspensions, is necessary to keep schools safe and healthy. A number of schools, educators, and advocates have opposed state legislation intended to ban schools from using suspension and expulsion, and the California Teachers Association remained neutral on a bill proposed in 2019 (Sheeler, 2019). At schools where suspension policies were made more restrictive, according to the *Los Angeles Times*, some staff in Los Angeles Unified School District initially reported that the presence of more disruptive students on campus was adversely affecting the classroom, school climate, and school safety (Watanabe & Blume, 2015). However, as summarized in the prior section, the growing body of research on exclusionary discipline practices, including out-of-school suspensions, does not generally support these concerns.

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*One of the main arguments against exclusionary disciplinary policies is that the practice may actually undermine, rather than improve, school climate and sense of safety.*

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One of the main arguments against exclusionary disciplinary policies is that the practice may actually undermine, rather than improve, school climate and sense of safety (APA, 2008, citing Bickel & Qualls, 1980). Studies have found that schools that rely more on exclusionary discipline are associated with poorer climates for learning, including being less safe and orderly (Sartain et al., 2015; Perry & Morris, 2014). Schools that are highly punitive in response to student misbehavior can also create an overarching sense of anxiety among all students at school, including those who are not subjected to disciplinary measures (Nolan, 2011; Kupchik, 2010). In these cases, the “ubiquity of the threat” of punishment dominates the school climate and radiates throughout the school community (Nolan, 2011, p. 68). In other words, the goal of social control may overshadow the goal of education.

Overuse of exclusionary discipline can also undermine a sense of school belonging and connectedness among all students. McNeely and colleagues (2002) found that less tolerant school disciplinary policies — those that apply exclusionary disciplinary actions, including suspension, for more minor violations —

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<sup>5</sup> The California Dashboard guidelines call for “Administration of a local climate survey at least every other year that provides a valid measure of perceptions of school safety and connectedness to students in at least one grade within the grade span(s) that the LEA. . . .” (CDE, 2018) but does not require state reporting in the Dashboard.

was one of the strongest predictors of school disconnectedness. It is possible that some students feel less safe in schools with less tolerant disciplinary policies. One study found that receiving a formal school sanction (in-school suspension, out-of-school suspension or probation, or transfer to another school for disciplinary reasons) was the strongest risk factor related to the likelihood of a student dropping out of school. Although a student's positive perceptions of student-teacher relationships are a protective factor against dropping out, those positive perceptions could be undermined by exclusionary discipline practices (Peguero & Bracy, 2014).

## Out-of-School Suspensions in Middle School

This report presents the results of an analysis of how state-level trends in suspension rates are related to trends in school climate indicators, as reported by 7th grade students on the California Healthy Kids Survey (CHKS).<sup>6</sup> Middle schools were chosen as the focus of this report for several reasons, including:

- A student's middle school experience is known to be important in determining future academic and developmental success (Williams et al., 2010).
- Suspensions in middle school may have significant long-term repercussions (Balfanz et al., 2003; Fabelo et al., 2011).
- Data indicate that suspension rates peak in middle school (Losen & Martin, 2018).

The middle grades have been characterized as critical years when students face increased educational challenges and meet important developmental and academic milestones. Young teens undergo multiple physical, social-emotional, and intellectual changes, including the onset of puberty, that shape who they are and how they function as adults. Academic performance in middle school is also predictive of academic performance in high school and college, and it is a time when some students begin to disengage from school, increasing the likelihood of high school dropout (Williams et al., 2010). For many young people, it is the beginning of the process of dropping out, a time when the habits that predict whether or not a student graduates are formed and when students ask and answer for themselves, "Is schooling for me?" (Balfanz, 2009; Calvert, 2011). The earlier it is that young people develop off-track indicators such as chronic absenteeism, behavioral problems, and low course grades, the lower their graduation odds appear to be (Balfanz, 2009).

Suspensions are one such off-track indicator. Research indicates that students who get suspended in middle school and early in high school, compared to students not suspended, are more likely to drop out of school and to become involved in the juvenile justice system (Balfanz et al., 2003; Fabelo et al., 2011; Noltemeyer et al., 2015; Rumberger & Losen, 2017). A large Texas study that tracked every middle school student in the state for six years found that being suspended in middle school dramatically increased a student's risk for dropping out and for involvement in the juvenile justice system, after controlling for numerous other variables linked to these outcomes (Fabelo et al., 2011; Noltemeyer et al., 2015). Another study found that students who were incarcerated in 9th grade, compared with non-

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<sup>6</sup> Because this analysis only identifies correlations between trends in suspension rates and trends in school climate indicators, the results cannot be definitively used to make inferences about causation.

incarcerated 9th graders, on average had experienced more academic challenges, less frequent school attendance, and more out-of-school suspensions when they were in 8th grade (Balfanz et al., 2003).

Results from several studies suggest that suspension rates may be highest during the middle school years (Florida State Department of Education, 1995; Raffaele-Mendez & Knoff, 2003; Loveless, 2017). For example, an analysis of statewide data in Florida from 1992 to 1993 showed that out-of-school suspension rates increased throughout middle school, peaking in 9th grade (Florida State Department of Education, 1995). A more recent analysis of 2016–17 suspension data in California showed that 7th and 8th graders lost the most days to suspensions — more than double the average rate across all grades K–12 — and the racial gaps in suspension rates were largest in the middle school grades (Losen & Martin, 2018). Similarly, in the state of New York, although suspension rates have been found to be higher in high schools than middle schools, racial disproportionality in suspensions was worst in middle schools (The New York Equity Coalition, 2018).

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# Sample and Method

This report summarizes the findings from analyses that address two related research questions. Analyses were conducted using data collected from California middle schools during the period when advocacy for liberalizing suspension policies and eliminating their use for defiant and disruptive behavior took hold. Research Question 1 focuses on statewide trends in middle school suspension rates between 2011–12 and 2018–19 and in school climate between 2011–12 and 2016–17; Research Question 2 focuses on how changes in suspension rates relate to changes in school climate at the school level between 2011–12 and 2018–19. The following section describes the data sources, samples, and methodology used to address the research questions.

## Sample Selection and Size

This report uses three sources of data from California middle schools:

- Out-of-school suspension rate data for eight consecutive school years, from 2011–12 to 2018–19 (Research Questions 1 and 2);
- Biennial State California Healthy Kids Survey (CHKS) data from the 2011–13, 2013–15, 2015–17, and 2017–19 survey administrations (Research Question 1); and
- Aggregated local CHKS data from middle schools that administered the survey between 2011–12 and 2018–19 (Research Question 2).

## Out-of-School Suspension Data

Data on out-of-school suspensions from the school years 2011–12 through 2018–19 were obtained from the California Department of Education (CDE). Each of the files was appended to create a single long data file which included suspension data from all eight years, with multiple records (years of data) for each school. However, the file did not provide suspension data for all schools in all years; some schools were missing data for certain years. This file was merged with the most recent public school dataset from the CDE containing information on school type (e.g., middle school). Only matched schools that were classified as “Intermediate/Middle Schools (Public)” and “Junior High Schools (Public)” were retained, resulting in a dataset containing suspension data for 1,231 schools, which this report broadly refers to as “middle schools.” This study separately examined one independent variable: total suspension rate, calculated by dividing the number of students suspended by the total number of students in each school in the statewide suspension sample (Table 1).

TABLE 1.

### Statewide Sample of Middle Schools Providing Suspension Data: Number of Schools and Number of Students Suspended, by School Year

School Year	Number of Middle Schools	Number of Students Suspended
2011–12	1,184	104,308
2012–13	1,198	90,558
2013–14	1,200	81,079
2014–15	1,202	67,763
2015–16	1,201	66,408
2016–17	1,204	66,810
2017–18	1,203	65,239
2018–19	1,191	64,271

Note: The sample described here consists of 1,231 unique public schools (those classified by the state as “Intermediate/Middle Schools” or “Junior High Schools”) in California for which suspension data are available.

## California Healthy Kids Survey

Two sets of CHKS data were used for answering the research questions. The CHKS was developed in 1998 for the CDE, which makes it available for voluntary administration by school districts in the state at a subsidized rate. Because district participation is voluntary, every two years the state also administers the survey to a randomly selected representative state sample of schools and students, known as the Biennial State CHKS, in order to obtain state norms for comparison with local CHKS data. (More information about the CHKS can be found in Appendix A.)

**Research Question 1.** To examine trends in school climate in California middle schools, analyses for Research Question 1 used pooled data from administration of the Biennial State CHKS among 7th grade students in the years 2011–13, 2013–15, 2015–17, and 2017–19. Funded by the California Department of Health Care Services in collaboration with the CDE, the Biennial State CHKS is an administration of the survey to a randomly selected sample of secondary schools, representative of the state, surveyed over a two-year period in order to provide valid statewide norms for comparison to local school district results.<sup>7</sup> The sample is different for each survey administration. The Biennial State CHKS sample consists of data collected from 44,036 7th grade students in 186 schools — including those classified as elementary, intermediate/middle, junior high, high, and K–12 schools — over four survey administrations, just under 50 schools each year (Table 2). However, elementary school students, high school students, charter school students, and students in nontraditional schools were not included in the sample for addressing Research Question 1.

<sup>7</sup> Data collection occurs over two school years because it is embedded in local school district CHKS administration, which takes place every two years in most districts.

TABLE 2.

### Statewide Sample of Schools Providing Biennial State CHKS Data for 7th Graders: Number of Participating Schools and Number of Survey Respondents, by Years of Survey Administration

School Year	Number of Participating Middle Schools	Number of 7th Grade Survey Respondents
2011–13	49	11,286
2013–15	48	7,763
2015–17	47	13,451
2017–19	42	11,536
Total	186	44,036

Note: The Biennial State CHKS dataset used in analyses for Research Question 1 consists of survey responses from 7th graders attending public schools in California. A different random sample of schools is selected to participate in each survey administration.

**Research Question 2.** To examine the relationship between trends in school climate and in school suspension rates, analyses for Research Question 2 used data from 985 schools that administered the CHKS to 7th grade students in two or more years from 2011–12 through 2018–19 *and* for which suspension data are available. Although CHKS participation is voluntary, the CHKS is administered by almost three quarters of California middle schools, usually every other year. Thus, the sample of schools whose data are used in this analysis reflects the wide diversity of all schools in the state, even though the aggregated local student sample is not necessarily representative of all students. Table 3 shows the number of schools in the aggregated local CHKS sample for each year of interest for Research Question 2; Figure 1 shows the geographic distribution of those schools across the state. Unlike the Biennial State CHKS sample, the aggregated local CHKS sample includes data only from schools classified as intermediate/middle and junior high schools.

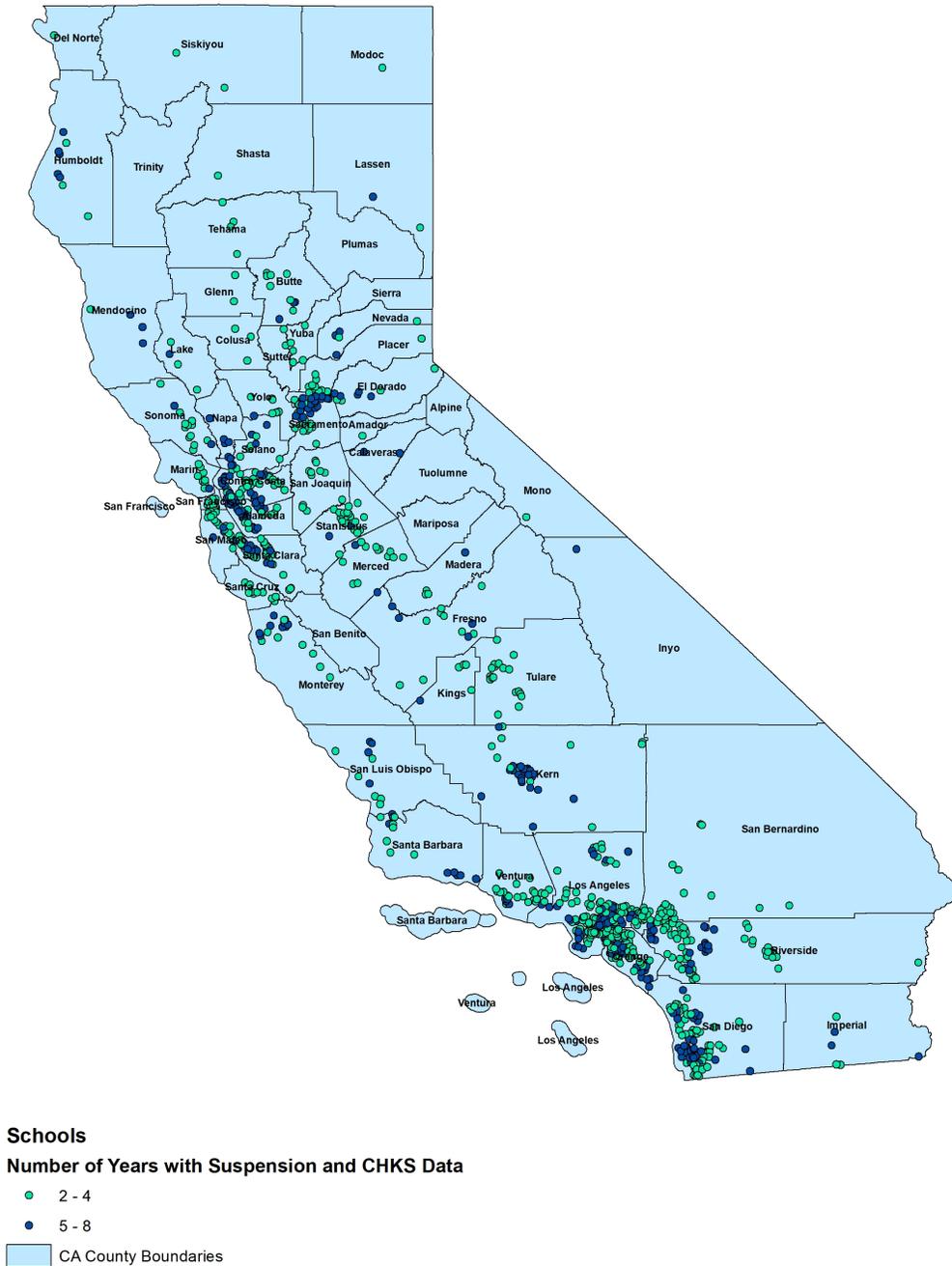
TABLE 3.

