



School Infrastructure and Career and Technical Education To Build Back Better *Supporting schools to become global models for sustainability and preparing our youth for the clean economy*

Youth are leading the charge for our country, and the world, to take action on climate change. As policymakers consider opportunities to stimulate the economy, build back better, and create jobs, they can ensure youth are centered in our recovery and action. Investments in schools can accelerate the transition to a clean economy, empower youth to access green jobs, and build long-lasting change to advance a more sustainable, resilient, and equitable society.

Invest in School Infrastructure and Transportation

Infrastructure and transportation investments in schools can further ensure the health, safety, and well-being of students and educators, improve learning outcomes and the environmental and fiscal sustainability of schools, and build resilience for communities. To serve over 50 million students, America's 98,000 schools have considerable needs relating to infrastructure, energy, and transportation. In fact, America's schools are the second-largest public infrastructure investment, among the largest consumers of energy in the public sector, and utilize the largest mass-transit fleet in the country with 480,000 school buses. Insufficient prioritization of schools has resulted in crumbling school buildings, unsafe drinking water, and unhealthy air for children and youth, particularly for Black, Indigenous, Latino, and other youth of color and low-income youth. Yet federal investment can be used to leverage additional local, state, and private funds to transform our schools into global models for sustainable, healthy learning environments.

We recommend any economic stimulus efforts include and prioritize the following.

- ***Equity. Infrastructure investments should prioritize schools in under-resourced urban and rural communities.*** Due to resource inequities, schools located in communities with higher populations of low-income students are in poorer condition than schools in higher-resourced communities. With schools in worse condition, under-resourced communities need to [pay more annually for upkeep and maintenance](#) further exacerbating funding inequities across communities. Ensuring that infrastructure investments prioritize equity and promote the principles below can help to narrow the resource equity gap while also promote increased access to healthy, safe, and sustainable learning environments.
- ***Clean Energy. Infrastructure investments should support repairs and renovations of school buildings to increase energy-efficiency and use of renewable energy.*** Energy consumption is the second highest cost for schools behind salaries. Yet, net-zero schools and schools adopting renewable energy show it does not have to be. For instance, [Stockton Unified School District in California](#) adopted energy-efficiency education along with solar at 60% of their schools saving the district \$15 million over the past 7 years. [Batesville School District in Arkansas](#) installed solar panels and used the savings to prevent teacher layoffs and, in fact, increased teacher pay.

Clean energy in schools can also build community resilience. For instance, [Santa Barbara Unified School District](#) has increased commitments to adopt solar in their schools to create microgrids for the community. In the event of wildfire related power outages, these microgrids will provide a critical resource to the community to provide power access.

The Department of Energy helped develop [a guide](#) acknowledging a shift toward net-zero schools would create billions in cost-savings across the nation, critical in this moment of economic uncertainty. Strategies including solar, geothermal heating and cooling, natural ventilation and improved indoor air quality, and adaptive lighting can help schools make progress toward net-zero energy and create learning opportunities for students. Utilizing stimulus investments to support schools across the country in making this progress will not only increase the environmental sustainability of our schools but also ensure that local taxpayer dollars in the future can be devoted more for teaching and learning instead of operations.

