

North Carolina



As climate change produces more extremely hot days across the country, many schools are struggling to cope with overheated classrooms and inadequate cooling systems—if they have them at all. This ongoing increase in the number of hot days during the academic year is forcing schools to install air conditioning or upgrade their equipment to a higher cooling capacity.

Hotter Days, Higher Costs: The Cooling Crisis in America's Classrooms analyzed localized heat trends during the school year from 1970 to 2025 using a widely used and publicly available ensemble of climate models. Our analysis identified a threshold of 32 days above 80 degrees Fahrenheit during the school year as the point at which air conditioning is needed, based on engineering protocols, peer-reviewed studies examining the relationship between heat and learning, and actual practice in school systems across the country. For every school district, we used climate model output to tally the number of days above the 80°F threshold during the school year in 1970 and 2025.

The result: billions of dollars in school cooling costs that are directly attributable to climate change.

THE IMPACT ON NORTH CAROLINA

Climate change is leading to more hot days during the school year. Using 1970 as a baseline, by 2025 this climate-driven warming will require 64 North Carolina schools to install AC at a cost of \$125,834,000. For some schools in North Carolina that required cooling systems before 1970, the increasing number of extremely hot days has already and will continue to overwhelm the cooling capacity of these systems. To upgrade these systems, North Carolina will need to spend \$571,000 in 81 schools by 2025. These costs will impact 105,020 students across 26 school districts in North Carolina.

Once air conditioning is installed and upgraded, schools will have to spend an additional \$28,867,000 every year to operate and maintain these systems, which will impact 1,425,250 students.

THE IMPACT ON THE U.S.

Numerous studies have found that hot temperatures reduce a student's ability to learn.

Nationally, the bill totals over \$40 billion to install or upgrade air conditioning in schools that serve a third of the country's public school students. That's equivalent to the amount that public schools spend each year on all capital improvements, according to the National Center for Education Statistics.

Who's going to pay for this? As it stands, taxpayers have been on the hook. The total bill is enormous, particularly for schools feeling the pinch from increased spending on security and health-safety measures, and burgeoning technology demands. Taxpayers, teachers, and students aren't to blame for rising temperatures. Oil and gas executives have known nearly half a century that their products were causing climate change, and intentionally misled the public about the dangers.

Schoolchildren understand that when you make a mess, it's your responsibility to clean it up. It's time to hold oil and gas executives accountable for the damage they've caused.



5614 Connecticut Ave. NW, #314
Washington, DC 20015
919 307 6637
info@climateintegrity.org

See our full report for more data at coolingcrisis.org

The Cost of Cooling North Carolina's Schools

TOP 10 SCHOOL DISTRICTS, RANKED BY EQUIPMENT COST

RANK	SCHOOL DISTRICT	TOTAL EQUIPMENT	ANNUAL OPERATIONS & MAINTENANCE	# OF STUDENTS IMPACTED	INCREASE IN HEAT DAYS (TOTAL HEAT DAYS)
1	Buncombe County Schools	\$60,061,714	\$1,560,131	24,083	⬆️ 18 /48
2	Haywood County Schools	\$20,352,869	\$394,513	5,288	⬆️ 18 /37
3	Henderson County Schools	\$12,861,626	\$449,959	13,210	⬆️ 21 /54
4	Transylvania County Schools	\$5,393,833	\$122,236	3,307	⬆️ 18 /52
5	Madison County Schools	\$5,146,944	\$121,907	2,272	⬆️ 18 /47
6	Graham County Schools	\$4,392,209	\$78,428	1,169	⬆️ 19 /44
7	Jackson County Schools	\$4,135,354	\$166,133	3,241	⬆️ 25 /49
8	Swain County Schools	\$3,740,290	\$92,037	2,044	⬆️ 21 /53
9	Cherokee Central High School	\$2,584,260	\$62,551	586	⬆️ 18 /43
10	Yancey County Schools	\$2,541,074	\$35,709	726	⬆️ 17 /30

TOP 10 SCHOOL DISTRICTS, RANKED BY OPERATIONS & MAINTENANCE COST

RANK	SCHOOL DISTRICT	TOTAL EQUIPMENT	ANNUAL OPERATIONS & MAINTENANCE	# OF STUDENTS IMPACTED	INCREASE IN HEAT DAYS (TOTAL HEAT DAYS)
1	Wake County Schools	\$0	\$3,172,072	163,109	⬆️ 21 /82
2	Charlotte-Mecklenburg Schools	\$233,431	\$2,957,649	147,687	⬆️ 22 /85
3	Buncombe County Schools	\$60,061,714	\$1,560,131	24,083	⬆️ 17 /48
4	Guilford County Schools	\$0	\$1,385,391	72,933	⬆️ 20 /73
5	Cumberland County Schools	\$31,547	\$987,249	51,792	⬆️ 23 /92
6	Forsyth County Schools	\$0	\$934,483	54,589	⬆️ 18 /74
7	Union County Public Schools	\$0	\$830,051	41,449	⬆️ 23 /89
8	Johnston County Schools	\$0	\$648,462	36,487	⬆️ 23 /89
9	Durham Public Schools	\$0	\$642,298	32,709	⬆️ 20 /89
10	Gaston County Schools	\$32,772	\$619,934	31,273	⬆️ 21 /82

Total equipment is the combined estimated HVAC installation and upgrade costs from 1970–2025. Annual Operation & Maintenance is the estimated costs of operating and maintaining the HVAC systems. Heat days are the number of days 80° or warmer between September 1 and June 15. The increase in heat days was estimated between 1970–2025.

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