### Sample of Middle Schools Providing Both Aggregated Local CHKS and Suspension Data: Number of Schools, by School Year

School Year	Number of Middle Schools
2011–12	955
2012–13	966
2013–14	973
2014–15	979
2015–16	979
2016–17	980
2017–18	977
2018–19	968

Note: The aggregated local CHKS dataset used in analyses for Research Question 2 consists of survey responses from 7th graders attending 985 unique public schools in California that administered the CHKS for two or more years between 2011–12 and 2018–19. Years of CHKS administration at each school may be nonconsecutive.

**FIGURE 1.**  
**Distribution of Middle Schools Providing Both Aggregated Local CHKS and Suspension Data, 2011–12 to 2018–19**



**Note:** The aggregated local CHKS dataset used in analyses for Research Question 2 consists of survey responses from 7th graders attending 985 unique public schools in California that administered the CHKS in two or more years between 2011–12 and 2018–19. Years of CHKS administration at each school may be nonconsecutive.

## Selected School Climate Survey Measures

This report examines data from eight measures on the CHKS that provide insight into students' perceptions of school climate, including levels of school safety, support, and engagement: School Connectedness, Caring Adult Relationships (in school), High Expectations (in school), Opportunities for Meaningful Participation (in school), Perceived School Safety, Bullying and Harassment, Victimization, and Violence Perpetration. One of these measures (Perceived School Safety) is based on student responses to a single survey item. Each of the others is a composite measure based on responses to multiple survey items. These items are all part of the CHKS Core Module, which is administered by schools in both the Biennial State CHKS sample and the aggregated local CHKS sample.

Items in the Bullying and Harassment scale collect data on the reasons why a student believes they may have been bullied or harassed, while items on the Victimization scale collect data on the types of victimization (verbal, physical, and property) that students experience. Three measures — Caring Adult Relationships, High Expectations, and Opportunities for Meaningful Participation — assess the degree to which students experience from school staff the basic developmental supports that have been linked to resilience and positive educational, social-emotional, behavioral, and health outcomes (Benard, 2004). For more information about the measures, see Appendix B.

Table 4 provides a list of the measures used for addressing both research questions and describes how each measure is operationalized.

TABLE 4.

### Selected School Climate Measures

Construct	CHKS Survey Measure and Operationalization
School Connectedness	<p>(Five-item scale)</p> <p>I feel close to people at this school; I am happy to be at this school; I feel like I am part of this school; The teachers at this school treat me fairly; I feel safe in my school.</p> <p>% of students responding, on average, “agree” or “strongly agree” to items in scale</p>
Caring Adult Relationships (in school)	<p>(Three-item scale)</p> <p>At my school, there is a teacher or some other adult...who really cares about me; ...who notices when I’m not there; ...who listens to me when I have something to say.</p> <p>% of students responding, on average, “pretty much true” or “very much true” to items in scale</p>
High Expectations (in school)	<p>(Three-item scale)</p> <p>At my school, there is a teacher or some other adult...who tells me when I do a good job; ...who always wants me to do my best; ...who believes that I will be a success.</p> <p>% of students responding, on average, “pretty much true” or “very much true” to items in scale</p>

<b>Opportunities for Meaningful Participation (in school)</b>	<p>(Three-item scale)</p> <p>At school...I do interesting activities; ...I help decide things like class activities; ...I do things that make a difference.</p> <p>% of students responding, on average, “pretty much true” or “very much true” to items in scale</p>
<b>Perceived School Safety</b>	<p>How safe do you feel when you are at school?</p> <p>% of students responding “very safe” or “safe”</p>
<b>Bullying and Harassment</b>	<p>(Six-item scale)</p> <p>In the past 12 months at school, have you been harassed or bullied for any of the following reasons...? Your race, ethnicity, or national origin; Your religion; Your gender; Because you are gay, lesbian, or bisexual or someone thought you were; A physical or mental disability; You are an immigrant or someone thought you were; Any other reason.</p> <p>% of students responding “1 time,” “2–3 times,” or “4 or more times” to one or more items in scale</p>
<b>Victimization</b>	<p>(Six-item scale)</p> <p>During the past 12 months at school, how many times on school property have you...Been pushed, shoved, slapped, hit, or kicked by someone who wasn’t just kidding around? ...Been afraid of being beaten up? ...Had mean rumors or lies spread about you? ...Had sexual jokes, comments, or gestures made to you? ...Been made fun of because of your looks or the way you talk? ...Had your property stolen or deliberately damaged, such as your car, clothing, or books?</p> <p>% students responding “1 time,” “2–3 times,” or “4 or more times” to one or more items in scale</p>
<b>Violence Perpetration</b>	<p>(Four-item scale)</p> <p>During the past 12 months at school, how many times on school property have you...Been in a physical fight? ...Damaged school property on purpose? ...Carried a gun? ...Carried any other weapon?</p> <p>% students responding “1 time,” “2–3 times,” or “4 or more times” to one or more items in scale</p>

**Note:** The information in this table is compiled from Mahecha & Hanson (2020).

## Analytic Strategy

### Statewide Trends in School Suspension Rates and School Climate

First, researchers examined overall state trends in suspension rates and CHKS school climate indicators since 2011 (Research Question 1). The sample of schools used for the analysis of suspension rates includes all public intermediate/middle and junior high schools in the state with a 7th grade (collectively referred to as “middle schools” in this report), and the sample for the analysis of school climate measure consists of those public schools whose 7th graders completed the Biennial State CHKS in the years 2011–13, 2013–15, 2015–17, and 2017–19. The school-level aggregated suspension data (N = 1,231) were used to calculate the mean overall suspension rate by year from 2011–12 to 2018–19, weighted by cumulative enrollment. To describe differences in suspension rate trajectory patterns across schools, the researchers estimated the average annual change in suspension rates for each school from 2011–12 through 2018–19. A regression model was fitted for each school to estimate a parameter capturing the average annual change in suspension rate. Schools were grouped into three categories depending on the estimated average annual change in suspension rate (Table 5). These categories are partially aligned with those used for Local Control and Accountability Plan (LCAP) reporting purposes on the California School Dashboard, which is widely used by practitioners and policy makers in California.<sup>8</sup>

**TABLE 5.**  
**Suspension Rate Trajectory Categories**

Category	Suspension Rate Trajectory
Decline	Average annual decline in suspension rates equal to or greater than 0.3 percentage points
Stable	Average annual changes in suspension rates between -0.3 and 0.3 percentage points
Increase	Average annual increases in suspension rates equal to or greater than 0.3 percentage points

**Note:** Suspension rate trajectory categories used for this report are partially aligned with those used for LCAP reporting purposes on the California School Dashboard.

To show trends for each school climate measure, student-level Biennial State CHKS data were used to calculate the means of each measure of school climate for each two-year period (i.e., 2011–13, 2013–15, 2015–17, and 2017–19).

<sup>8</sup> The California School Dashboard classifies middle schools that reported annual increases in suspension rates of greater than 4 percentage points as demonstrating “significant increases” in suspension rates. Increases of between 0.3 and 4.0 percentage points are classified as “increases.” Similarly, schools with suspension rate declines of between 0.3 and 3.0 percentage points and declines greater than 3.0 percentage points are classified as exhibiting “declines” and “significant declines,” respectively. Middle schools that reported changes in suspension rates of between -0.3 and 0.3 percentage points are classified as having “maintained” their suspension rates. Because so few schools in the state experienced average annual increases greater than 4 percentage points or declines greater than 3 percentage points during the 2011–12 to 2018–19 period, the analyses for this report group schools into three categories: “increasing” (0.3 percentage points or more), “stable” (-0.3 to 0.3 percentage points), and “declining” (0.3 percentage points or more), based on their average annual trends estimated for the 2011–12 to 2018–19 period. For more information about the California School Dashboard, see <https://www.caschooldashboard.org/>. See <https://www.cde.ca.gov/ta/ac/cm/fivebyfivecolortables.asp#SuspensionTable> for a description of the suspension rate change thresholds for middle schools.

## Relationship Between Changes in School Suspension Rates and School Climate in Limited Sample

Analyses were then conducted to examine how changes in suspension rates in middle schools are related to changes in school climate (Research Question 2). The sample used to examine this relationship included all middle schools in the state that (a) had administered the CHKS for two or more years from 2011–12 to 2018–19, and (b) also had suspension rate data for the same period. The researchers re-estimated the average annual change in suspension rates for each school from 2011–12 through 2018–19 using the sample of schools with data points from both the CHKS and suspension data. Schools were grouped into three categories (decline, stable, increase) based on the average annual change in suspension rates.

Using student-reported school climate data, multilevel regression models were then estimated using CHKS data to examine trends in school climate across middle schools with different suspension rate growth trajectories. To do so, each school climate measure was modeled as a function of the interaction of suspension rate trajectory and survey administration year (i.e., separate school climate trend lines were estimated for schools in which suspension rates declined, were stable, and increased between 2011–12 and 2018–19). These models included fixed effects for schools to control for unobservable, stable differences across schools. To show how school-level changes in school suspensions are related to trends in school climate, the estimates from the regression models were used to calculate predicted values for each school climate indicator for schools with the three different suspension rate trajectories defined in Table 5.

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# Results

## What are the statewide trends in school suspension rates and school climate at the middle school level in California in recent years?

### Middle School Suspension Rates Have Been Declining

Descriptive analyses of school-level suspension data indicate that there has been an overall downward trend in the average rate of suspensions among all California middle schools in recent years. The decline between 2011–12 and 2014–15 was considerable, with the average percentage of students suspended at each school dropping from 9.78 to 6.35 (Figure 2). However, the average suspension rate remained fairly stable between 2014–15 and 2018–19.<sup>9</sup>

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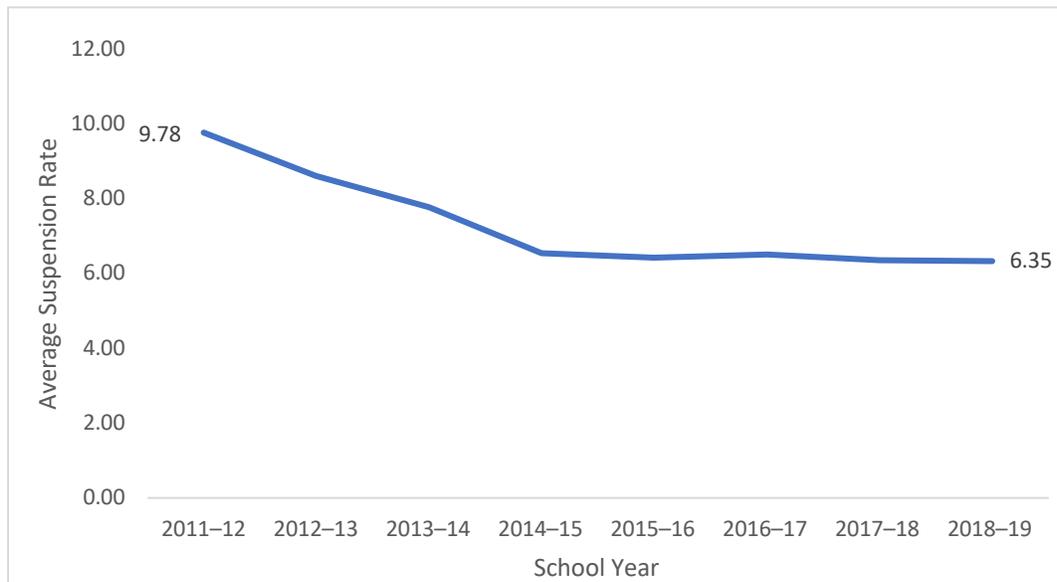
There has been an overall downward trend in suspensions among all California middle schools since 2011–12, with most of the decline occurring through 2014–15.