- ***Clean Air. Infrastructure investments should support the transition from diesel school buses to electric buses.*** The majority of the 480,000 school buses across the country utilize diesel fuel. The use of diesel buses [increases air pollution](#) and has been linked to higher rates for respiratory illness, asthma, and poorer academic performance among students. [Research](#) has also indicated, after the upfront cost, an electric bus could save schools annually about \$2,000 in fuel costs and \$4,400 in maintenance. Some states and higher-resourced communities have started to make strides to promote the transition to electric school buses, however the upfront cost is prohibitive to many communities. Providing support for districts to transition toward electric buses, including investments in the charging infrastructure for school districts, will help improve air quality for students as well as reduce the environmental impact and economic costs for schools.
- ***Clean Water. Infrastructure investments should support access to safe drinking water in schools.*** [Research](#) has shown far too many schools have elevated levels of lead in their school water. Exposure to any level of lead can increase the likelihood for health problems, brain damage, and disability in children. Infrastructure investments should ensure lead testing as well as filtration and repairs so that all children have access to safe and healthy drinking water.
- ***Sustainable Schoolyards. Infrastructure investments should support sustainable schoolyards to improve student learning conditions and help reduce community flooding.*** [36% of America's students](#) attend schools in "heat islands" due in part to surrounding heat-trapping brick and asphalt. Increased heat exposure [disproportionately impacts learning](#) for Black and Latino students. Nationally, our school grounds cover [2 million acres](#) of land. Schools across the country from [Chicago](#) to [St. Thomas](#) have recognized that increasing sustainability of school grounds with native plants, vegetable gardens, and rain gardens not only provides healthy outdoor learning environments for students but also has the added benefit of absorbing stormwater to reduce community flooding. Infrastructure investments can support schools in expanding access to sustainable schoolyards to improve student learning and build community resilience against flooding, our most frequently occurring extreme weather event, and heat.
- ***Accessible Internet. Infrastructure investments should support efforts to increase high-speed internet access, and in particular home internet access.*** As schools across the country have closed due to COVID-19, access to virtual learning has become critical. Yet, many students from low-income families, Native American students, students of color, and students in rural communities [disproportionately lack access](#) to home internet. Schools across the country have already closed due to extreme weather events and heat. Expanding internet access can increase access to learning and build resilience for our school systems when faced with potential learning disruptions.



Invest in Career and Technical Education and Youth to Support a Clean Economy

By investing in career and technical education to increase green job pathways and to integrate environmental sustainability across career pathways, policymakers can equip youth to access and succeed in the jobs of the future.

The demand for renewable energy and green technology has been growing in recent years and will continue to expand. By the end of 2019, there were [over 3.3 million](#) Americans working in clean energy, accounting for over 40% of the energy workforce. Jobs in solar energy and wind turbines have been predicted to be the [fastest growing occupations](#) over the next decade and may be able to play an important role in the country's economic recovery. Additionally, a variety of industries including architecture, agriculture, engineering, and business are making efforts to become more sustainable and lessen their environmental impact.

We recommend any economic stimulus efforts include and prioritize the following.

- ***Invest in career and technical education programs to increase access to clean energy jobs and to integrate environmental sustainability across career pathways.*** Currently, [twenty-nine states](#) have career and technical education programs that support pathways to green jobs. Existing programs including [Bright Solar Futures](#) in Philadelphia utilize a partnership model to train students in clean energy jobs and place students in paid internships in the sector. Other models including some [P-Tech schools](#) include community colleges in their partnerships, graduate students with associate's degrees, and prepare them to enter high-quality green jobs upon graduating.

Increased funding through economic stimulus can support districts in determining opportunities to integrate environmental sustainability across career pathways and create or expand CTE courses and programs that prepare students for good jobs and careers in industries such as solar energy, wind energy, environmental engineering, sustainable agriculture, or emergency management. To ensure equity and a just transition, policymakers should prioritize districts with high percentages of students from low-income families and districts most impacted by climate change and the transition to a clean energy economy.

- ***Invest in opportunity youth to ensure an equitable and just transition.*** Currently, about 4 million youth, from 16 through 24 are not enrolled in school or participating in the labor market, and yet, to ensure an equitable just transition to build an economy that works for everyone, these youth must be included. Increasing investments in Job Corps, Youth Build, and National Service can include opportunities for apprenticeships and pathways for opportunity youth to access good jobs and careers in industries such as solar energy, wind energy, environmental engineering, sustainable agriculture, or emergency management.

By investing in our children, youth, and schools, we can build back better and commit to a more sustainable, resilient, and equitable future.



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