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Promoting Protective Factors in California's Afterschool Programs

Greg Austin, Staci Wendt, & Lucyna Klinicka

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Introduction and Background

Public interest in, and funding for, youth programs during non-school hours increased dramatically during the 1990s (National Research Council 2002). This interest was fueled largely by the need to provide youth with additional supports related to three concerns:

- Declining student performance on standardized tests and rising school dropout rates;
- Youth safety and supervision with increasing numbers of mothers working outside the home; and
- The rise in youth involvement in risk behaviors such as delinquency, violence, and substance abuse, especially in the hours between 3 p.m. and 6 p.m.[1]

Thus, early efforts to expand afterschool programs had a strong educational, safety, and prevention focus (Afterschool Alliance 2014; Mahoney et al., 2009; Newman et al., 2000; Richardson et al., 1989). They were also influenced by the growing body of research on factors that promoted positive youth development. Prevention researchers in the 1980s began identifying risk factors that increased the probability of youth involvement in a wide range of problems and negative outcomes. Another group of researchers (e.g., Emmy Werner, Norman Garmezy, Michael Rutter) were identifying "protective factors," particularly environmental conditions and adult supports, that appeared to protect against or mitigate the presence of these risk factors—such as poverty, adverse childhood experiences, and other traumas—and increased the likelihood of resilience and successful outcomes even among youth in high-risk environments (Benard, 2004; Benson et al., 1998; Scales & Leffert, 1999; Nagaoka et al., 2015; Hawkins et al., 1992; Masten, 2001; Garmezy & Rutter, 1983; Rutter, 1985; Rutter, 1987; Werner & Smith, 1982; Werner & Smith, 1992; Werner & Smith, 2001). These protective factors even seemed more powerful than risk factors, predicting positive outcomes in anywhere from 50 to 80 percent of a high-risk population, whereas risk factors are predictive of negative outcomes for only about 20 to 49 percent (Benard, 2004). This research helped give rise to a youth development movement focused on promoting these protective factors and which saw afterschool programs as an important venue for accomplishing this goal.

Adolescence is "the second most critical period of development" after early childhood (Cicchetti, 2016), and California has the largest and highest-rated expanded learning infrastructure in the nation, with state-funded programs in over 1,100 middle school and 300 high school sites (Williams, 2020). The state has further been a leader in calling for programs to implement youth development/protective factor

[1] This remains the situation today, as reported by the Council for a Strong America (2019). The hours of 2 to 6 are still the "prime time for juvenile crime" and for acts perpetrated upon juveniles. The report notes that in California about 35 percent of all juvenile crime on school days occurs during the hours following the last school bell.

strategies. In this study, we examine the extent to which secondary students participating in afterschool programs that receive funding grants from the California Department of Education (CDE) experience higher levels of school-based protective factors and supports than do their nonparticipating peers in the same schools, drawing on data from the California Healthy Kids Survey (CHKS).[2] As such, this study sheds light on how afterschool programs may positively impact the experience of participating youth related to the school itself.

A Protective Factors Framework

Research on protective factors and resilience emphasizes the importance of three broad areas of environmental support. As summarized by Benard (2004), these are:

- **Caring Relationships.** Arguably caring relationships between youth and adults are the most powerful of developmental support. 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**. Youth need to experience high-expectation messages that convey adults believe the youth can and will succeed, that they won't give up on them but will encourage and help them to do their best, nurturing each youth's unique strengths and pathways to success.
- **Meaningful opportunities for participation and contribution**. Youth need to be engaged in activities and decision-making opportunities that contribute to their sense of autonomy and control, give them voice, increase their involvement in school/community, and engage their interests.

When these three protective factors are present in any environment—families, schools, communities, or afterschool programs—they work together in a dynamic process to create a climate that is optimal for fostering resilience and positive youth development. They are essential to meeting the basic developmental needs felt by all people of all ages for safety, love, belonging, respect, a sense of mastery, personal power, and meaning in life (autonomy, belonging, and competence). When these needs are met, the negative effects of trauma, adversity, and/or other stressors are mitigated, and people are more likely to

- Feel connected to school, society, and/or family (social bonding);
- Develop the social-emotional competencies and other personal assets (strengths)—commonly referred to as Social and Emotional Learning (SEL)—that have been linked to successful

[2] In this report, references to state- or CDE-funded programs include both CDE grantees that receive funding directly from the state through the After School Education and Safety (ASES) program and that receive CDE-administered grants funded by the Federal 21st Community Learning Center (21st CCLC) program. Half of California's 21st CCLC funds are reserved for the After School Safety and Enrichment for Teens (ASSETs) program, the only public funding source available for high school afterschool programs (see Williams, 2020).

learning and development, such as self-awareness, empathy, problem solving, and emotional regulation skills[3]; and, as a result,

- Avoid engagement in risk behaviors that are barriers to learning and healthy development and experience positive academic, personal, and health outcomes.