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<sup>9</sup> The trend in suspension rates in schools that administered the CHKS was similar to that in the state as a whole and to that observed among schools that did not administer the CHKS (Tables C2, C3, and Figure C1 in Appendix C).

FIGURE 2.

**Average Overall Middle School Suspension Rate, by Survey Year, 2011–2019**

Note: Data are from public schools classified as “Intermediate/Middle School” or “Junior High School” in California.

**Suspension Rate Trajectories**

Not only did the average rate of suspensions decline, but suspension rates declined for the majority of California middle schools between 2011–12 and 2018–19. Suspension rates declined among schools in the statewide sample at an annual rate of 0.3 percentage points or more per year in 54 percent of schools. However, in 12 percent of schools, suspension rates increased by 0.3 percentage points or more per year, and in 34 percent of schools, suspension rates remained relatively stable (changing less than 0.3 percentage points per year) (Table 6).

TABLE 6.

**Distribution of Middle Schools in Statewide Sample by Suspension Rate Trajectory**

Suspension Rate Trajectory	Number of Middle Schools	Percentage of Schools
Declined ( $\leq -0.3$ per year)	666	54
Stable ( $> -0.3$ & $< 0.3$ per year)	413	34
Increased ( $\geq 0.3$ per year)	152	12
Total	1,231	100

**School Climate Trends Vary Over Time and by Indicator**

Data from the Biennial State CHKS show that student perceptions of school climate varied over time and by school climate indicator between 2011–13 and 2017–19 (Figures 3 and 4). Compared with data from

2011–13, data from 2017–19 showed net improvements on only three of the eight school climate measures — Bullying and Harassment (decrease of 5 percentage points), Victimization (decrease of 7 percentage points), and Violence Perpetration (decrease of 7 percentage points). In contrast, students’ reports of school climate worsened between 2011–13 and 2017–19 on measures of High Expectations (decrease of 6 percentage points), Opportunities for Meaningful Participation (decrease of 5 percentage points), Caring Adult Relationships (decrease of 3 percentage points), and Perceived School Safety (decrease of 3 percentage points).

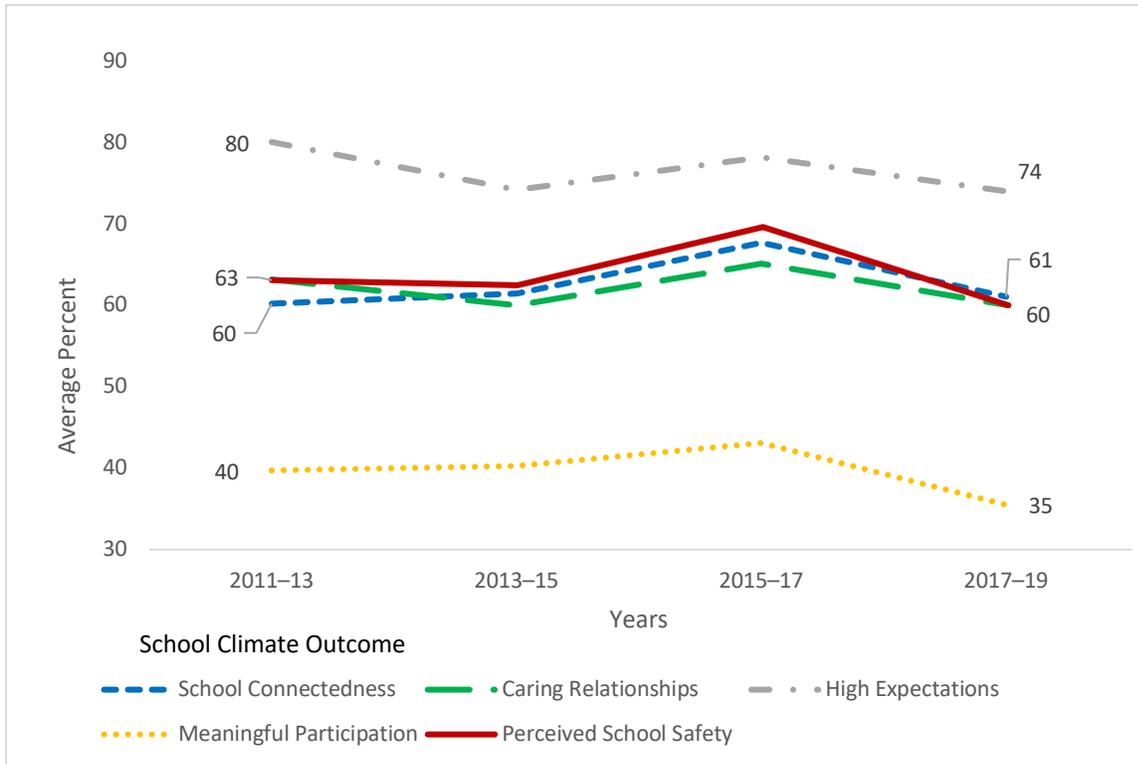
However, trends fluctuated over time. High Expectations, Opportunities for Meaningful Participation, Caring Relationships, and Perceived School Safety all improved between 2013–15 and 2015–17 before declining in 2017–19. Reports of Victimization and Violence Perpetration also decreased between 2013–15 and 2015–17 before increasing in 2017–19. Students reported substantially poorer perceptions on seven school climate measures in 2017–19 than in 2015–17, except for Bullying and Harassment which remained stable.

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*California middle schools showed net improvements in only three of the eight school climate indicators between 2011–13 and 2017–19: Bullying and Harassment, Victimization, and Violence Perpetration. School climate worsened during this time period in the areas of High Expectations, Opportunities for Meaningful Participation, Caring Adult Relationships, and Perceived School Safety.*

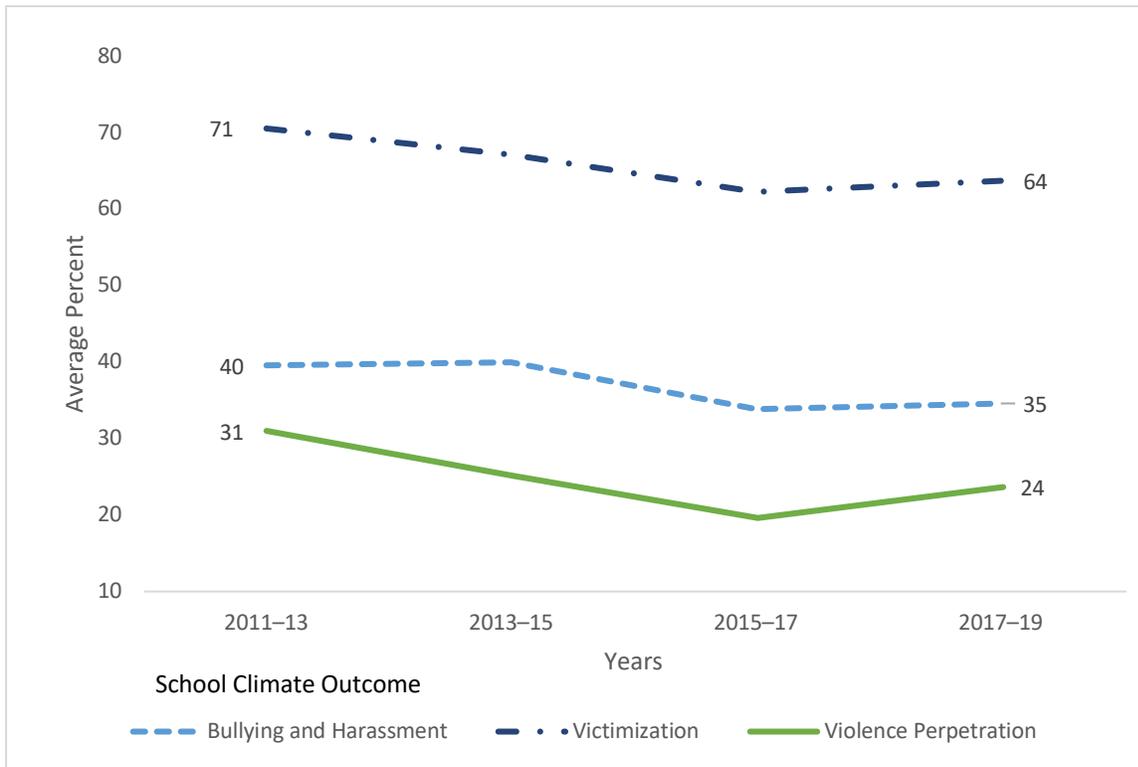
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**FIGURE 3.**  
**School Connectedness, Developmental Supports, and Perceived School Safety, by Survey Years**



**Note:** The lines represent the levels of agreement on the survey items assessing school connectedness, the presence of key developmental supports, and sense of safety at school, based on the Biennial State CHKS data. School Connectedness represents the average percentage of students in California who reported that they “agree” or “strongly agree” across the items that comprise this scale. Caring Adult Relationships, High Expectations, and Opportunities for Meaningful Participation in school each represent the average percentage of students who reported “pretty much true” or “very much true” across the survey items in the scales. Perceived School Safety represents the average percentage of students responding “safe” or “very safe” on the School Safety survey item. Table 4 provides more information about how each school climate measure is operationalized.

**FIGURE 4.**  
**Bullying and Harassment, Victimization, and Violence Perpetration, by Survey Years**



**Note:** The averages represent the average percentages of students in California reporting any bullying or harassment, victimization, or violence perpetration in the prior 12 months, based on Biennial State CHKS data. Bullying and Harassment represents the percentage of students reporting any bullying or harassment on any of the seven items. Victimization and Violence Perpetration each represents the average percentage of students responding “1 time,” “2-3 times,” or “4 or more times” across the survey items on the scales. Table 4 provides more information about how each school climate indicator is operationalized.

## How are recent changes in suspension rates related to changes in school climate?

To investigate how changes in school suspensions are associated with changes in other dimensions of school climate, schools in the aggregated local CHKS dataset were classified by their suspension rate growth trajectories (as described in the previous section), and multilevel regression models were estimated to examine trends in school climate across schools with different suspension rate growth trajectories. Although answering Research Question 1 required analysis of data from two statewide samples of schools, Research Question 2 required analysis of data from a single subsample of schools for which both suspension data and two or more years of aggregated local CHKS data were available. Using the aggregated local CHKS dataset enabled Study 2 to expand the analysis of school climate indicators through the 2018–19 school year for addressing Research Question 2. Table 7 and Figures 5–12 depict the results of these analyses. Appendix D provides detailed results for each school climate indicator.<sup>10</sup> Table D1 in Appendix D provides the total number of schools in each suspension rate trajectory category for all years included in the sample for addressing Research Question 2.

### Changes in School Climate Indicators Differ Significantly by Suspension Rate Trajectory

The numbers shown in Table 7 represent the magnitude of the change (increase or decrease) in each school climate indicator (e.g., School Connectedness scale) for each year for each suspension rate trajectory group. A  $p$ -value is the probability of finding the observed, or more extreme, results when the null hypothesis (i.e., no relationship between the variables) is true. A statistically significant  $p$ -value (i.e., a  $p$ -value of less than .01) indicates that increases or decreases in the school climate indicators are statistically significant — in other words, the positive or negative trend lines have less than a 1 percent probability of being due to chance. **Results of the analysis show that most differences in school climate trends across suspension rate trajectory groups are statistically significant.**

For example, among schools in the sample where suspension rates increased at a rate equal to or greater than 0.3 percent each year, the coefficient for School Connectedness is equal to negative 0.48, meaning that School Connectedness declined by roughly half a percentage point per year in those schools. The star (\*) beside the result indicates that the finding is statistically significant ( $p < .01$ ) and therefore is unlikely to be the product of chance. Moreover, the 0.48 annual percentage point decline in School Connectedness in schools that exhibited increases in suspension rates is statistically more pronounced than the 0.29 percentage point decline estimated for schools with stable suspension rates (see Table D3 in Appendix D).

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<sup>10</sup> The school climate trends illustrated in Figures 5–12 may not be consistent with those in Figures 3 and 4 because they are based on different data. Specifically, the statewide trends in Figures 3 and 4 are estimates from the Biennial State CHKS, which is based on a random sample of schools representative of California. Figures 5–12 are based on aggregated local CHKS data collected from 985 middle schools between 2011–12 and 2018–19. Although local CHKS data are representative of the districts participating in the survey, such data are not necessarily representative of the state as a whole. Moreover, the trends in school climate measures illustrated in Figures 5–12 are based on fixed effects models that estimate average annual within-school changes that may or may not correspond to changes statewide.

TABLE 7.

