

Heat and Learning

30 May 2019, 11:15-12:30, bld. 72, room 465

Josh Goodman (Harvard Kennedy)

Abstract: We demonstrate that heat inhibits learning and that school air conditioning may mitigate this effect. Student fixed effects models using 10 million PSAT-retakers show hotter school days in years before the test reduce scores, with extreme heat being particularly damaging.

Weekend and summer temperature has little impact, suggesting heat directly disrupts learning time.

New nationwide, school-level measures of air-conditioning penetration suggest patterns consistent with such infrastructure largely offsetting heat's effects.

Without air-conditioning, a 1°F hotter school year reduces that year's learning by one percent.

Hot school days disproportionately impact minority students, accounting for roughly five percent of the racial achievement gap.