Although universally referred to as “protective” factors, in the sense that they mitigate against existing risks, they are also “promotive” factors, in that they enhance an individual’s social-emotional learning and well-being, and the likelihood of positive outcomes, regardless of whether or not an individual has been exposed to adversity (Berry et al., 2019).

Youth Development and Prevention

Early prevention efforts, largely school-based, focused on “fixing” problem youth (a “deficit” model). The protective factors research more holistically shifted the focus to what adults were doing to address the needs of all youth and to build or nurture their strengths and assets to counter any risk factors they faced, giving birth to the positive youth development movement (Lerner et al., 2009). This movement emphasized that instead of viewing youth as “problems,” we need to see them as resources to be developed; and that it was more important to foster supports and conditions that promoted positive youth development than focus efforts just on preventing or diminishing risky behaviors. This paradigm shift recognized that preventing problem behaviors is not all that is needed to prepare youth for their future, as captured by the phrase “problem free is not fully prepared” (Pittman, 1991). A common mantra that emerged is that adults in all systems must focus on addressing the needs of the whole child—physical, psychological, social, and cognitive.

The protective factors approach further addressed two practical problems that were apparent in existing prevention efforts. First, programs targeting different problems were multiplying but finding that they were “treating” the same youth. Second, the deficit model and “traditional” prevention programs were producing limited long-term success. Focusing on promoting environmental and other protective factors rather than targeting specific problems offered the likelihood of more efficiently, cost-effectively, and successfully impacting numerous educational, behavioral, health, and social-emotional problems (Afterschool Alliance, 2003; Brooks-Gunn & Roth, 2014; Catalano et al., 2002, 2004; Lerner et al., 2006, Lerner, Lerner, von Eye, et al., 2011; Pittman & Irby 1996; Roth & Brooks-Gunn, 2003).

Youth Development, Schools, and Learning

In recent years, there has also been a profound growth in recognition within the educational system of the importance of schools fostering safe, supportive, and caring school climates and building the social-emotional competency of students—that is, intentionally working to foster protective factors—as a strategy to enhance both academic achievement and healthy development.

[3] On the close alignment between youth development promotion and social-emotional learning (see Elias et al., 2015).

A consensus has emerged within educational research and the science of learning and development (SoLD) that both processes (learning and development) "are shaped by interactions among the environmental factors, relationships, and learning opportunities youth experience, both in and out of school, along with physical, psychological, cognitive, social, and emotional processes that influence one another—both biologically and functionally—as they enable or undermine learning." The central implication for education is that learning is supported when schools holistically support the whole child's social, emotional, and cognitive development, and their overall health and well-being. Increasingly, schools are focusing on fostering positive school climates and conditions that build strong developmentally supportive relationships and a sense of safety, equity, respect and connectedness (social bonding); on incorporating SEL strategies; and on personalizing opportunities and responses that address each individual child's needs, interests, and culture. In short, it is not only possible but necessary for schools to support both productive learning and development for all youth that enable all children to overcome any existing adversities, and find positive pathways to adulthood (American Institutes for Research, 2019; Aspen Institute National Commission, 2018; Cantor et al., 2018; Darling-Hammond et al., 2019; Davis 2019; Osher et al., 2020).

Afterschool Programs as Youth Development Systems

As schools are the most effective venue for reaching all youth, these efforts should be applauded and encouraged. But today's school system still has its limitations in sufficiently meeting the needs of all students for developmental support. To the extent that fostering protective factors occurs in schools, it is seen through the lens of education's primary focus on instruction and academic achievement, rather than an end in itself, and the set curricula and often rigid schedule of schools is often not conducive to implementing youth development strategies. Staff training in implementing youth development strategies also is still new and limited.