### Results of Multilevel Regression Models Predicting School Climate Measures in Schools That Administered the CHKS, by Suspension Rate Trajectory, 2011–12 to 2018–19

School Climate Measure	Schools with Declines in Suspension Rates	Schools with Stable Suspension Rates	Schools with Increases in Suspension Rates
School Connectedness	0.01	-0.29*	-0.48*
Caring Adult Relationships	-0.21*	-0.39*	-0.55*
High Expectations	-0.35*	-0.49*	-0.73*
Opportunities for Meaningful Participation	-0.53*	-0.69*	-0.85*
Perceived School Safety	-0.35*	-0.71*	-0.85*
Bullying and Harassment	-1.07*	-1.16*	-1.06*
Victimization	-1.04*	-1.11*	-0.99*
Violence Perpetration	-1.97*	-1.42*	-1.67*

Note: \*  $p < .01$  level of statistical significance. Numbers in columns 2–4 represent the average annual change in each school climate indicator. This table presents the results of analyses of public schools that administered the CHKS and are categorized as “Intermediate/Middle Schools” and “Junior High Schools.”

### Schools That Experienced Declines in Suspension Rates Also Exhibited the Greatest School Climate Improvements

Trends in six of the eight school climate indicators — School Connectedness, Caring Adult Relationships, High Expectations, Opportunities for Meaningful Participation, Perceived School Safety, and Violence Perpetration — show substantial differences between schools with different suspension rate trajectories. Results of the analysis also show that most differences between suspension rate trajectory groups for these six indicators are statistically significant.

The schools that experienced declines in suspension rates (0.3 percentage points or more per year) exhibited the greatest school climate improvements on six of the eight school climate outcomes examined, compared to other schools that administered the CHKS. The only two climate indicators for which this finding was not the case were (1) Bullying and Harassment and (2) Victimization. Schools with increases and decreases in suspension rates experienced similar declines in Bullying and Harassment over the study period. However, Victimization declined more at schools where suspension rates decreased than at schools with increases in suspensions. Among the three measures of developmental supports examined (Caring Adult Relationships, High Expectations, and Opportunities for Meaningful Participation), schools with reduced suspension rates showed less of a substantial decline than those where suspension rates increased or remained stable.

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*On six of the eight school climate indicators, schools with declines in suspension rates demonstrated more positive trends than schools with suspension rates that increased or remained stable. The most negative outcomes were found for schools where suspension rates increased during the study period.*

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Schools that experienced *increases* in suspension rates (0.3 percentage points or more per year) experienced the most negative trends in school climate on six indicators (School Connectedness, Caring Adult Relationships, High Expectations, Opportunities for Meaningful Participation, Perceived School Safety, and Victimization), compared to other schools that administered the CHKS. For five of the eight indicators, schools with stable suspension rates show downward trends in the mid-range, between those of schools with increased suspension rates and schools with decreased rates. However, both Victimization and Bullying and Harassment declined most at schools with stable suspension rates, while Violence Perpetration declined the least at these schools during the same time period.

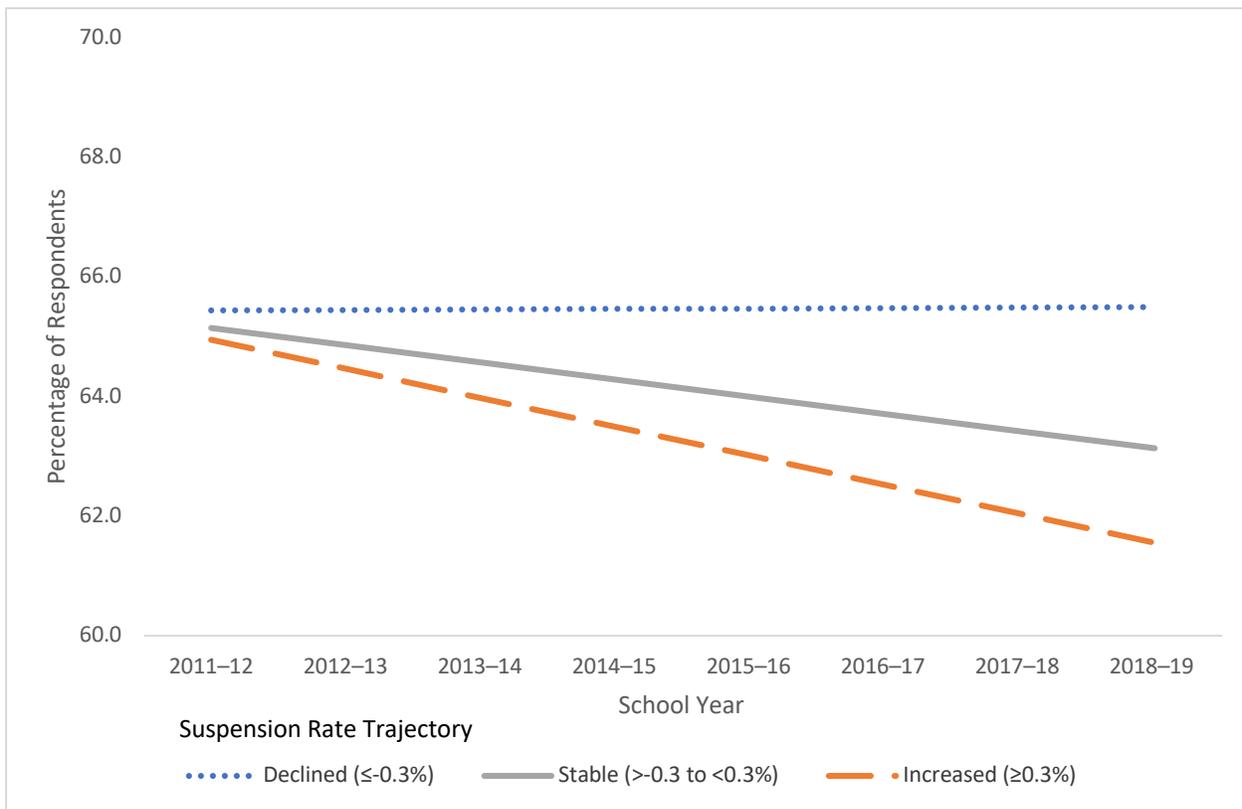
It should be noted that for some of these indicators, the trends in the aggregated local CHKS differ from those in the Biennial State CHKS sample. For example, in the Biennial State sample, there were improvements in Bullying and Harassment, Victimization, and Violence Perpetration, and School Connectedness remained stable from 2011–13 to 2017–19. However, the aggregated local data only indicated a small, nonsignificant improvement in School Connectedness for those schools with decreased suspension rates during the same period. This disparity is due to the differences in the samples and nature of the analyses.

### **School Connectedness**

School Connectedness was stable among schools that reduced suspension rates and declined among schools with increased and stable suspension rates (Figure 5). Among schools with stable suspension rates, School Connectedness decreased by 2 percentage points (65.1 to 63.1 percent) over seven years. School Connectedness declined by 3 percentage points over seven years in schools with increases in suspension rates.

While the divergence across suspension rate trajectories is not large in absolute terms, the downward trend for School Connectedness at schools with increases in suspension rates is significantly different from the trends at schools whose suspension rates decreased or remained stable during the same period. (See Appendix D for more detailed results from the multilevel regression performed for each indicator.)

**FIGURE 5.**  
**School Connectedness, by Suspension Rate Trajectory Profile and Survey Year**

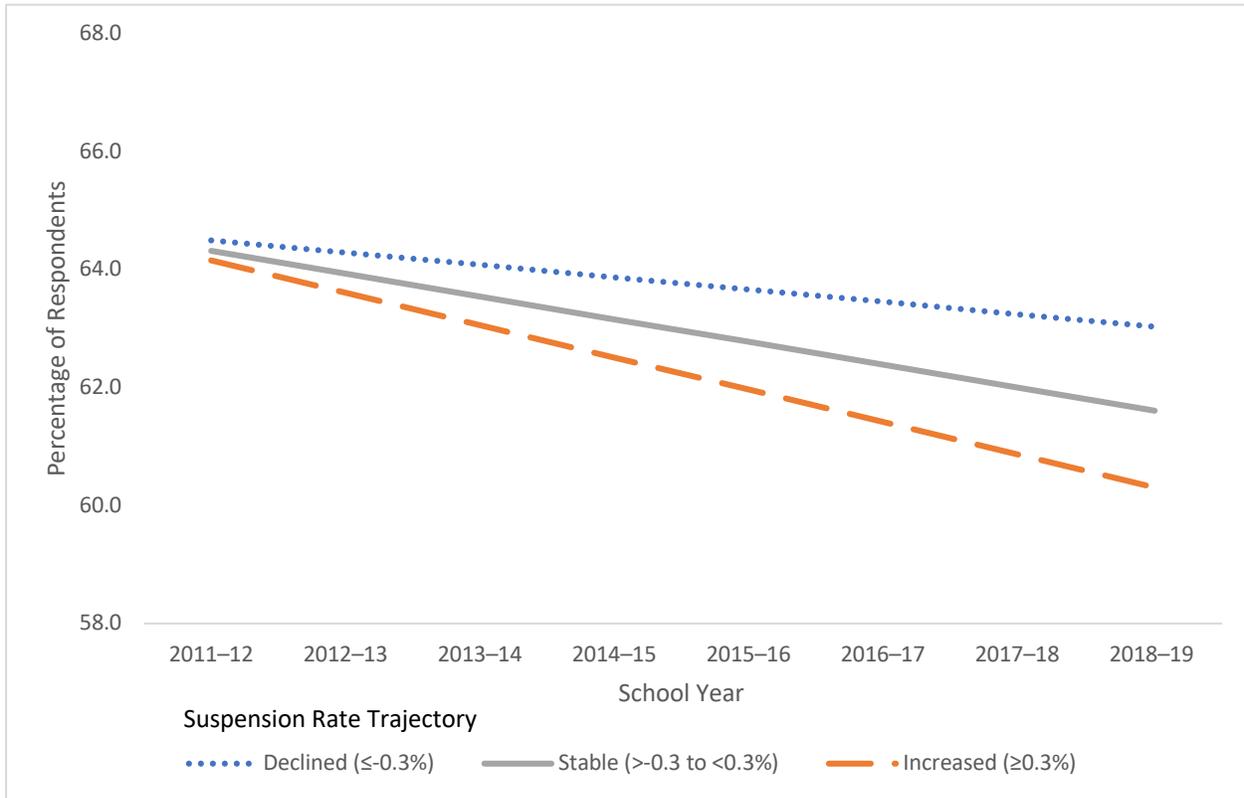


**Note:** Each line represents the change in percentage of 7th grade students responding, on average, “agree” or “strongly agree” to survey items in the School Connectedness scale, based on aggregated local CHKS data.

### Caring Adult Relationships in School

Caring Adult Relationships declined for all suspension trajectories, but the indicator declined the least in schools with declines in suspension rates. In contrast, Caring Adult Relationships declined the most in schools with increases in suspensions (Figure 6). As with School Connectedness, the differences between these trends are relatively small in absolute terms (3 percentage points at most after seven years), but they are statistically significant.

**FIGURE 6.**  
**Caring Adult Relationships in School, by Suspension Rate Trajectory and Survey Year**

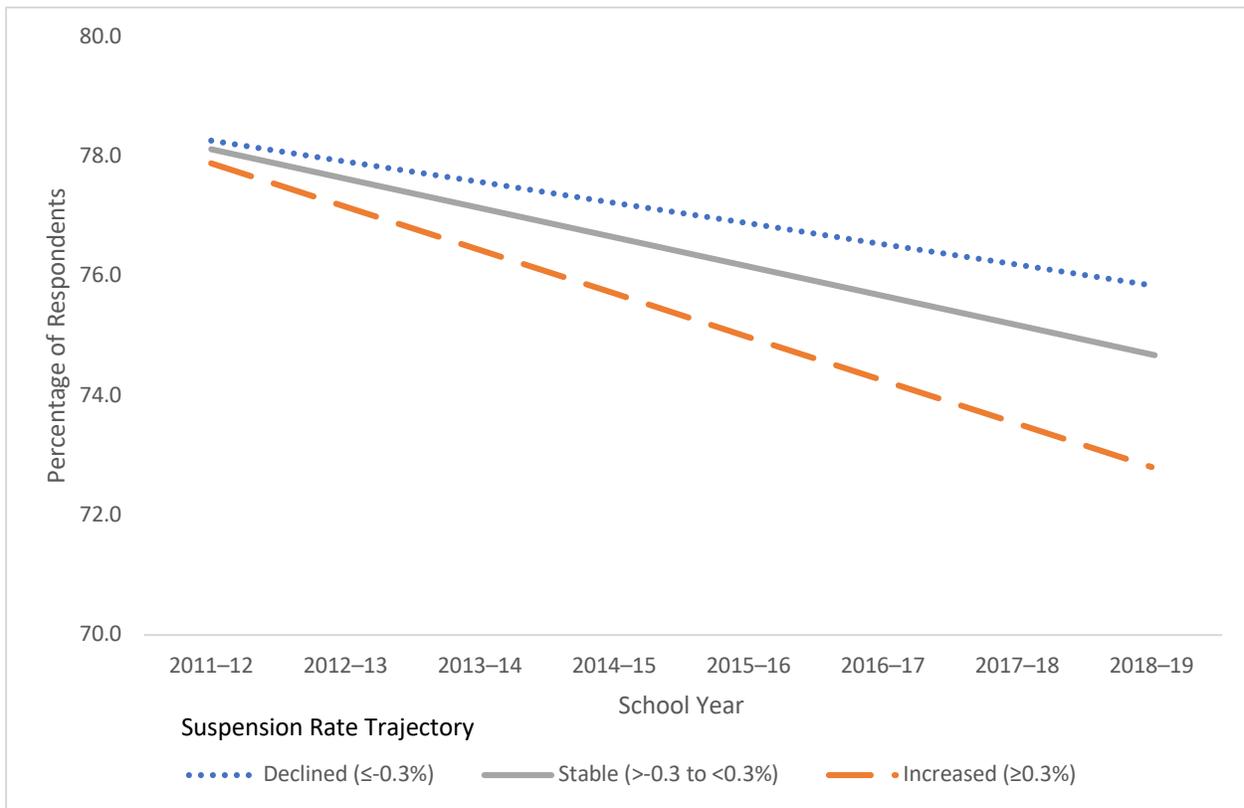


**Note:** Each line represents the change in percentage of 7th grade students responding, on average, “pretty much true” or “very much true” to survey items in the Caring Adult Relationships scale, based on aggregated local CHKS data.

