Low Canopy on School Campuses

School campuses sit outside this report's scope and main target audience (i.e., local governments), but their canopy gaps are severe enough to warrant a closer look here.

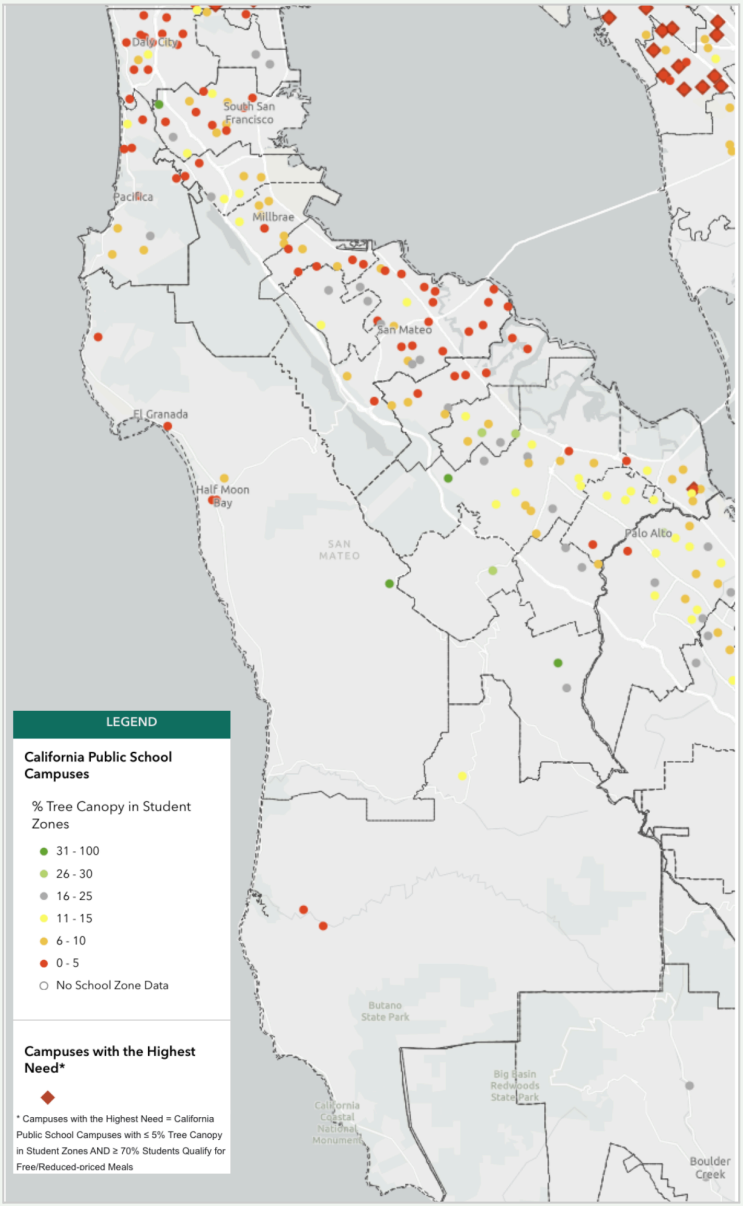
Across California, **urban public schools tend to be among the least shaded places in a community.** A team of researchers from UCLA, UC Davis and UC Berkeley examined tree cover at more than 7,000 urban public schools statewide between 2018 and 2022. Over that four-year period, **85% of the schools lost almost 2% of their tree canopy on average.**

In a separate 2024 study, the nonprofit Green Schoolyards America found that California's public K-12 schoolyards have a median tree cover of just 6.4%. To make the gaps visible campus by campus, Green Schoolyards America worked with GreenInfo Network to build an interactive map of student-zone tree canopy at PreK-12 public schools in California (Fig. A). Red dots on the map mark campuses in the lowest canopy range, from 0 to 5%, while dark green dots mark those above 30%, the long-term target set by the California Schoolyard Forest System. Campuses flagged with a red diamond, labeled "Highest Need," combine the two concerns this report is built around: student-zone canopy at or below 5% together with at least 70% of students qualifying for free or reduced-price meals.