Even when schools embrace a protective factors approach, the school day itself is not sufficient to provide the opportunities, experiences, and supports youth need to develop a sense of belonging, resiliency attributes, and personal strengths that lead to positive outcomes. While it is true that one caring adult can make all the difference in the world in the life of a child, a major lesson from research is that both risk and protective factors are additive. The more youth experience protective factors across multiple settings, the greater likelihood that they will have an effect (Benard, 2004). Providing additional developmental supports through afterschool programs is essential for ensuring that youth thrive and

succeed, especially youth in high poverty, marginalized communities lacking in these supports and protective factors.

Moreover, in many respects afterschool programs are a more effective venue for fostering protective factors than the school system. They have a long history of making youth development and addressing the needs of the whole child a central mission.[4] Early advocates emphasized that afterschool programs were an important opportunity to provide the developmental supports and protective factors that help youth succeed and many program providers have embraced this mission. They have long emphasized the importance of promoting positive adult relationships, youth engagement, and other environmental supports, as well as working directly to foster social-emotional learning and other internal assets that are protective factors in themselves (Afterschool Alliance, 2019; American Institutes for Research, 2019; McDowell Group, 2018). Many of their features especially facilitate achieving these goals:

- Afterschool programs are a more neutral, less structured environment than the school and have more flexibility to address the needs and circumstances facing youth, particularly those youth who struggle to succeed academically.
- They provide a more neutral and stable environment conducive for youth and adults to establish positive relationships, arguably the most important protective factor (Benard, 2004; Jones & Deutsch, 2011; Osher et al., 2020; Rhodes 2004, Sieving et al. 2017). This is especially true for older adolescents, as teachers regularly change in secondary schools.
- They are focused on providing youth with an opportunity to engage in a variety of activities that are meaningful to youth and through which they can build, and be known for, individual strengths other than academic and to make positive connections with peers (Barber et al. 2014, Eccles et al. 2003, Watts, Witt, & King 2008).[5]
- They provide greater autonomy to students and promote youth choice, youth voice, and teamwork, which helps foster self-awareness and self-confidence.
- They provide not only more opportunities for youth but greater time for them to practice and acquire internal assets such as problem solving, creative thinking, and decision-making.[6]
- They are a resource for students and their families to help them connect to other appropriate systems of support.

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[4] Carnegie Council on Adolescent Development (1992), National Research Council (2002), Afterschool Alliance (2003), American Youth Policy Forum (2006), Deutsch et al. (2017); Hall et al. (2003), Halpern (2002), Mahoney et al. (2009, 2010), McDowell Group (2018), Smith (2007), and Smith et al. (2017).

[5] Similar observations have been made about the differences in promoting social and emotional learning between the school and afterschool environments (Blyth, Olson, & Walker, 2015; Blyth & Flaten, 2016; Jones et al., 2017). On the value of afterschool programs in fostering social emotional learning (see also Afterschool Alliance, 2018; Devaney, 2015; Devaney & Moroney, 2015; Durlak & Weissberg 2007, 2013; Durlak et al., 2010; Hurd & Deutsch, 2017; Moroney & Devaney, 2017).

[6] As the Carnegie Council on Adolescent Development (1992) observed, afterschool programs "are effective in meeting the developmental needs of youth precisely because they can quickly shift, modify, and transform their way of working to better fit the changing circumstances, strengths, and needs of youth."

Surveys that have examined public attitudes toward afterschool programs consistently list these factors among the most important perceived benefits, especially within high-poverty communities (e.g., Afterschool Alliance, 2014 and 2016). As the Aspen Institute's National Commission on Social, Emotional, and Academic Development (2018) recommends, every young person needs access to high-quality afterschool programs that work in partnership with schools and community-based organizations to address the needs of the whole child and give them the social, emotional, and cognitive skills necessary to succeed in school and beyond.

Research Supports the Approach

Adding to the momentum to incorporate protective factors and youth development approaches into afterschool programs was research documenting that the programs that have the most positive outcomes are those that not only provide a safe, supervised place for students beyond the end of the school day, but also take a comprehensive, developmental "expanded learning" approach to addressing the needs of the whole child. The best-practice literature emphasizes that successful afterschool programs intentionally aim to enhance the learning that occurs in the classroom and to provide youth with the developmental supports, opportunities, and skills that are central to success in school, career, and life but are often not sufficiently experienced during the school day. This includes protective factors such as enhancing adult relationships and a sense of belonging or connectedness, competency (including social-emotional learning), and autonomy rooted in personal empowerment (youth voice).[7] As discussed further below, these program features are essential to the *Quality Standards for Expanded Learning in California*, identified by an expert panel (California Department of Education & California Afterschool Network, 2014). In the words of the *State of the State of Expanded Learning in California, 2017-2018* (Hay, 2019), "Expanded Learning creates the conditions necessary for social-emotional learning and development."[8]