### High Expectations in School

Student perceptions of being held to high expectations by adults at school declined in schools across all suspension rate trajectories (Figure 7). However, this indicator declined the least among schools with declines in suspension rates. Furthermore, High Expectations declined the most among schools that experienced increases in suspension rates. The differences in High Expectations between schools in the three suspension rate trajectory categories are statistically significant.

**FIGURE 7.**  
**High Expectations, by Suspension Rate Trajectory and Survey Year**

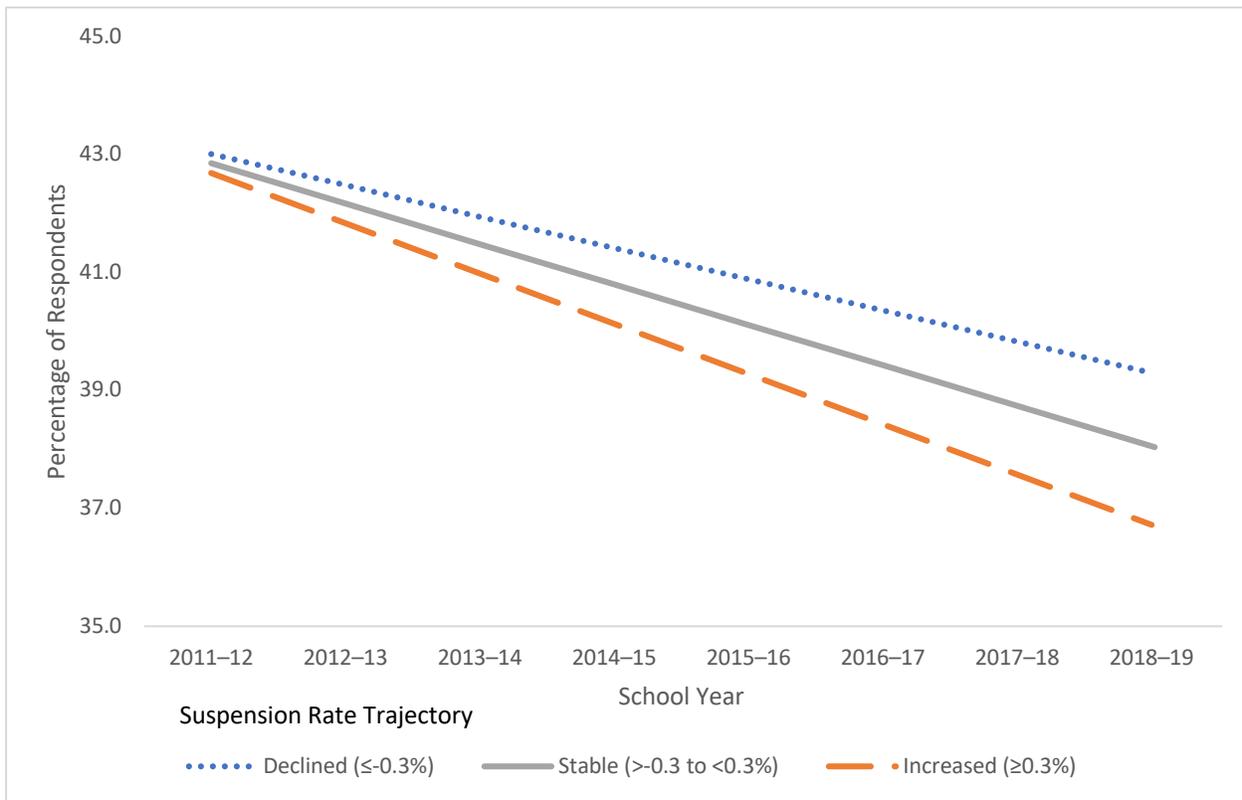


Note: Each line represents the change in percentage of 7th grade students responding, on average, “pretty much true” or “very much true” to items in the High Expectations scale, based on aggregated local CHKS data.

### Opportunities for Meaningful Participation in School

Student perceptions of Opportunities for Meaningful Participation in school declined among schools in all suspension rate trajectory categories from 2011–12 to 2018–19. However, that decline was smallest in schools where suspensions decreased and largest in schools where suspension rates increased, respectively (Figure 8). Differences across suspension trajectory groups were statistically significant for this indicator.

**FIGURE 8.**  
**Opportunities for Meaningful Participation, by Suspension Rate Trajectory and Survey Year**

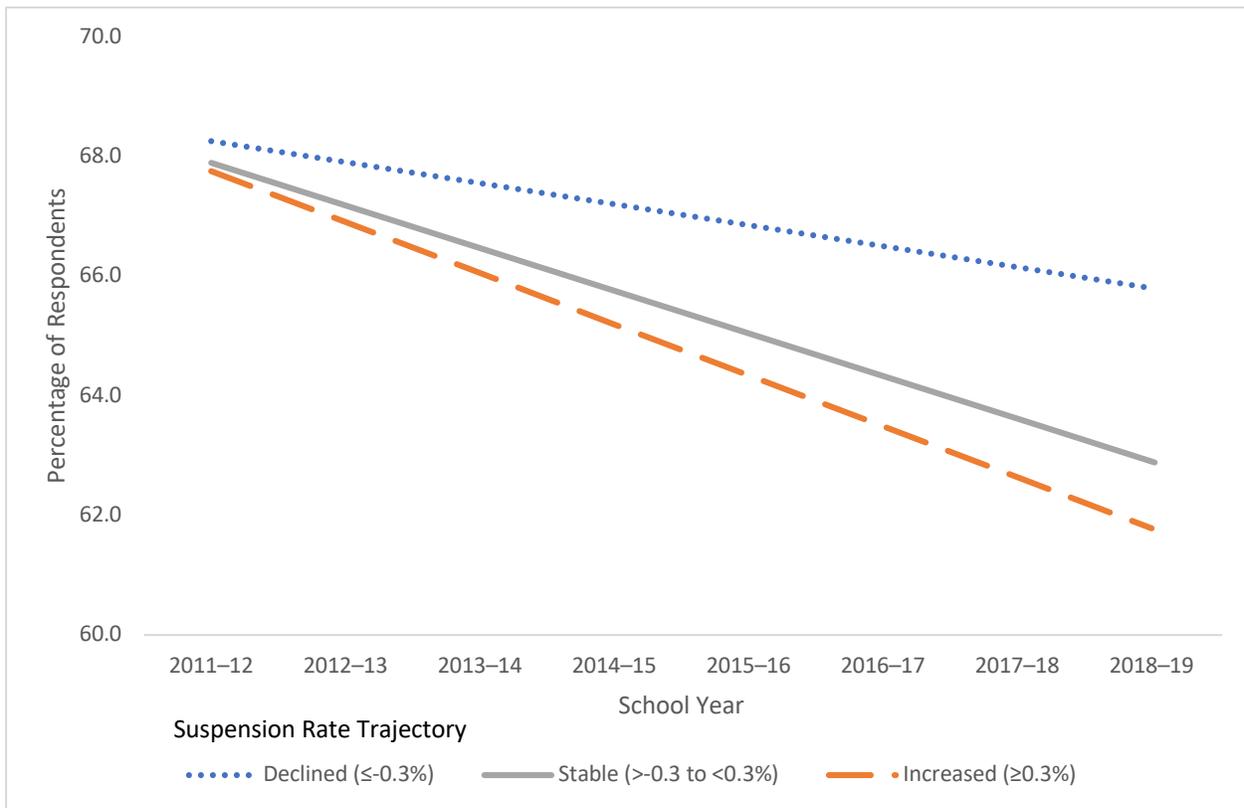


**Note:** Each line represents the change in percentage of 7th grade students responding, on average, “pretty much true” or “very much true” to items in the Opportunities for Meaningful Participation scale, based on aggregated local CHKS data.

### Perceptions of School Safety

Student perceptions of school safety (feeling safe or very safe) declined among all suspension trajectory groups from 2011–12 to 2018–19, but the smallest declines were in schools where suspension rates declined (Figure 9). School safety declined more among schools where suspension rates were stable or increased during the same period. Trends in Perceived School Safety were significantly different between schools with increasing suspension rates and those with decreasing suspension rates.

**FIGURE 9.**  
**Perceived School Safety, by Suspension Rate Trajectory and Survey Year**

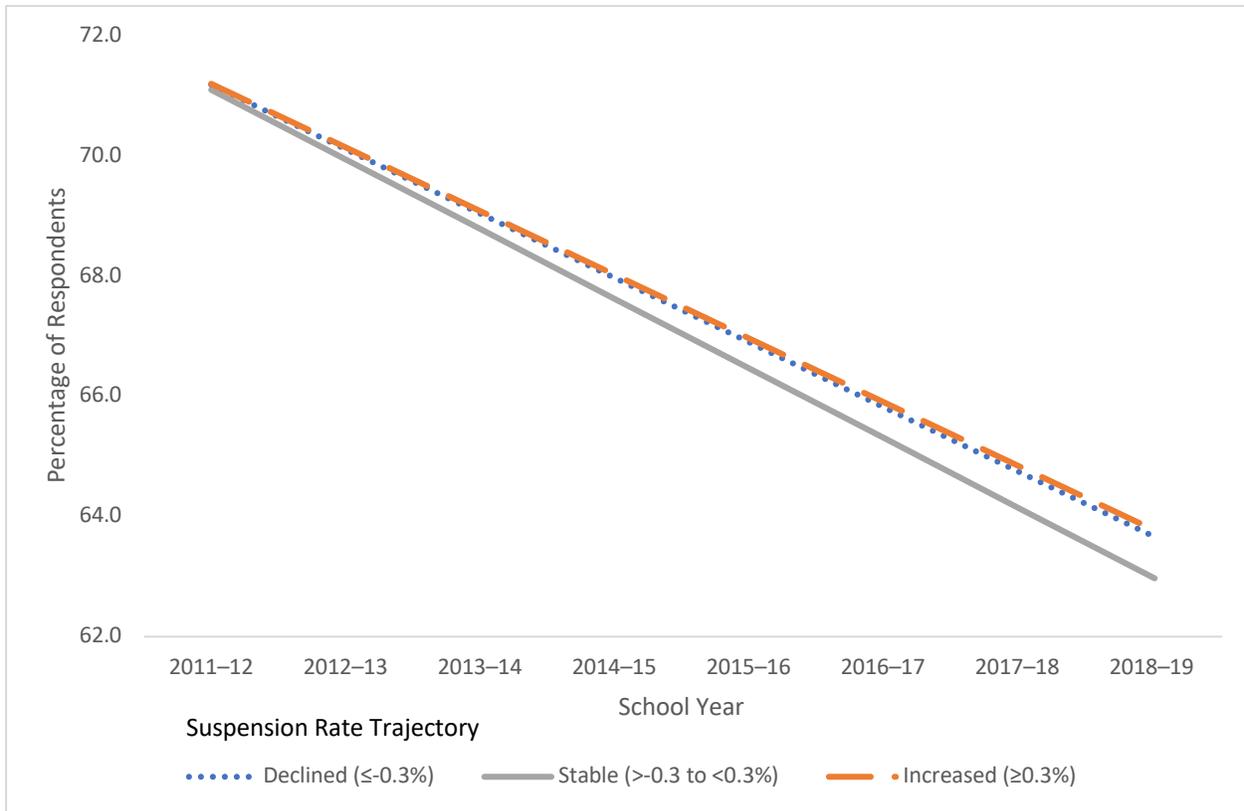


**Note:** Each line represents the change in percentage of 7th grade students responding “safe” or “very safe” to the Perceived School Safety survey item, based on aggregated local CHKS data.

### Bullying and Harassment at School

Bullying and Harassment declined among all suspension trajectory groups during the period analyzed and there were no statistically significant differences across suspension trajectory groups (Figure 10). Differences across suspension trajectory groups were not statistically significant for this indicator.