In San Mateo County, of the 153 PreK-12 public schools mapped by Green Schoolyards America, **one was labeled "Highest Need", while 64 (42%) had 5% or less canopy** (Fig. B).

A 2024 policy report from the UCLA Luskin Center for Innovation examined the policies that make greening improvements in schools difficult to implement. Major barriers to school greening include: (1) Limited state-level funding for maintaining school facilities, which limits schools' capacity to build and sustain green infrastructure; (2) Complex, time-intensive construction-approval processes that protect building safety but add administrative and financial burden to greening projects; (3) Narrow definitions of "play" in schools, along with the playgrounds and facilities built to serve those definitions; (4) General funding opportunities structured such that schools find

Figure A - Percent of Tree Canopy in Student Zones of Public School Campuses in San Mateo County

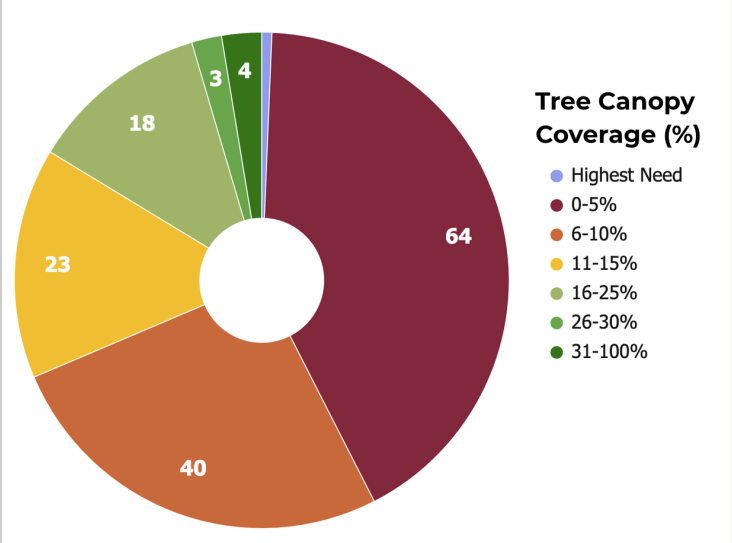


Source: Green Schoolyards America

them hard to secure or not worth pursuing. Nonetheless, the severe lack of shade and the missed health benefits for students warrant action.

Figure B - PreK-12 Public Schools by Tree Canopy Level in San Mateo County

Source: SSMC. Data: Green Schoolyards America.



Note: Highest Need are Public School Campuses with ≤ 5% Tree Canopy and ≥ 70% Students Qualify for Free/Reduced-priced Meals.

The UCLA report's key recommendations to support greening include:

1) **Expand the definition of "play" in schools.** State education officials can recognize natural, unpaved play as legitimate physical activity, rather than treating paved playgrounds as the default.

2) **Clarify that greening and site-planning rules can coexist.** Update the state's school site-planning guidance so districts understand they can green their campuses while still meeting requirements for student space and play areas.

3) **Fund the construction and upkeep of green school grounds**. Direct resources to building and maintaining outdoor learning environments, and to the staff needed to use them, since these fall between the separate funding streams for school operations and school facilities, and facilities have historically received less support.

4) **Bring school districts into stormwater programs.** Include school districts in the stormwater programs that fund depaving, both as landholders assessed for stormwater fees and as entities covered by runoff requirements, since they have generally been excluded from complying with runoff pollution requirements.

5) **Make greening funding guidelines fit school projects**. Encourage grant agencies to write clearer, more flexible proposal guidelines suited to the scope of school-based projects, which would help address assumptions that such projects offer limited benefit and the mismatch between school and program objectives.

See also Green Schoolyards America's Policy Recommendations.

Figure C - An example of Lack of Tree Canopy in Student Zones in a California School

Source: Green Schoolyards America