For example, Vandell (2013) identifies the following characteristics of a quality program that align with the protective factor research and contribute to positive youth development:

- Foster positive relationships between program participants and staff;
- Build positive relationships among program participants;
- Offer a blend of academic and developmental skill-building activities;
- Program high levels of student engagement;
- Maintain an orientation toward mastery of knowledge and skills; and
- Provide appropriate levels of structure as well as opportunities for autonomy and choice.

[7] See, for example, Anderson-Butcher & Fink (2005), Berry et al. (2019), Rhodes (2004), and Jones & Deutsch (2011).

[8] See also Science of Learning and Development Alliance (2019).

Many studies and evaluations have found positive developmental outcomes from regular participation in high-quality afterschool programs.[9] Research would also suggest that some of the positive findings for afterschool programs in reducing risk behaviors such as substance abuse may be related to their implementation of protective factors strategies, although the evidence is currently mixed (Bonell et al., 2016; Ciocanel et al., 2017; Kremer et al., 2015; McDowell Group, 2018; Schwartz et al., 2010).

This Study

Although afterschool programs have been found to foster positive developmental outcomes, little attention has been directed at their role in enhancing specific environmental protective factors. Both research and theory would suggest that afterschool programs incorporating youth development strategies—especially those housed on the school site and employing school staff—can positively impact a youth's sense of school support, safety, and connectedness, leading to more positive school behaviors, academic motivation, and other positive outcomes (Eccles et al., 2003; McNeely et al., 2002; Thompson et al., 2006; Watts et al., 2008).

For example, Anderson-Butcher (2010) found evidence of higher school connectedness from participation in elementary afterschool programs in low-achieving schools in high-poverty communities. The programs were characterized by a comprehensive approach to promoting learning and positive youth development. She argues that several features of the programs beyond the basic function of ensuring safety and adult supervision doubled to help promote this, including their fostering youth protective factors, engaging parents, and being located on school campus and employing teachers as staff.

In this study, drawing on data from the California Healthy Kids Survey (CHKS), we examine the extent to which afterschool programs in schools that have received program funding from CDE's Expanded Learning Division (EXLD) may be contributing to fostering more school-based protective factors among its participants compared to their peers who were not program participants. Do these programs have a cross-over effect on student perceptions of, or experiences with, protective factors in the school environment?

CDE's Afterschool Program

This question is particularly of interest in regard to CDE's afterschool program because youth development promotion is central to its strategic plan and California has the largest state-funded

[9] For example, see Durlak et al. (2010), Durlak & Weissberg (2007, 2013), McDowell Group (2018), Kremer et al. (2015), McCombs et al. (2017), Mahoney et al. (2010), Naftzger and Sniegowski (2018), and Vandell et al. (2007).

expanded learning program in the nation.[10] CDE-funded programs are charged with providing both academic and developmental enrichment and with implementing 12 Quality Standards (California Department of Education 2013, 2014). Six of these standards are youth-development focused:

1. **Safe and supportive environment**. The program provides a safe and nurturing (caring) environment that supports the developmental, social-emotional and physical needs of all students.[11]
2. **Active and engaged learning**. Program design and activities reflect active, meaningful and engaging learning methods that promote collaboration and expand student horizons.
3. **Skill building** (High Expectations). The program maintains high expectations for all students, intentionally links program goals and curricula with 21st-century skills, and provides activities to help students achieve mastery.
4. **Youth voice and leadership** (Active Participation). The program provides and supports intentional opportunities for students to play a meaningful role in program design, and implementation, and provides ongoing access to authentic leadership roles.
5. **Healthy choices and behaviors**. The program promotes student well-being through opportunities to learn about and practice balanced nutrition, physical activity, and other healthy choices in an environment that supports a healthy lifestyle.
6. **Diversity, Access and Equity**. The program creates an environment in which students experience values that embrace diversity and equity.

In addition, Quality Standard #9 calls for programs to intentionally build and support collaborative relationships among internal and external stakeholders, including families, schools, and community, to achieve these program goals.