**FIGURE 10.**  
**Bullying and Harassment, by Suspension Rate Trajectory and Survey Year**

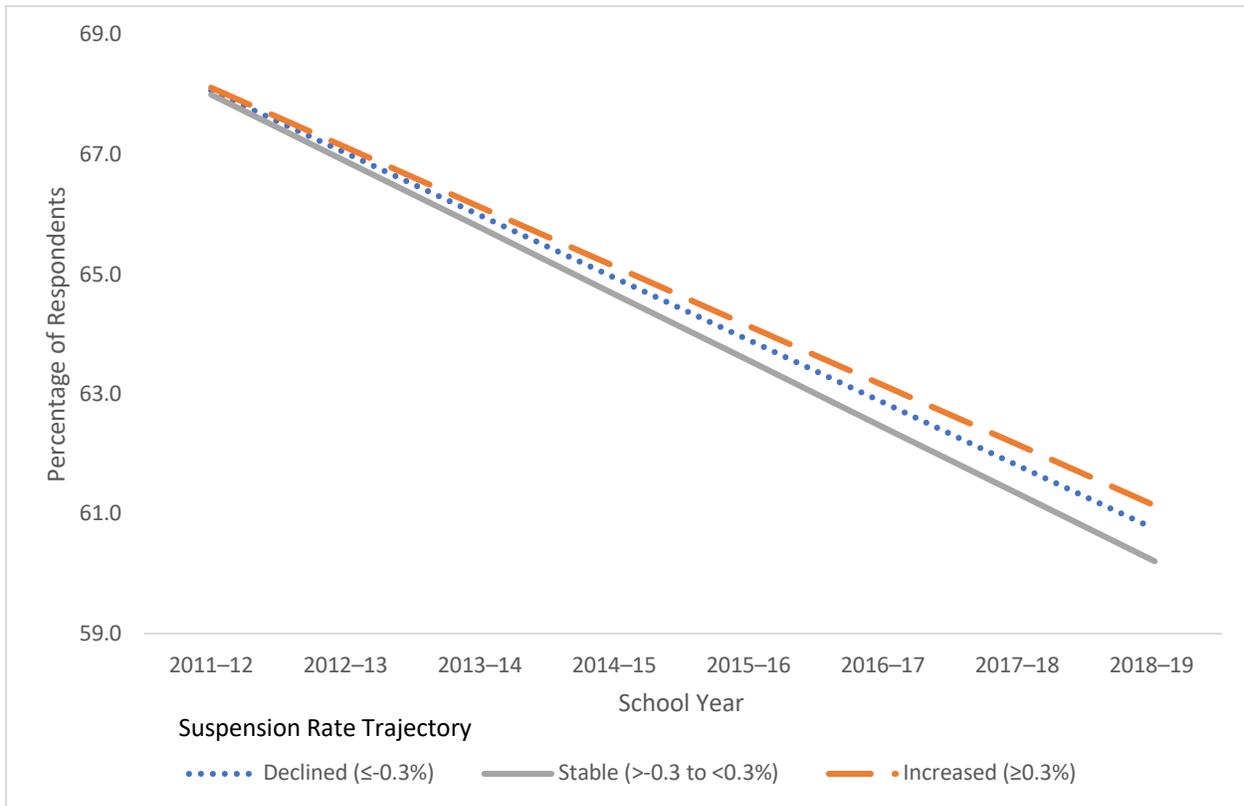


**Note:** Each line represents the change in percentage of 7th grade students responding “1 time,” “2–3 times,” or “4 or more times” to one or more survey items on the Bullying and Harassment scale, based on aggregated local CHKS data. The line showing changes in Bullying and Harassment at schools with declines in suspension rates (equal to or greater than 0.3 percentage points per year) is overlapped by the line for schools with increases in suspension rates (equal to or greater than 0.3 percentage points per year).

### Victimization

Victimization declined in all suspension trajectory groups (Figure 11). However, differences across suspension trajectory groups were not statistically significant for this indicator.

**FIGURE 11.**  
**Victimization, by Suspension Rate Trajectory and Survey Year**



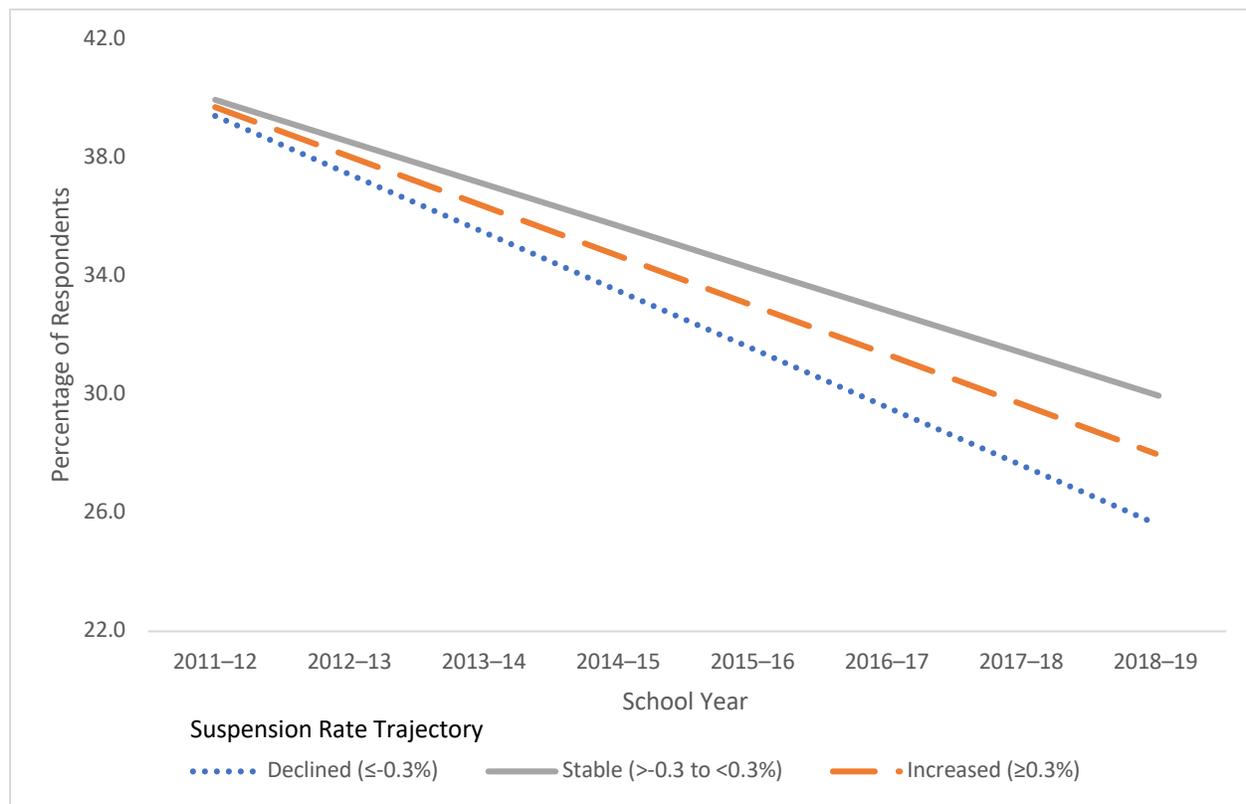
**Note:** Each line represents the change in percentage of 7th grade students responding, on average, “1 time,” “2–3 times,” or “4 or more times” to one or more survey items on the Victimization scale, based on aggregated local CHKS data.

## Violence Perpetration

Violence Perpetration declined in all suspension trajectory groups, with the largest decline in schools where suspension rates decreased (Figure 12). The decline in Violence Perpetration was smaller among schools with increasing suspension rates, but the smallest decline was among those schools where suspension rates remained stable over time. **Differences across suspension trajectory groups were statistically significant for this indicator.**

FIGURE 12.

### Violence Perpetration, by Suspension Rate Trajectory and Survey Year



Note: Each line represents the change in percentage of 7th grade students responding “1 time,” “2–3 times,” or “4 or more times” to one or more survey items on the Violence Perpetration scale, based on aggregated local CHKS data.

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# Discussion

In recent years there has been increased awareness of the negative impact of out-of-school suspensions on students. Research shows that punitive discipline is an ineffective and potentially detrimental strategy for improving school climate, school safety, and student educational and developmental outcomes. Reducing schools' use of out-of-school suspensions is an important policy lever that directly increases instructional time for students (Losen & Whitaker, 2017), particularly for students of color and students with disabilities (Losen & Martinez, P., 2020); negative student perceptions of school climate have consistently been linked to schools' use of out-of-school suspensions (American Psychological Association Zero Tolerance Task Force, 2008; McNeely et al., 2002; Peguero & Bracy, 2014; Perry & Morris, 2014; Sartain et al., 2015). Research further suggests that schools' use of out-of-school suspensions may disproportionately harm students of color, LGBTQ students, students who are English language learners, and students with disabilities (Voight & Nation, 2016). The findings of this report confirm that California middle schools overall have made significant reductions in their use of out-of-school suspensions and demonstrate that changes in suspension policy over time are related to students' experiences in school and perceptions of school climate.

## Trends in Suspension Rates and School Climate Measures (2011–2019)

The findings presented here show that the average rate of school suspensions statewide declined considerably between 2011–12 and 2014–15, with more gradual declines after 2014–15. In the 2011–12 school year, 9.72 percent of students on average were suspended at middle schools in California, and in the 2018–19 school year, that number had dropped to 6.17 percent. This decrease in the overall rate of suspensions is in line with the intention of several policy changes in the state during the same time period, though it is not possible to determine whether those policy changes are the cause of the decline.

Other studies have also found school suspension rates in California to have decreased in recent years. For example, Losen and Martin (2018) showed a statewide decline in the amount of instructional time that students in California lost to disruption and defiance and other categories of suspensions annually from 2011–12 to 2016–17. However, the decline in suspension rates leveled off after 2014–15, and in 2016–17, 7th and 8th graders lost more instructional time to suspensions than any other age group. Notably, schools have been required since 2014 to indicate (in Local Control and Accountability Plans) how they plan to reduce suspensions. It is possible that attention to high out-of-school suspension rates during the early part of the 2010s and their negative consequences had an initial influence in reducing rates, but the influence of that attention was time-limited. Further declines statewide may require a more systemic effort to create supportive school environments for all students — including provision of resources, services, and training in alternative strategies — in order to reduce the more serious behavioral problems that lead to suspensions and to provide the help that students need.

As discussed further in the following paragraphs, there appears to be a symbiotic relationship between out-of-school suspensions and school climate. Nevertheless, at the same time that school suspension rates were dropping between 2011–13 and 2017–19, school climate at the state level — as measured by the Biennial State CHKS — improved for only three of the eight indicators (Bullying and Harassment, Victimization, and Violence Perpetration). Between 2011–13 and 2013–15, most of the eight climate indicators showed no improvement, and High Expectations and Caring Adult Relationships were declining. Improvements occurred for all eight school climate measures between the 2013–15 and 2015–17 survey administrations. The positive change from 2013–15 to 2015–17 may reflect the state’s inclusion of school climate indicators in the Local Control Funding Formula system beginning in 2014. However, this would not account for the reversal in 2017–19 on two LCAP indicators: school safety and school connectedness. Clearly more attention needs to be paid to fostering safer, more supportive, and engaging schools.

## Relationships Between Changes Over Time in Suspension Rates and Changes in School Climate Measures (2011–2019)

Previous research has found an association between high rates of out-of-school suspension and less positive school climate (Skiba & Losen, 2016). However, there has been less evidence to indicate that reducing school suspension rates is enough to improve school climate. Reduction in a school’s suspension rate alone may not be sufficient to reverse the effects of a punitive school culture or to improve other climate-related conditions, such as students’ relationships with their teachers and other school staff. Analyses presented here suggest that there is likely a relationship between changes in school suspension rates and changes in school climate over time. The findings show that schools that experienced declines in suspension rates (more than 0.3 percentage points per year) also exhibited the greatest school climate improvements on most of the outcomes examined. Conversely, schools that experienced increases in suspension rates (more than 0.3 percentage points per year) also exhibited the most negative trends on most of the school climate outcomes examined. Differences between suspension rate trajectory groups were found to be statistically significant on six of the eight indicators — School Connectedness, Caring Adult Relationships, High Expectations, Opportunities for Meaningful Participation, Perceived School Safety, and Violence Perpetration.

**Assessing Causality.** Because these analyses only explored correlations between school suspension rates and school climate indicators, the analyses could not determine the extent to which the improvements in school climate (or less negative trends in the school climate indicators) were directly the result of greater declines in school suspension rates. For example, it is possible (even likely) that the correlation between declines in suspension rates and improvements in school climate indicators, where it occurred, was related not simply to changes in suspension policies but also to wider efforts to address school climate. Such efforts to improve school climate may have been in response to Local Control and Accountability Plan (LCAP) requirements and the guidance of discipline reform advocates, who placed the issue of discipline in the context of school climate. Any school that was seeking to reduce out-of-school suspensions was likely to also focus on improving school climate through other means, including

by addressing underlying factors that contributed to young people being suspended and by providing misbehaving young people with supports to change their behavior, connect them to the school, and engage them in learning. There may also have been other school initiatives and community factors that affected both a school's use of suspensions and school climate.

