

# ADVANCING EQUITY

Black, Latino, Indigenous, Asian American and Pacific Islander, and other communities of color, low-income communities, people with disabilities, and under-resourced urban and rural communities bear the greatest burdens from negative climate impacts, from greater exposure to pollution to greater vulnerability to extreme weather.<sup>1</sup> Any climate actions or solutions must prioritize, elevate, and engage these communities to advance equity and environmental justice. Given their experiences with the impacts of climate change and environmental injustice, these communities have crucial insight into climate solutions and must be at the helm of climate actions, both in and out of schools.

Students, parents, caregivers, families, and communities are the central stakeholders in the education sector, and research shows their involvement in schools improves students' educational experiences and outcomes.<sup>2</sup> Building relationships with these stakeholder groups and including their perspectives in decision-making processes is necessary for meaningful community engagement.

Our country is just beginning the decarbonization of our economy and society required to address climate change. We are at a critical moment where we can advance policies that help support an equitable and just transition. Centering the experiences and perspectives of Black, Latino, Indigenous, Asian American and Pacific Islander, and other communities of color, low-income communities, and under-resourced urban and rural communities in this transition can help advance a more equitable future.

Advancing equity can be a focus by which policymakers and education leaders guide climate action in schools to help schools mitigate, adapt, and educate to address climate change. To succeed in advancing equity, we must acknowledge the existing inequities in our schools and communities currently affecting students' ability to learn. Without equity-focused efforts centering students and communities, these existing inequities will only worsen as climate change worsens.



## WHAT WE'VE HEARD

During a listening session, youth activist Jerome Foster II emphasized the critical role that youth can play in advancing climate action. He shared that, increasingly, “young people are included in curriculum development, included in how we allocate funds to frontline communities, and a plethora of other initiatives.” Jerome also spoke about how understanding civics can help youth take the lead on climate advocacy at the federal, state, and local level.



Photo by Allison Shelley for American Education: Images of Teachers and Students in Action.

# Health Impacts, Climate Change, and Equity

High heat — one of the most widespread climate impacts — has disparate effects on communities of color. Due to a history of redlining,\* communities of color are more likely to live near heat islands, which are areas that have an average temperature that is higher than the surrounding city or town.<sup>3</sup> Additionally, schools serving more low-income students have heat island differentials twice as large as those serving non-low-income students.<sup>4</sup>

Communities of color and Indigenous communities face disproportionately higher rates of air pollution and other environmental hazards, as well as associated health problems.<sup>5</sup> In fact, recent research identified that despite being less responsible for pollution, Black and Latino Americans bear a larger share of the “pollution burden.”<sup>6</sup> Children of color and Indigenous children are disproportionately exposed to air pollution and have higher rates of childhood asthma.<sup>7</sup> Asthma rates are particularly high among Black children, a rate of 13.5% compared to 6.4% for white children.<sup>8</sup> Children and youth with asthma, diabetes, and other chronic conditions are at greater risk of heat-related illnesses.<sup>9</sup> Increased exposure to heat and pollution and increased prevalence of asthma impact students’ ability to attend, learn, and succeed in school.<sup>10</sup>

Climate impacts including flooding and other extreme weather are also threatening water quality, which in turn creates greater health risks.<sup>11</sup> Communities of color and communities with high levels of non-English speakers are more likely to have unsafe drinking water.<sup>12</sup> Lead in particular is one of the most significant environmental hazards for children. Yet, research has shown far too many schools have elevated levels of lead in their school water.<sup>13</sup> Exposure to any level of lead can increase the likelihood for health problems, brain damage, and disability in children.

Reducing schools’ environmental footprints and reducing greenhouse gas emissions in these communities are critical ways to promote equity. Improving indoor air quality in schools, adding water filtration systems, and reducing exposure to diesel emissions from school buses can promote student health, wellbeing, and opportunity to learn.<sup>14</sup>

\* Redlining refers to the federal government’s practice in the 1930s of creating maps that labeled areas with large populations of Black residents in red to discourage banks from providing mortgages to people in those areas. Redlining encouraged segregation and economic inequality which still persists today.