Also reflective of CDE's commitment to youth development as a key component of expanded learning, in 2007 the department developed and implemented a training program (You Matter!) for all of its grantees to build regional capacity for line staff to implement high quality youth development strategies and better serve the full range of developmental needs of the youth at their sites - social, emotional, physical, and academic.

[10] California currently funds 4500 sites; of those, over 1,000 serve middle schools and close to 400 serve high schools.

[11] See also the California Department of Education's (2018) guidelines for social emotional learning.

Methods

The current study provides a rigorous approach to understanding the impact of afterschool participation on protective factors. Unlike other cross-sectional studies, the current study utilizes a quasi-experimental design to identify a comparison group of students who are demographically similar to afterschool participants, but do not participate in afterschool programs. The development of a comparison group increases our confidence that any observed differences in protective factors are due to afterschool participation and not demographic or academic differences (Shadish, Cook, & Campbell, 2002).

Measures

The data used in this study were derived from the California Department of Education's (CDE) California Healthy Kids Survey (CHKS), developed by WestEd in 1998 to enable local school districts and the state overall to assess and monitor (1) school climate, safety, and developmental supports provided to students and (2) pupil engagement, experiences related to bullying and victimization, involvement in risk behaviors, mental health and overall well-being. The CHKS incorporates a youth-development, protective-factors framework and is the largest statewide survey of its kind in the nation. Over seventy percent of school districts in the state currently administer it, the majority every two years. For the purpose of this report, we investigated data related to protective factors and afterschool participation in grades 7, 9, and 11 collected in the 2016-17 and 2017-18 school years.

Student characteristics. Demographic characteristics were captured using the CHKS. The demographic characteristics included gender (0 = Male, 1 = Female), ethnicity (0 = Not Hispanic/Latino, 1 = Hispanic/Latino), student grades (0 = As to Mostly Cs, 1 = Cs and Ds to Mostly Fs), and reduced-price lunch (0 = not free or reduced lunch, 1 = free or reduced lunch).

Afterschool participation. Afterschool participation was captured via the CHKS. One item on the CHKS asks students to report how many days a week they participate in their schools' after school programs (responses are 0 days, 1-2 days, 3-5 days). For this report, we identified and compared results for students who did not report participating in their school's afterschool programs (i.e., responded 0 days per week) and students who participated regularly, defined as attending 3-5 days per week, within schools that received program funding from the CDE Expanded Learning Division (EXLD).

We cannot be certain that all the students in these schools who reported attending afterschool were participating in the CDE-funded programs versus another program. Students could even be participating in several programs. However, the question does specify attending "your schools' after school program" and it is very likely that it would be the CDE program, particularly for a student who participated frequently.

Protective factors measures. To measure protective factors, we utilized six school-based composite measures of the CHKS. The measures included the three developmental supports of caring adult relationships, high expectations, and opportunities for meaningful participation as experienced in school as well as school connectedness, academic motivation, and parental involvement (high school only). Table 1 provides a list of all the measures and describes how each measure is operationalized.

Table 1

Selected School Climate Protective Factor Measures

Construct	CHKS Survey Measure and Operationalization
Caring Adult Relationships (in school)	(Three-item scale; level statements perceived as true) 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. % of students responding "*pretty much true*" or "*very much true*" to items in scale
High Expectations (in school)	(Three-item scale level statements perceived as true) 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. % of students responding *"pretty much true"* or *"very much true"* to items in scale
Opportunities for Meaningful Participation (in school)	(Three-item scale; level statements perceived as true) At school…I do interesting activities; …I help decide things like class activities; …I do things that make a difference. % of students responding *"pretty much true"* or *"very much true"* to items in scale
Parental Involvement (High School Only)	(Three-item scale; level of agreement) Teachers at this school communicate with parents about what students re expected to learn in class; Parents feel welcome to participate at this school; and School staff take parent concerns seriously. % of students responding "agree" or "strongly agree" to all items in scale
School Connectedness	(Five-item scale; level of agreement) 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. % of students responding "*agree*" or "*strongly agree*" to all items in scale
Academic Motivation	(Four-item scale; level of agreement) I try hard to make sure that I am good at my schoolwork; I try hard at school because I am interested in my work; I work hard to try to understand new things at school; and I am always trying to do better in my schoolwork. % of students responding "agree" or "strongly agree" to all items in scale

