K-12 SCHOOLS



In many cities, K-12 schools, in addition to serving students in every community, are among the largest building owners, transportation managers, and employers. Collaboration with schools can help cities decarbonize, build community resilience, and equip the rising generation with the knowledge and skills to advance a sustainable future.

With over 100,000 public schools across the country serving more than 50 million children, the K-12 sector can significantly influence municipal climate action efforts. In the US, schools are one of the largest public sector energy consumers, operate the largest mass transit fleet with 480,000 buses, and serve 7 billion meals annually. Additionally, schools are located in every community and can serve as hubs of community resilience during extreme weather.

Supporting K-12 schools in becoming beacons for climate action offers many benefits. It can reduce annual operations costs, opening up more funding for teaching and learning. It creates sustainable learning environments that improve student health and learning. By modeling climate solutions, it provides firsthand learning opportunities for students. And, it will help cities achieve ambitious climate mitigation and adaptation goals.

By partnering with school boards, local education agencies (LEAs), educators, and students as active participants in the climate action plans — development, framing, and substance — cities can achieve these benefits and inspire children and youth to lead a sustainable, resilient, and equitable future.

FINDINGS

OVERALL 35 out of 35 CAPs included at least one mention of the K-12 sector or children, most commonly in the framing and to highlight the role of schools in providing environmental education

- Development: 23 CAPs noted the involvement of at least one K-12 representative in the development of the plan
- Framing: 35 CAPs noted of the K-12 sector in the framing of their climate action
- Substance: 23 CAPs included at least one substantive partnership between the municipal government and the K-12 sector as being a part of its overall climate action strategy



Development: 23 CAPs included at least one representative from the K-12 sector, with 9 specifically including students in the development of their plans

Out of the 35 cities with CAPs, 23 actively involved K-12 representatives in their development process. These plans, consequently, placed greater emphasis on youth-driven strategies. In contrast, the remaining 12 plans lacked the depth and specificity seen in those with K-12 input, underscoring the significance of their involvement in refining CAP integration.

At least nine cities had primary and secondary school students, some as young as nine-years-old, serving in leadership or advisory roles for their respective CAPs. This community-led, "bottom up" approach enables intergenerational collaboration. Creating pathways that allow K–12 students to have a say in climate strategies provides a constructive way to exercise agency and enact change, setting the stage for a lifetime of civic engagement and leadership.

Framing: 35 CAPs referenced the K-12 sector or children in the framing of the plan, mostly commonly connected to role of environmental education

35 out of 35 CAPs referred to the K-12 sector at least once, although the extent to which the sector was framed as an implementation partner varied significantly. At least five CAPs specifically noted the importance of the K-12 sector to achieving the cities' overall climate goals, typically in the form of environmental education.





In the most recent draft of the city's CAP, Nashville's Sustainable Action Committee has taken steps to include input from the Mayor's Youth Council, a group of local high school student leaders, to help inform the development of its climate action plan. The council members collaborated with subcommittee co-chairs and contributed to planning meetings, asserting their belief in the "youthful ingenuity and optimism of Nashville's students and young adults' to inspire innovative approaches to combat climate change and promote equity."



BRIGHT SPOT: TUCSON, AZ

In Tucson's <u>recently adopted</u>

CAP, the emphasis on education was evident throughout the framing of the plan, reflecting the community's expressed desire to enhance climate awareness. The city committed to partnering with organizations and schools already working on climate resilience and education. Beyond the framing, the city committed to substantively partnering with the sector. The city is developing Tucson-specific climate, sustainability, and conservation curricula across all grades in collaboration with the Environmental Education Exchange and local schools.

Tucsonans are not alone in their desire for climate education to be a part of their city's CAP. San Francisco, Indianapolis, Philadelphia, and Milwaukee also stressed the importance of creating and expanding climate-related learning opportunities for young people in their CAPs.

Substance: 23 CAPs mentioned a substantive partnership between cities and K-12 schools

Out of 35 CAPs, 23 recognized the pivotal role K-12 schools play in advancing climate solutions. These collaborations were generally connected to the following goals:

- Promoting career and technical education (5 cities)
- Expanding composting and recycling efforts (5 cities)
- Electrifying school buses (4 cities)

- Enhancing climate-centric curriculum (3 cities)
- Expanding green schoolyards or garden initiatives (2 cities)

Some cities included innovative and unique approaches: Dallas aimed to monitor 'forever chemicals' in public school water sources. San Francisco sought to swap existing school lunches for lower-emissions options. Both <u>Tucson</u> and <u>New York City</u> envisioned schools as climate resilience hubs for the broader community.



BRIGHT SPOT: ALBUQUERQUE, NM

The City of Albuquerque developed an effective partnership with Albuquerque Public Schools (APS) by incorporating Local and Indigenous Information Systems (LINKS), climate change, and school gardens into APS curricula. These efforts are supported by more than 90 school gardens and utilize lesson plans grounded in Indigenous information systems and traditional ecological knowledge. They are designed by local Master Gardeners and a district-wide garden specialist.



