CALIFORNIA SCHOOL HEAT EQUITY ACTION AREA #3

Protecting Students from Heat Outdoors

UCLA Luskin Center for Innovation

FACT SHEET

OCTOBER 2023

California has no statewide requirement for mitigating children's exposure to heat on school grounds.

Kids spend time on playgrounds, fields, and courts during some of the hottest times of the day. Outdoor recreation is important for kids' physical and mental health, but schools weren't designed to protect students from dangerous heat. Historical building guidelines have led to single-story, spread-out campuses that provide little shade for outdoor areas. Most play space is hot asphalt — or rubber matting and artificial turf, which get even hotter to the touch than "blacktops." There is limited guidance on how to design schools that are climate-ready and heat-resilient.

Greener, heat-protected school campuses can benefit the wider community. For instance, schools could become Community Resilience Center sites and provide services to mitigate climate risks.

In the sun, a person's heat burden is up to 70 F hotter than in the shade.

Asphalt can get as hot as 145 F to the touch — hot enough to cause 3rd degree burns in 5 seconds.

Artificial turf surfaces are even hotter, reaching nearly 160 F — hot enough to melt cleats!

Researchers found that an elementary school play yard in Pacoima, CA, was the same temperature as a nearby highway.

WHAT CAN THE STATE DO?

Support and facilitate both nature-based and engineered features to reduce heat exposure in schoolyards.

- Enhance guidance and support for schools in disadvantaged communities to leverage existing funding and expand investments in schoolyards that are ready for a hotter climate. Prioritize school bond funding allocation for heat-adapted campus projects.
- Identify ways to increase shade infrastructure on campuses (e.g., trees, canopies, and buildings). The **Department of Education** and the **Division of the State Architect** could implement these strategies.
- Identify how much shade is necessary for students' health and consider requiring sufficient shade on schoolyards with trees, shade sails, and other strategies. Alternatively, provide guidance for schools and districts to decide what constitutes enough shade on a case-by-case basis.
- Study legal and other barriers to transitioning schoolyards from sun-exposed asphalt to shaded or green space.

Policy Action Examples

SB 394 would have included a survey of public school facilities to collect data on shade, schoolyard materials, and more (2023; passed by senate and assembly; vetoed).

AB 1642 would initiate creating a master plan for green schoolyards, establishing guidelines that state agencies would incorporate into their programs and use to advise school districts (2023; pending).

The Luskin Center for Innovation does not endorse any specific legislation. For additional citations and details, refer to our 2023 policy brief, "Protecting Californians with Heat-Resilient Schools." To learn more, visit our heat equity webpage or contact associate director V. Kelly Turner at vkturner@ucla.edu.