Future research is needed to determine what other factors might be influencing this association between changes in suspension rates and school climate experiences. Nonetheless, as reform advocates argue, it is possible that the reform in suspension policies itself contributed to students' improved experiences and perceptions in school, as reported on the CHKS. This conclusion is supported by the finding that school climate trends were most negative in schools where suspension rates increased. What is clear is that the evidence from this analysis is consistent with the findings of Losen and Martin (2018) and does not support concerns that disciplinary reforms *per se* would reduce overall school safety. Results for Perceived School Safety and Violence Perpetration were most positive among schools where suspension rates declined.<sup>11</sup> The group differences on Perceived School Safety are particularly important as this is a psychological indicator that is linked to school connectedness and engagement. Accordingly, suspension reform may need to occur within the context of overall school climate improvement.

**The Role of Developmental Supports.** Research indicates that developmental supports can play critically important roles in fostering safer and more positive school climates, in promoting school connectedness and pupil engagement, and in helping youth develop social-emotional competencies related to school success (Benard, 2004; Voight et al., 2013; Austin et al., 2011). Analyses using aggregated local CHKS data show that the declines in the three measures of Developmental Supports (High Expectations, Caring Adult Relationships, and Meaningful Opportunities for Participation) were greatest in schools where suspension rates increased the most. However, in schools that had decreases in suspension rates, the three measures of developmental supports declined the least. The Biennial State CHKS data show that all three measures of Developmental Supports *worsened* between 2011–13 and 2017–19. While the negative trend in the three CHKS measures of developmental supports is disconcerting, it is possible that more time is needed to see the full effects of reduced suspension rates on these particular school climate measures. The findings presented here suggest that schools may need to be more intentional in pursuing a multi-pronged approach to improving school climate. Such an approach might integrate alternatives to exclusionary discipline as just one of many strategies to improve the learning environment for all students, including focusing more attention on providing students with these fundamental developmental supports linked to positive educational and other outcomes.

**Implications for the California School Data Dashboard.** The results presented here support California's inclusion of school suspension rates as an indicator for the LCAP school climate priority on California's School Dashboard. In schools where suspension rates declined and in those where suspension rates increased, changes in School Connectedness, Caring Adult Relationships, High Expectations, Opportunities for Meaningful Participation, and Perceived School Safety followed the patterns that might be expected if reductions in school suspension rates were associated with improvements in school climate. However, declining suspension rates were not as clearly associated with reductions in

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<sup>11</sup> Trends in Victimization and in Bullying and Harassment did not statistically differ across schools with different suspension rate trajectories.

Bullying and Harassment or Victimization, indicating some limits to the value of suspension rates as a singular indicator of overall school climate. In addition, exclusionary discipline practices such as out-of-school suspensions do not represent the full array of factors that affect school climate. For the state dashboard to meaningfully reflect school climate, other indicators such as those used in this report need to be included. Inclusion of these other school climate indicators would also send a message to schools that they need to devote as much attention to improving these indicators as they do to addressing the use of suspensions.

**Differences in School Climate Trends Based on Biennial State CHKS and Aggregated Local CHKS Data.**

It is important to note that findings from the Biennial State CHKS and the aggregated local CHKS datasets differ in some respects. Data from the Biennial State CHKS suggest that three of the eight school climate measures — Bullying and Harassment (decrease of 5 percentage points), Victimization (decrease of 7 percentage points), and Violence Perpetration (decrease of 7 percentage points) — improved statewide between 2011–13 and 2017–19, while the analysis of the aggregated local CHKS data indicates that the schools in all suspension rate trajectory groups experienced, on average, annual declines in most of the school climate indicators from 2011–13 to 2018–19. These differences are due both to differences in the samples and to differences in analytic techniques. Although the aggregated local CHKS data are representative of each district and school participating in the survey, these districts are not necessarily representative of the state. In addition, the trends in school climate indicators assessed using the local CHKS data are based on fixed effects regression models that capture average annual within-school changes. These within-school trajectories do not capture changes in school climate in the state as a whole, but they do accurately capture how changes in a school’s suspension rate are related to changes in its school climate. In sum, the Biennial State CHKS provides the best estimates of statewide trends in school climate, while the analysis of aggregated local CHKS data are well-suited for examining how changes in school suspension rates are related to school-level changes in school climate.

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# Conclusion

The results presented in this report suggest that, overall, the reduction in suspensions in California middle schools has been associated with improvements in several aspects of school climate, such as perceptions of safety, relationships between students and staff, and students' feelings of connectedness to and belonging in school. The analyses cannot determine the extent to which school-, district-, and state-level changes in suspension policies contributed to these improvements in school climate indicators. The analyses are equally unable to assess whether trends in both suspension rates and school climate may have been influenced by other factors, such as a growing focus on creating safe, supportive, and engaging schools for all students as reflected in state LCAP requirements. Nevertheless, the results clearly indicate that, overall, the schools that recorded declines in suspension rates experienced more positive school climate indicator trends — including those for perceived school safety — than other schools, and that schools that recorded increases in suspension rates had the most negative school climate indicator trends. These results indicate that reductions in out-of-school suspension rates in California middle schools have not been associated with a decrease in school safety.

Any effort to improve school connectedness and learning engagement, to address educational inequities, and to foster conditions in which young people can thrive and succeed should consider the benefits of reducing out-of-school suspensions and other types of exclusionary discipline. But such reductions should be pursued in the context of a wider effort to improve school climate and student supports and to implement discipline alternatives, including providing staff with resources and training for successfully implementing alternative approaches. Further declines in the use of suspension would appear to be contingent on the success of these efforts, particularly in those schools which continue to record high suspension rates. Common discipline alternatives that have been shown to foster more positive school climates include Restorative Justice (RJ), Multi-Tiered System of Support (MTSS), and Positive Behavioral Interventions and Supports (PBIS). At their core, these models encourage mutual respect between educators and students, strengthen relationships, and hold students accountable for their actions.

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# Appendix A: About the California Healthy Kids Survey

Data in this report are derived from the California Healthy Kids Survey (CHKS), developed in 1998 by WestEd for the California Department of Education (CDE). The CHKS, along with companion surveys for school staff and parents, is part of CDE's California School Climate, Health, and Learning Survey (CaSCHLS) System. The system's overarching goal is to provide data to help schools and communities:

- Create safe, supportive, and engaging environments for students, staff, and parents;
- Promote the successful cognitive, social, emotional, and physical development of all students; and
- Foster academic success, college and career readiness, and overall health and well-being.

CaSCHLS focuses primarily on identifying and addressing the needs of the whole child. Built on the understanding that research has shown the importance of schools being not only academically challenging but also supportive, caring, participatory, equitable, safe, and healthy for all stakeholders, the CaSCHLS system provides data to determine how well schools are doing in meeting these goals. The CHKS helps identify the needs of students; the staff survey, which indicates the extent to which schools are meeting those needs; and the parent survey, which indicates the degree to which the school is supportive and welcoming of parents and the level of parents' involvement in their students' education.

**Local Control and Accountability Plan (LCAP) Alignment.** CHKS and CaSCHLS content align with the state priorities and data requirements that California school districts must address in their annual LCAPs. This alignment is particularly strong with regard to five priorities: school climate (connectedness and safety), pupil engagement, parental involvement, school facilities, and underserved subgroup needs.

## Content

The CHKS is a modular, anonymous assessment designed to be completed by students ages 10 (grade 5) and older. It focuses on five areas deemed most important for guiding school and student improvement:

- Student connectedness, learning engagement/motivation, school attendance (truancy, frequency, and reasons for absences), and academic performance (self-reported grades);
- School climate, culture, and conditions;
- School safety, including violence perpetration and victimization/bullying;
- Physical and mental well-being and social-emotional learning; and

- Student supports, including resilience-promoting developmental factors (presence of caring adult relationships in school, being held to high expectations by adults in school, and presence of opportunities for meaningful participation in the school community).

The CDE requires that all schools participating in the survey administer a Core Module containing key indicators that were identified by CDE staff and an expert advisory committee as most important for all schools and communities to assess. Participating districts administer the survey to 7th and 9th graders and are encouraged to administer it to 5th and 11th graders. Districts can elect to customize their survey by adding 1 or more of 16 supplementary modules or adding questions of their own selection.

**Assessing Population Subgroup Needs.** The secondary CHKS Core Module provides a wealth of demographic and background information for student respondents, enabling all CHKS data to be analyzed by multiple population subgroups and allowing researchers and participating schools to identify student needs. Information is collected on race/ethnicity, gender, financial status, English learner status, foster care system involvement, sexual orientation and identity, military-connectedness, and homelessness. Data can also be analyzed by group based on respondents' self-reported behavioral characteristics, such as truancy, chronic absenteeism, and self-reported experiences of being disconnected or disengaged, being bullied, having poor mental health, or engaging in risk behaviors such as substance use, violence, or gang membership.

**Supplemental School Climate Module.** The most popular CHKS supplement is the School Climate Module, currently administered by about one third of districts. The School Climate Module contains scales assessing academic mindset, teacher academic supports, how fair and equitable the school environment is, respect for diversity, clarity of school rules, discipline harshness, bullying prevention, social-emotional supports, positive peer relationships, and quality of school facilities and drinking water.

## District Administration

Participation in the CHKS is voluntary; districts have the option of whether or not to administer it. Historically, the great majority of districts have chosen to administer the CHKS Core Module in all schools every other year. Thus, it takes two years to assemble a dataset that includes the results from all the participating districts. However, since the implementation of LCAP requirements in 2014, a growing number of districts administer the CHKS annually. During the two academic years spanning 2017–19, the CHKS was administered by over 70 percent of California school districts to an average of about 600,000 elementary and secondary students per year (generally grades 5, 7, 9, and 11). One quarter of the districts in the state administered the CHKS in both 2017–18 and 2018–19.

## Biennial State Sample

Every other year, WestEd identifies and recruits a random sample of secondary schools from across the state to complete (over a two-year period) the CHKS Core Module and a supplemental module on Alcohol and Other Drugs. WestEd uses these data to provide statewide norms for the CHKS. More information about the CHKS can be found at <https://calschls.org/>.

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# Appendix B: About the California Healthy Kids Survey School Climate Measures

The eight California Healthy Kids Survey (CHKS) measures selected for this study provide insight into students' perceptions of school climate, including levels of safety, support, and engagement. School connectedness and perceived school safety are especially important because they are school climate indicators that California school districts must monitor and report upon in their state-required Local Control and Accountability Plans, based on the understanding that learning and positive development are less likely to occur if students do not feel safe at school. The CHKS School Connectedness scale is also a particularly important indicator of overall school climate, as a large body of research has consistently demonstrated that school connectedness is linked to multiple positive outcomes. The CHKS School Connectedness scale is derived from the National Longitudinal Study of Adolescent Health, which has found that young people who felt “connected” to school — as measured by feeling safe at, close to, happy at, a part of, and treated fairly at the school — were likely to be healthier and do well in school, and be less likely to engage in problem behaviors ranging from alcohol, tobacco, and other drug use to emotional distress, unsafe sexual practices, and acts of violence toward others (Resnick et al., 1997; McNeely et al., 2002).

Equally important indicators are three developmental supports or environmental protective factors, measured by a composite of three items on the CHKS survey, that consistently have been shown to help meet the basic developmental needs that all people have and foster resiliency and multiple positive academic, behavioral, and psychological outcomes: caring adult relationships, high expectation messages, and opportunities for meaningful participation and contribution.

- **Caring Relationships.** Arguably, the existence of caring relationships between young people and adults is the most powerful of developmental supports. A single positive, trusting relationship with a caring adult can make an enormous difference in the ability of children to overcome a host of negative life experiences.
- **High Expectations.** Effective high-expectation messages convey that adults in the school believe students can and will succeed, that they won't give up on them but will encourage and help them to do their best by nurturing each young person's unique strengths and pathways to success.
- **Opportunities for Meaningful Participation and Contribution.** These supports are activities and opportunities that contribute to a student's sense of autonomy and control, give them voice, increase their involvement in school/community, and engage their interests.

When students experience school environments rich in these three developmental supports, they are more likely to develop a sense of school connectedness, be less involved in risk behaviors that are barriers to learning and can lead to suspensions, and acquire the social-emotional competencies that will help them succeed (Benard, 2004; Voight et al., 2013; Austin et al., 2011).

The remaining three indicators provide more detailed insight into conditions that affect perceived safety: the frequency with which students experience harassment or bullying, are emotionally or physically victimized, and engage in violence perpetration.

# Appendix C: Data Tables, Research Question 1

TABLE C1.