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## Extreme Weather and Equity

Climate impacts such as hurricanes, wildfires, and severe floods are a source of collective trauma, often causing students and families to experience homelessness, food insecurity, and loss.<sup>15</sup> Communities of color and urban and rural low-income communities often face the most significant and longest-term damages from severe weather caused by climate change.<sup>16</sup> For instance in Houston, low-income housing is more likely to be located in low-lying flood prone areas, meaning these communities were hit hardest by Hurricane Harvey.<sup>17</sup> Rural communities that depend on the land for their

livelihoods are experiencing more severe flooding and droughts.<sup>18</sup> This extreme weather damages crops and livestock, leaving communities with financial insecurity. Additionally, research shows that disaster aid after extreme weather events often widens existing racial wealth gaps.<sup>19</sup>

Though many supports are needed to advance equity and address these disparities, ensuring sufficient support in these communities for schools and providing school-based wrap-around services and student mental health support can help promote resilience.



## School Infrastructure, Resilience Hubs, and Equity

Utilizing schools as hubs of community resilience can help communities adapt to a changing climate. Yet, with the history of education funding based on local property taxes, many low-income communities with high populations of students of color have outdated school facilities.<sup>20</sup> Schools funded by the federal Bureau of Indian Education (BIE) that serve predominantly Indigenous students also frequently have unsafe facilities.<sup>21</sup> These outdated facilities are less energy efficient, have worse indoor air quality, may lack air conditioning, and are more vulnerable to severe weather. As a result, schools that have to pay more for annual maintenance and operations face greater challenges securing funding for capital improvements.<sup>22</sup>

Prioritizing low-income communities in school infrastructure investments to build sustainable school buildings and grounds not only helps mitigate schools' environmental footprints but can also make schools and communities more resilient to climate impacts. Schools that adopt more resilient infrastructure — such as solar microgrids which allow schools to retain key functions when other buildings lose power — can be critical resources for providing food, shelter, and other services during an emergency.<sup>23</sup>

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## Education and Equity

To advance a more sustainable society and succeed in the clean economy, today's students will need a better understanding of climate change, climate solutions, and environmental sustainability. Yet, too often, students of color, low-income students, students with disabilities, and rural students do not have the same educational opportunities as their peers. Schools with predominantly Black and Latino student populations are less likely to offer advanced math and science courses than schools with predominantly white students, and students with disabilities are enrolled in higher-level math and science courses at disproportionately low rates.<sup>24</sup> Students attending rural schools have lower Advanced Placement (AP) course access rates, particularly for STEM AP courses, than students attending urban or suburban schools.<sup>25</sup>

Access to climate change and sustainability education must be equitable and inclusive across the curriculum and grade levels. This includes an emphasis on accessibility for students with disabilities, during both classroom and field-based learning. In addition to equitable access, sustainability and climate change education should be culturally relevant and respect communities' environmental knowledge and relationships with the land. Schools and districts can work with students, families, Tribes, and communities to develop curricula that are culturally relevant and engaging.<sup>27</sup> Climate education can also integrate local and national environmental justice issues to provide students a better understanding of inequities across communities.

To prepare for the clean economy, students need access to green CTE programs that prepare them for clean energy jobs or to integrate environmental sustainability into any career pathway. Providing access to green CTE programs in communities that have been hardest-hit by climate change will enable students to benefit in this transition. Additionally, these programs can help opportunity youth build the skills needed to obtain jobs in a clean economy.<sup>28</sup>



### WHAT WE'VE HEARD

Student Voice activist Leigh Walden is from rural Colorado and has seen climate impacts in her hometown. Leigh attends a suburban school that teaches about climate change, but her friends who attend a rural school have not had that same opportunity.<sup>26</sup>

"In my suburban school, I have classes like AP Environmental Science and Earth science available to me. In these courses, we learn about climate change and discuss its implications. Meanwhile, the school of my peers does not require or promote these courses, discouraging students from learning about the resources needed for a safe and sustainable approach to agriculture."