Analytic Strategy

Propensity score matching. We used a quasi-experimental technique called propensity score matching to identify a group of comparison students who were demographically similar to the participants. The purpose of propensity score matching is to attempt to achieve two groups, the participant and non-participant groups, who are essentially equal on all things except for program participation. This technique is commonly used when randomization is not possible. Students were matched on the following characteristics: student sex (0 = Male, 1 = Female); student ethnicity (0 = Not Hispanic/Latino; 1 = Hispanic/Latino); language spoken at home (0 = English spoken at home; 1 = non-English spoken at home); student grades (0 = As to Mostly Cs; 1 = Cs and Ds to Mostly Fs); and student reported free or reduced lunch participation (0 = not Free or Reduced Lunch; 1 = Free or Reduced Lunch). We utilized psmatch2 in StataSE v.13 to conduct the propensity score matching and analyses. We conducted baseline equivalence testing for all matched variables. All effect sizes were less than d = .05.

Data Analysis

We utilized a series of multiple linear regressions to conduct the outcome analyses. Covariates for each model included student sex (0 = Male, 1 = Female), student ethnicity (Asian, African American, Latino, Other, White), and student grades (0 = As to Mostly Cs; 1 = Cs and Ds to Mostly Fs). Outcome models were run separately for grade 7 and for grades 9/11. A variable indicating afterschool participation (0 = none, 1 = 3-5 days) was included to determine the impact of afterschool participation on each outcome.

Results

The sample included a total of 38,928 7th graders (19,464 afterschool participants; 19,464 non-participants) and 21,154 9th and 11th graders (10,577 afterschool participants; 10,577 non-participants).

Table 2 includes the student characteristics for the sample.

Table 2

Student Characteristics

	Grade 7				Grades 9 and 11			
	Afterschool Participants		Non-Participants		Afterschool Participants		Non-Participants	
	M	SD	M	SD	M	SD	M	SD
Percent Female	0.49	0.50	0.49	0.50	0.43	0.50	0.43	0.50
Percent Asian	0.09	0.29	0.09	0.28	0.13	0.34	0.13	0.34
Percent African American	0.06	0.23	0.04	0.19	0.06	0.25	0.05	0.21
Percent Latino	0.61	0.49	0.61	0.49	0.58	0.50	0.58	0.50
Percent White	0.09	0.28	0.12	0.32	0.11	0.32	0.14	0.35
Percent Other	0.15	0.36	0.14	0.35	0.11	0.31	0.10	0.30
Percent Low Grades	0.13	0.33	0.13	0.33	0.11	0.31	0.11	0.31

The results compare responses to the California Healthy Kids Survey between students in CDE EXLD-funded schools who regularly attended afterschool programs (3-5 days per week) and students who did not attend the afterschool programs. All results reported were statistically significant ($p < 0.01$).

Students who attended the afterschool programs reported significantly higher levels of meaningful participation in school compared to students who did not attend the afterschool programs. The positive effect of afterschool attendance on meaningful participation was true for both school levels (i.e., students in grades 7 and 9/ 11). There was a greater difference in ratings of meaningful participation between afterschool participants and non-participants among high school students as compared to the younger students. The effect size was larger for high school students ($d = 0.52$), than for seventh graders ($d = 0.26$).

Participants in afterschool programs at both school levels also reported significantly greater levels of school connectedness (e.g., *I feel close to people at this school*), academic motivation (e.g., *I work hard to try to understand new things at school),* caring adult relationships (e.g., *At my school, there is a teacher or some other adult who really cares about me*) and high expectations (e.g., *At my school, there is a teacher or some other adult who believes that I will be a success*), as compared to non-participants. The effect size was largest for high school students on measures of school connectedness ($d = 0.18$), caring adult relationships ($d = 0.19$), and high expectations ($d = 0.18$), indicating meaningful differences between participants and non-participants.

Table 3 includes each outcome and the related findings.