INDIGENOUS KNOWLEDGE SYSTEMS

Indigenous peoples have a deep relationship with the land, water, and other natural elements which are integral to their cultures, knowledge, and livelihoods. These relationships have been developed and taught in Indigenous communities since time immemorial, long before the American public-school system was established. Indigenous Knowledge Systems (IKS) shape Indigenous youth identity and perceptions of the world.

While science and social studies education in the US often includes human-environment interactions, there is an emphasis on empirical data and western science. Rarely do these classes include Indigenous Knowledge Systems, which is a holistic, observational, and systematic way of understanding the environment and its connection to culture and society. IKS has contributed to Indigenous communities leading on mitigating and responding to climate change as well as management of lands in which the majority of the world's remaining biodiversity is found.



BRIGHT SPOT: MILWAUKEE, WI

Born from a partnership between Milwaukee Public Schools, the City of Milwaukee, and the Metropolitan Sewerage District, the Green and Healthy Schoolyard (GHS) Redevelopment Program planned to replace large expanses of heat-trapping asphalt playgrounds that can contribute to urban heat islands with rain gardens and other sustainable infrastructure. Sustainable schoolyards like GHS can help improve student well-being and learning, create direct connections with nature, and reduce community heat and flooding.

Milwaukee's Climate and Equity Plan, formally adopted in January 2023 explicitly referenced the funding opportunities in the <u>Inflation</u> Reduction Act (IRA) of 2022 to support schools in increasing energy efficiency and installing renewable energy.



BREAKING NEWS

In April 2023, Mayor Eric Adams announced the release of PlaNYC — New York's City's updated strategic climate action plan. This climate action plan outlines 10 goals for achieving New York's ambitious climate targets. One goal, to build the Green Economy, listed "launching new climate education and training programs for public schools" as a key initiative, and "integrating climate education in public school classrooms across all subjects and grade levels" and "launching **new Career Connected Learning Programs** for public school students dedicated to green job training and placement" as a subsequent actions.



OPPORTUNITY FOR COLLABORATION

Miami-Dade County, one of the most populous counties in the US, comprises several distinct cities with K-12 public schools governed at the county level. The City of Miami, Miami-Dade County, and Miami-Dade Public Schools all have climate action plans with specific goals and strategies. Creating connections across the plans highlights opportunities to work together toward broader action. For instance, the City of Miami's "Miami Forever Carbon Neutral Plan" acknowledges "As the City of Miami, Miami-Dade County Public Schools, and Miami-Dade County all have large purchasing and political power, the collective influence of these commitments can positively push Miami's economy towards greater sustainability and equity."



Opportunity

Cities have an opportunity to prioritize the inclusion of young people's voices, experiences, and ideas, particularly those from communities most impacted by climate change, in climate action planning. Given their reach and influence, schools have the potential to become beacons for climate action, modeling climate solutions for students, and creating resilience hubs for communities. By recognizing the potential of including K-12 schools and students, cities can more effectively accomplish their climate goals and support the well-being and education of children and youth.

K-12 IN CITY CLIMATE ACTION PLANS	DEVELOPMENT	FRAMING	SUBSTANCE	
New York, New York	V	V	V	
Los Angeles, California	V	✓	✓	
Chicago, Illinois	V	✓	✓	
Houston, Texas		V		
Phoenix, Arizona	V	✓	✓	
Philadelphia, Pennsylvania		✓	✓	
San Antonio, Texas	V	✓		
San Diego, California	V	✓	✓	
Dallas, Texas		V	V	
San Jose, California	V	✓		
Austin, Texas	V	V	✓	
Jacksonville, Florida	No final	No finalized city CAP at the time of the review		
Fort Worth, Texas	No final	No finalized city CAP at the time of the review		
Columbus, Ohio		V		
Indianapolis, Indiana	V	✓	✓	
Charlotte, North Carolina		✓		
San Francisco, California	V	✓	V	
Seattle, Washington		✓	V	
Denver, Colorado	V	✓	V	
Oklahoma City, Oklahoma		✓		
Nashville-Davidson, Tennessee	V	✓	V	
El Paso, Texas	No final	No finalized city CAP at the time of the review		
Washington, District of Columbia	V	∨	✓	
Boston, Massachusetts	V	∨	✓	
Las Vegas, Nevada	V	✓	✓	
Portland, Oregon		∨		
Detroit, Michigan	V	✓		
Louisville/Jefferson County, Kentucky	V	∨	V	
Memphis, Tennessee		∨	V	
Baltimore, Maryland		V	V	
Milwaukee, Wisconsin	V	∨	✓	
Albuquerque, New Mexico	V	∨	✓	
Fresno, California		∨		
Tucson, Arizona	V	✓	✓	
Sacramento, California	V	V		
Mesa, Arizona		✓		
Kansas City, Missouri	∨	✓	✓	
Atlanta, Georgia	✓	✓		
Omaha, Nebraska	No final	No finalized city CAP at the time of the review		
Colorado Springs, Colorado	No final	lized city CAP at the time of th	ne review	