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# Indigenous Children, Youth, and Communities

Indigenous peoples have a deep relationship with the land, water, and other natural elements which are integral to their cultures, knowledges, 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) shapes Indigenous youth identity and perceptions of the world. IKS has contributed to Indigenous communities leading on mitigating and responding to climate change as well as management of lands and waters in which the majority of the world's remaining biodiversity is found.<sup>29</sup>

While science and social studies education in the U.S. includes human-environment interactions, it is often narrowly focused and does not consider holistic understandings of these interactions. Rarely do these classes include Indigenous knowledge systems — a holistic, observational, and systematic way of understanding the environment and its connection to culture and society. To address climate change in schools, we need to be inclusive of Indigenous knowledge systems.



Photo by Allison Shelley for American Education: Images of Teachers and Students in Action.

Federal involvement in educating Indigenous children and youth is grounded in a history of forced removal from Indigenous lands, forced cultural assimilation through abusive boarding schools, and a lack of recognition of Tribal sovereignty. The legacy of racism and violent erasure of Indigenous people has contributed to ongoing systemic disparities in public and Tribal education of Indigenous children and youth. Ownership and stewardship of Indigenous land has also been a source of contention between Tribal, federal, and state governments both historically and currently.

Tribal nations are sovereign entities, meaning they govern themselves and their interactions with state or federal governments are considered nation-to-nation relationships. There are 574 federally-recognized Tribal nations across 35 states.<sup>31</sup> Additionally, some states have state-recognized Tribal nations that are not federally recognized and do not necessarily receive the same federal funding.<sup>32</sup>

Indigenous children and youth around the country attend a variety of schools, including general K-12 public schools, tribally-controlled schools that receive federal funding, and schools operated by the Bureau of Indian Education (BIE). Roughly 90% of Indigenous students attend traditional public schools, while around 8% attend schools run by the BIE.<sup>33</sup> In our policy recommendations, we consider opportunities to support Indigenous youth across educational settings, including the unique needs related to BIE schools.



## BRIGHT SPOTS

In Washington State, schools are required to teach about Tribal sovereignty, history, and culture through the *Since Time Immemorial* curriculum or other tribally-developed curricula.<sup>30</sup> *Since Time Immemorial* was designed in collaboration with Tribes and includes lesson materials that are aligned to state standards as well as training and implementation support for educators.

## BUREAU OF INDIAN EDUCATION SCHOOLS

The Bureau of Indian Education (BIE), a division of the U.S. Department of the Interior, is tasked with providing education to Indigenous children and youth while respecting Tribal sovereignty and cultural diversity as well as addressing the needs of the whole student within the context of their family and community. BIE serves roughly 46,000 students in 183 elementary and secondary schools on 64 reservations across 23 states.<sup>34</sup>

A persistent challenge in providing quality education to Indigenous students is ensuring that BIE-funded schools have access to the same level of high-quality instruction, support services, and school facilities as general public schools. BIE funds repairs, improvements, and construction of school facilities, which are commonly in poor condition and do not meet health and safety standards. For instance, a 2016 federal report on the condition of BIE school facilities found that, of the 13 schools visited for the report, 12 had grounds or drainage issues, 10 had asbestos or mold, and 5 were in condemned buildings.<sup>35</sup>



Safe learning environments are critical for all students, including Indigenous students in BIE schools. As we detailed in the mitigation section of this report, updating school facilities to be safer and more sustainable can have health and learning benefits for students as well as financial benefits by reducing the maintenance and operating costs associated with crumbling buildings. Decisions regarding supporting BIE schools must also be responsive to the needs, strengths, and values of Indigenous students, families, and communities.



### WHAT WE'VE HEARD

“It’s time for all schools to include Indigenous voices and methodologies

if they want to combat the climate crisis in the classroom. We are beyond learning about Indigenous people, it’s time to learn with them.”

— Owen L. Oliver (Quinault/Isleta Pueblo)  
*From the people of the Lower Columbia River, Salish Sea, and Southwest Pueblos*



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**We have worked through this commission to center issues of equity while learning about what the education sector can do to mitigate, adapt, and educate to address climate change. We have learned that, to center equity, local plans for climate action in schools must be developed with community input, based on community needs and assets, and center the voices of people who are impacted most. State and federal policymakers will play a critical role by prioritizing resources to the communities most impacted and support to address the historic educational inequities that may prevent communities from ensuring healthy sustainable learning environments for all children and youth.**

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