Table 3

Afterschool participation predicting protective factors

	Non-Participants			Afterschool Program Participants			Adj. Mean Diff.	*p*	d
	n	M	SE	n	M	SE			
Grade 7									
School connectedness	19,458	3.66	0.01	19,458	3.17	0.01	0.05	0.00	0.07
Academic motivation	19,458	4.06	0.01	19,458	4.10	0.01	0.04	0.00	0.05
Caring adult relationships	19,458	2.78	0.01	19,458	2.85	0.01	0.07	0.00	0.09
High expectations	19,458	3.13	0.01	19,458	3.19	0.01	0.05	0.00	0.07
Meaningful participation	19,458	2.11	0.01	19,458	2.31	0.01	0.21	0.00	0.26
Grades 9/11									
School connectedness	10,575	3.48	0.01	10,575	3.62	0.02	0.14	0.00	0.18
Academic motivation	10,575	3.90	0.01	10,575	4.00	0.01	0.10	0.00	0.12
Caring adult relationships	10,575	2.70	0.01	10,575	2.85	0.01	0.16	0.00	0.19
High expectations	10,575	2.94	0.01	10,575	3.08	0.01	0.14	0.00	0.18
Meaningful participation	10,575	1.97	0.01	10,575	2.39	0.02	0.42	0.00	0.52
Parental involvement in school	10,575	3.32	0.02	10,575	3.40	0.02	0.08	0.00	0.09
School perceived as safe or very safe*	10,575	0.56	0.01	10,575	0.59	0.01	0.03	0.00	1.12

Note. "Adj. Mean Diff." is the Adjusted Mean Difference. All findings are statistically significant at $p < .001$. School perceived as safe or very safe is a dichotomous outcome and is reported as an odds ratio.

Discussion

The results build on previous studies by identifying a comparison group that was demographically and academically similar to participants in CDE-supported afterschool programs within the same schools. Both in middle and high schools, afterschool participants reported significantly more positive results than nonparticipants from experiencing protective factors in their schools. This is meaningful because research links the experience of protective factors to a wide range of positive academic, social-emotional, behavioral, health and other outcomes.

Among the developmental supports, the greatest difference was for opportunities for meaningful participation. This finding is not surprising given that major goals of many afterschool programs include providing engaging activities and giving students voice. This strong effect is also especially noteworthy,

as low levels of meaningful participation has been a consistent finding in the CHKS. On the 2015-17 Biennial State CHKS, only 19% in 7th and 15% in 9th and 11th grades were categorized as high in these opportunities (Austin et al. 2018). Although the group differences for caring adult relationships and high expectations were less than half as much as for meaningful participation, the findings were still significant, especially among high school students.

Consistent with the youth development framework, there were also significant group differences for school connectedness, and, to a lesser extent, academic motivation. At both school levels, the results for school connectedness are very similar to those for caring adult relationships and high expectations. This is not unexpected, as the CHKS School Connectedness scale, derived from the National Longitudinal Study of Adolescent Health (AddHealth), has items assessing relationships (as well as safety), and social bonding is one of the outcomes from meeting youth developmental needs. School connectedness is itself an important protective factor. AddHealth researchers have shown that youth who felt “connected” to either their parents or school were likely to be healthier, do better 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 (McNeely et al., 2002; Resnick et al., 1997).

Afterschool-participating high school students also reported significantly higher levels of school efforts to foster parental involvement than did nonparticipants, although the group difference was the smallest of all indicators.

The Cross-Over Effect

These results are consistent with prior research and hypotheses on how afterschool programs can help foster school-based protective factors. Several features of the state program might contribute to these positive results. As noted, youth development promotion is central to CDE’s strategic plan for expanded learning and its program requirements, including implementation of 12 Quality Standards (California Department of Education 2013, 2014). These Quality Standards charge programs to create safe and supportive environments that help meet the needs of the whole child, engage them in active learning, build skills, gives voice to students, fosters leadership, promotes student well-being, and builds partnerships with the school, family, and community to achieve these goals.

Thus, the CDE programs are charged with implementing many of the strategies identified by Anderson-Butcher (2010) and others that can contribute to school connectedness and other protective factors in the school context. By fostering safety, positive adult relationships, high expectations, and meaningful participation within the program; by providing assistance with schoolwork and building skills that help students perform better; by contributing to an overall sense of well-being among youth, California’s afterschool programs may be helping to foster a better sense of safety, developmental support, and connectedness within school, and, overall, a more positive climate and conditions for learning. Standards 2 and 4—active/engaged learning and youth voice/leadership—may especially play a role in fostering the higher sense of meaningful participation in the school we found in this study. Building partnerships with the school, family, and community, which is also a specific requirement of CDE grantees, may also carry over into creating more positive school climates and parental

involvement—or at least participant perceptions of it—helping to foster more positive attitudes, and connectedness toward the school among students. California's programs also have one other feature that Anderson-Butcher (2010) identifies as helping promote school connectedness. CDE-grantee programs are almost entirely school-based, which fosters a link in the minds of participants between positive experiences in the program and the school.