## Average Overall Suspension Rate for California Middle Schools, by School Year, 2011–2019

School Year	Mean	SD	Observations
2011/12	9.78	7.13	1,184
2012/13	8.62	6.39	1,198
2013/14	7.78	6.06	1,200
2014/15	6.56	5.36	1,202
2015/16	6.45	5.14	1,200
2016/17	6.52	5.06	1,204
2017/18	6.37	4.77	1,203
2018/19	6.35	4.87	1,191
<b>Total</b>	<b>7.32</b>	<b>5.79</b>	<b>9,582</b>

Note: Middle schools refers to schools classified as “Intermediate/Middle School (Public)” and those classified as “Junior High School (Public)” in California.

TABLE C2.

## Average Suspension Rates for California Middle Schools That Administered the Local CHKS for Fewer Than 2 Years, 2011–2019

Survey Year	Mean	SD	Observations
2011/12	8.90	6.78	229
2012/13	7.79	6.63	232
2013/14	6.56	6.44	227
2014/15	5.58	5.96	223
2015/16	5.34	5.13	221
2016/17	5.28	5.35	224
2017/18	5.13	4.95	226
2018/19	5.46	5.54	223
<b>Total</b>	<b>6.31</b>	<b>6.04</b>	<b>1,805</b>

Note: Middle schools refers to schools classified as “Intermediate/Middle School (Public)” and those classified as “Junior High School (Public)” in California.

TABLE C3.

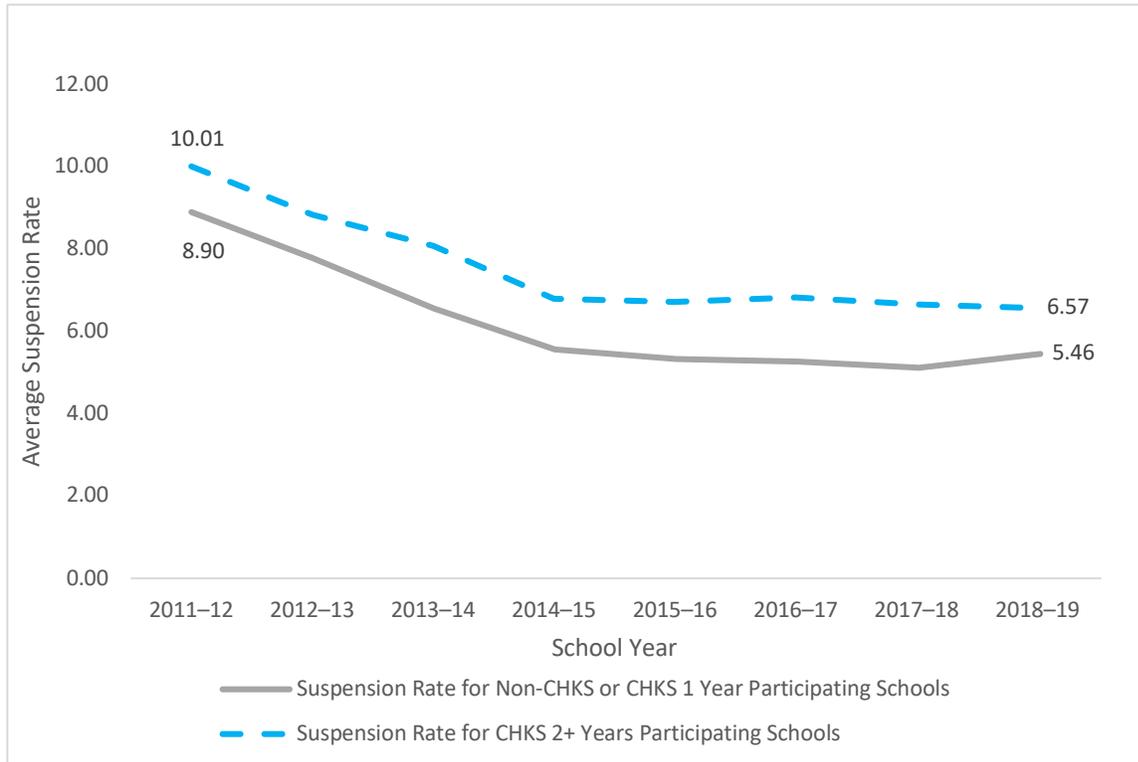
**Average Suspension Rates for California Middle Schools That Administered the CHKS for 2 or More Years, 2011–2019**

<b>Survey Year</b>	<b>Mean</b>	<b>SD</b>	<b>Observations</b>
2011/12	10.01	7.21	955
2012/13	8.83	6.31	966
2013/14	8.07	5.94	973
2014/15	6.80	5.19	979
2015/16	6.71	5.11	979
2016/17	6.82	4.94	980
2017/18	6.66	4.68	977
2018/19	6.57	4.67	968
<b>Total</b>	<b>7.57</b>	<b>5.70</b>	<b>7,777</b>

Note: Middle schools refers to schools classified as "Intermediate/Middle School (Public)" and those classified as "Junior High School (Public)" in California.

FIGURE C1.

**Average Overall Suspension Rates for Schools, by Number of Annual CHKS Survey Administrations and Survey Year, 2011–2019**



**Note:** This study analyzed the relationship between school climate and suspension rates using data from 985 schools for which both (a) suspension data and (b) two or more years of annual CHKS data were available for the period of 2011–12 to 2018–19. The 246 schools that administered the CHKS fewer than two times during this period were not included in the analytic sample for Research Question 2.

TABLE C4.

**Average CHKS School Climate Indicators, Based on Data from the Biennial State CHKS, 2011–2019**

Variable	2011–13 Mean	2011–13 SD	2013–15 Mean	2013–15 SD	2015–17 Mean	2015–17 SD	2017–19 Mean	2017–19 SD
School Connectedness	0.60	0.33	0.61	0.33	0.68	0.32	0.61	0.33
Caring Adult Relationships	0.63	0.37	0.60	0.38	0.65	0.37	0.60	0.38
High Expectations	0.80	0.30	0.74	0.35	0.78	0.33	0.74	0.35
Opportunities for Meaningful Participation	0.40	0.35	0.40	0.36	0.43	0.37	0.35	0.35
Bullying and Harassment	0.40	0.49	0.40	0.49	0.34	0.47	0.35	0.48
Violence Perpetration	0.31	0.46	0.25	0.43	0.20	0.40	0.24	0.42
Victimization	0.70	0.46	0.67	0.47	0.62	0.48	0.64	0.48
Perceived School Safety	0.63	0.48	0.62	0.48	0.70	0.46	0.60	0.49

# Appendix D: Data Tables, Research Question 2

## Subsample Suspension Rates Analysis

TABLE D1.

**Distribution of Schools in Aggregated Local CHKS Sample, by Suspension Rate Trajectory and by Year**

Suspension Rate Trajectory	2011–12	2012–13	2013–14	2014–15	2015–16	2016–17	2017–18	Total
Declined ( $\leq -0.3$ per year)	275	135	50	18	15	16	4	513
Stable ( $> -0.3$ & $< 0.3$ per year)	131	94	40	16	4	9	1	295
Increased ( $\geq 0.3$ per year)	65	44	20	22	10	14	2	177
Total	471	273	110	56	29	39	7	985

## School Connectedness

TABLE D2.

**Multilevel Regression Model Predicting Student School Connectedness in CHKS Schools**

Suspension Rate Trajectory	B	SE	t	p-value
Declined	0.01	0.02	0.39	0.69
Stable	-0.29	0.03	-10.82	0.00
Increased	-0.48	0.04	-11.52	0.00
Constant	65.43	0.08	813.39	0.00

Note: Intra-class correlation = 0.06;  $F(984, 994297) = 47.77$ ;  $p < .01$

TABLE D3.

**Statistical Significance of Differences Between Suspension Rate Trajectories, School Connectedness**

	Declined	Stable	Increased
Declined	-	*	*
Stable		-	*
Increased			-

\*  $p < .05$ ; NS = non-significant

## Relationships With Caring Adults in School

TABLE D4.

**Multilevel Regression Model Predicting Caring Adult Relationships in CHKS Schools**

Suspension Rate Trajectory	B	SE	t	p-value
Declined	-0.21	0.02	-8.69	0.00
Stable	-0.38	0.03	-12.19	0.00
Increased	-0.55	0.05	-11.20	0.00
Constant	64.71	0.09	687.75	0.00

Note: Intra-class correlation = 0.03;  $F(984, 980126) = 22.00$ ;  $p < .01$

TABLE D5.

**Statistical Significance of Differences Between Suspension Rate Trajectories, Caring Adult Relationships**

	Declined	Stable	Increased
Declined	-	*	*
Stable		-	*
Increased			-

\*  $p < .05$ ; NS = non-significant

## High Expectations

TABLE D6.

### Multilevel Regression Model Predicting High Expectations in CHKS Schools

Suspension Rate Trajectory	B	SE	t	p-value
Declined	-0.35	0.02	-15.61	0.00
Stable	-0.48	0.03	-17.04	0.00
Increased	-0.73	0.04	-16.21	0.00
Constant	78.61	0.09	914.35	0.00

Note: Intra-class correlation = 0.02;  $F(984, 979066) = 15.60$ ;  $p < .01$

TABLE D7.

### Statistical Significance of Differences Between Suspension Rate Trajectories, High Expectations

	Declined	Stable	Increased
Declined	-	*	*
Stable		-	*
Increased			-

\*  $p < .05$ ; NS = non-significant

## Opportunities for Meaningful Participation in School

TABLE D8.

### Multilevel Regression Model Predicting Opportunities for Meaningful Participation in CHKS Schools

Suspension Rate Trajectory	B	SE	t	p-value
Declined	-0.53	0.02	-22.50	0.00
Stable	-0.68	0.03	-22.86	0.00
Increased	-0.85	0.05	-18.07	0.00
Constant	43.54	0.09	481.56	0.00

Note: Intra-class correlation;  $F(984, 983698) = 21.67$ ;  $p < .01$

TABLE D9.

**Statistical Significance of Differences Between Suspension Rate Trajectories, Opportunities for Meaningful Participation**

	Declined	Stable	Increased
Declined	-	*	*
Stable		-	*
Increased			-

\*  $p < .05$ ; NS = non-significant

## School Safety

TABLE D10.

**Multilevel Regression Model Predicting Perceived School Safety in CHKS Schools**

Suspension Rate Trajectory	B	SE	t	p-value
Declined	-0.35	0.03	-11.19	0.00
Stable	-0.72	0.04	-18.17	0.00
Increased	-0.85	0.06	-13.64	0.00
Constant	68.61	0.12	570.39	0.00

Note: Intra-class correlation = 0.04;  $F(984, 955215) = 36.12$ ;  $p < .01$

TABLE D11.

**Statistical Significance of Differences Between Suspension Rate Trajectories, Perceived School Safety**

	Declined	Stable	Increased
Declined	-	*	*
Stable		-	NS
Increased			-

\*  $p < .05$ , NS = non-significant

## Bullying and Harassment

TABLE D12.

### Multilevel Regression Model Predicting Bullying and Harassment in CHKS Schools

Suspension Rate Trajectory	B	SE	t	p-value
Declined	-1.07	0.03	-34.29	0.00
Stable	-1.16	0.04	-29.41	0.00
Increased	-1.06	0.06	-16.95	0.00
Constant	72.25	0.12	604.28	0.00

Note: Intra-class correlation = 0.01;  $F(984, 962665) = 10.87$ ;  $p < .01$

TABLE D13.

### Statistical Significance of Differences Between Suspension Rate Trajectories, Bullying and Harassment

	Declined	Stable	Increased
Declined	-	NS	NS
Stable		-	NS
Increased			-

\*  $p < .05$ , NS = non-significant

## Victimization

**TABLE D14.**  
**Multilevel Regression Model Predicting Victimization in CHKS Schools**

Suspension Rate Trajectory	B	SE	t	p-value
Declined	-1.04	0.03	-32.71	0.00
Stable	-1.11	0.04	-27.66	0.00
Increased	-0.99	0.06	-15.62	0.00
Constant	69.12	0.12	566.13	0.00

Note: Intra-class correlation = 0.01;  $F(984, 961557) = 10.91, p < .01$

**TABLE D15.**  
**Statistical Significance of Differences Between Suspension Rate Trajectories, Victimization**

	Declined	Stable	Increased
Declined	-	NS	NS
Stable		-	NS
Increased			-

\*  $p < .05$ ; NS = non-significant

## Violence Perpetration

TABLE D16.  
**Multilevel Regression Model Predicting Violence Perpetration in CHKS Schools**

Suspension Rate Trajectory	B	SE	t	p-value
Declined	-1.97	0.03	-63.64	0.00
Stable	-1.42	0.04	-36.46	0.00
Increased	-1.67	0.06	-27.08	0.00
Constant	41.36	0.12	349.59	0.00

Note: Intra-class correlation = 0.03;  $F(984, 960349) = 27.33$ ;  $p < .01$

TABLE D17.  
**Statistical Significance of Differences Between Suspension Rate Trajectories, Violence Perpetration**

	Declined	Stable	Increased
Declined	-	*	*
Stable		-	*
Increased			-

\*  $p < .05$ ; NS = non-significant