Implications for High School Programs

Across the indicators, the differences between participants and nonparticipants were notably greater among students in high school than middle school. As CHKS data consistently shows, there occurs a precipitous drop between 7th and 9th grades, then again in 11th grade, in the percentages of students who report experiencing the three developmental supports in school, perceive the school as safe, feel connected to the school, and are academically motivated (Austin et al., 2018). Thus, the protective supports and opportunities provided by afterschool programs may have a greater effect on high school students, where there are larger drops in protective factors, than for 7th graders.

California was the first state to begin funding afterschool programs for high school students, but there are still far fewer high school programs (317) than programs for elementary and middle school students (4,200). These findings support their value and argue for their expansion, especially in helping fulfill students' developmental needs. As the Afterschool Alliance (2019) emphasizes, "these years are a prime time for positive growth, as well as a potential time for recovery from negative childhood experiences."

Supporting Youth Most in Need

These findings are especially promising as CDE's expanded learning program targets, and the study sample consisted of, students in high-poverty, under-served, and under-resourced communities of marginalized population groups (Hay, 2019; Williams, 2020). These students are challenged by multiple risk factors and are in need of concerted efforts to enhance protective factors and close the opportunity and achievement gaps they experience. It has been estimated that, nationally, youth from higher-income families are twice as likely to access enrichment and skill-building opportunities than their peers from lower-income families (Putnam, Fredrick, & Snellman 2012). On the CHKS, Black, American Indian, and Latino students have, in general, consistently reported lower levels than their White and Asian peers on positive school climate indicators such as school safety, connectedness, and three essential developmental supports. Schools that serve mostly Black and Latino students also have lower overall ratings on these school climate indicators than schools that serve mostly White and Asian students, even when adjusting for student socioeconomic status (Austin et al., 2018; Austin et al., 2010; Voight, 2013). The supports these students are experiencing in their afterschool programs may play a critical difference in whether they succeed and thrive.

The Data Gap

Although the findings would suggest a link between the positive results in regard to school indicators and positive experiences in the afterschool programs among California grantees, one large limitation of this study is the lack of data about protective factors promotion within programs. Despite the long history of alignment between the youth development and the afterschool program movements, programs across the nation vary significantly in the degree to which fostering protective factors is a primary goal. In part this is because programs are intended to meet local needs, which vary. Many are primarily focused on providing academic support or extracurricular activities, especially for older youth. Even within programs that have positive youth development as a stated goal, it is often unclear what strategies they are implementing to that end. Even within California, where the Quality Standards charge programs with implementing strategies that foster positive youth development, the extent to which this occurs, and the effectiveness of these efforts, is uncertain.

The lack of information about the scope and nature of protective factors implementation within programs has been a major challenge in evaluating their effectiveness (Bonell et al., 2016; Ciocanel et al., 2017). Equally important is assessing the extent to which student participants are experiencing protective factors, that their developmental needs are being met, and that they feel developmentally supported by, and connected to, their programs. An assessment questioning the experience within the program (e.g., Do participants experience within programs a sense of safety, support, and belonging?; do participants report having opportunities for voice and engagement?; and do participants show improvements in social-emotional competencies and other personal assets?) would further give voice to participants in guiding program improvement decision-making, serving to enhance the protective factor of meaningful participation.

Similarly, we need more information about the knowledge and capacity of adult staff to implement youth development strategies and create the conditions that promote protective factors and to determine their intentional training needs.

Conclusion

These quasi-experimental findings add to the large body of literature documenting the value of afterschool programs in fostering positive youth development and successful youth outcomes by creating environments rich in protective factors, especially for youth in high-poverty, marginalized communities who face multiple risk factors. Afterschool programs are to make the intentional

promotion of youth development and protective factors central to their mission and goals.[12] This recommendation is in line with the Youth Development Work Group of the Aspen Institute's National Commission on Social, Emotional, and Academic Development (2018), which lauded the efforts of states to create quality standards for expanded learning that emphasize the creation of safe, engaging learning settings that support social, emotional, and cognitive skills. This Aspen report specifically calls out the efforts in California to align schools and afterschool programs in advancing youth development and social emotional learning. The findings of the current study support the positive impact that California's extensive system of programs is having among secondary school participants. As there are still considerable unmet program needs within the state (Williams, 2020), this study adds to the evidence for further expanding the system, particularly among high schools, so that more students can experience its benefits.

[12] On fostering protective factors in afterschool programs, see also Berry et al. 2019.

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