

Environmental Justice: An Economic Argument

Science Facts and Analysis from Science for Georgia

Executive Summary

Environmental injustice [negatively impacts the health of a community](#) and its economic prospects, furthering the cycle of poverty. Climate action funding in the United States is at an [all-time high](#), and [two-thirds of Americans](#) believe the government should be doing more to address climate concerns.

So, what's happening in Georgia? The state is [working hard](#) to bring in green jobs – which is great! However, we need to ensure that these jobs don't harm the environment and that all Georgians have the chance to develop the skills necessary for these jobs through equitable training programs. The location of these new jobs is also vital to ensuring all communities benefit from the new economy, regardless of their zip code.

Why? Georgia has a [history of environmental injustices](#) that have trapped people with a higher burden of disease and few opportunities to improve their lives independently. These injustices cost both the citizens and the government lots of money through health costs, economic costs (energy bills, insurance hikes, etc.), and poor infrastructure.

So, what do we do about it? There is currently [federal funding](#) available for projects such as home energy efficiency assistance, shifting to clean energy sources, and building EV infrastructure. The state must take full advantage of these grants to address environmental injustices while bettering the economy in the state of Georgia by reducing healthcare costs, freeing up personal income from housing expenses, and bolstering new industries that bring in sustainable revenue.

If government leaders follow these plans the state can make money through increased energy, EV exports, and buoying, not burying, under-resourced communities and lose less money to failing infrastructure.

Costs of Injustice

Health Costs

The health impacts of pollution and toxic levels of chemical buildup have been seen across the state of Georgia, with disadvantaged populations bearing the highest burden. High-cost conditions such as [severe asthma, nervous system damage, dangerous pregnancy outcomes, heart disease, and various forms of cancer](#) can cluster in these polluted areas. Both urban and rural low-income areas have [greater barriers to accessing healthcare](#), including low insurance coverage, few primary care providers, and longer distances to reach specialty providers. These issues compound, creating a cycle of poverty, illness, and medical debt.

In 2021, more than [18,600 Georgians](#) died of cancer, a rate that is much higher than the national average. Cancer is one of the costliest diseases to treat, and the costs of treatment in the US are only [expected to rise](#). Chemicals and toxins that are known cancer-causing agents have been found in the soil, water, and wildlife in areas such as [Waycross](#), [Smyrna](#), and [Brunswick](#). Cancer has been [proven to cluster](#) in rural, high-poverty areas with high percentages of black or elderly populations. Clustering of expensive medical conditions in low-income populations means higher state expenditures on Medicare and Medicaid.

Environmental Justice: An Economic Argument

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[Georgia tied for second](#) in states with highest prevalence of childhood asthma in 2021, with 9.7% of Georgian children suffering from the condition. Families in the state with [lower incomes have a higher prevalence](#) of childhood asthma than those with higher incomes. In 2020, the total charges for asthma-related hospitalizations among Georgia children amounted to \$41.6 million and Black, Non-Hispanic children had the highest rates of emergency department visits in the state, far exceeding their counterparts. This cost does not include the costs of lost wages from parents missing work, the cost of travel, or other costs of seeking healthcare.

[Risk of cardiovascular disease](#) is also a known outcome of air pollution, specifically increased levels of PM_{2.5}. Communities that experience higher concentrations of this pollutant include areas near highways, urban areas, and areas near industrial plants. The [Georgia Department of Public Health](#) reported that cardiovascular disease is the leading cause of death in Georgia and prevention could save the state billions of dollars.

It should be noted that while there are several numbers here about the prevalence and costs of these diseases, they are not solely attributed to environmental injustice. Rather, we aim to show that addressing the environmental causes of disease is not only important for the health of communities but also for the economic prosperity of the state.

Economic Costs

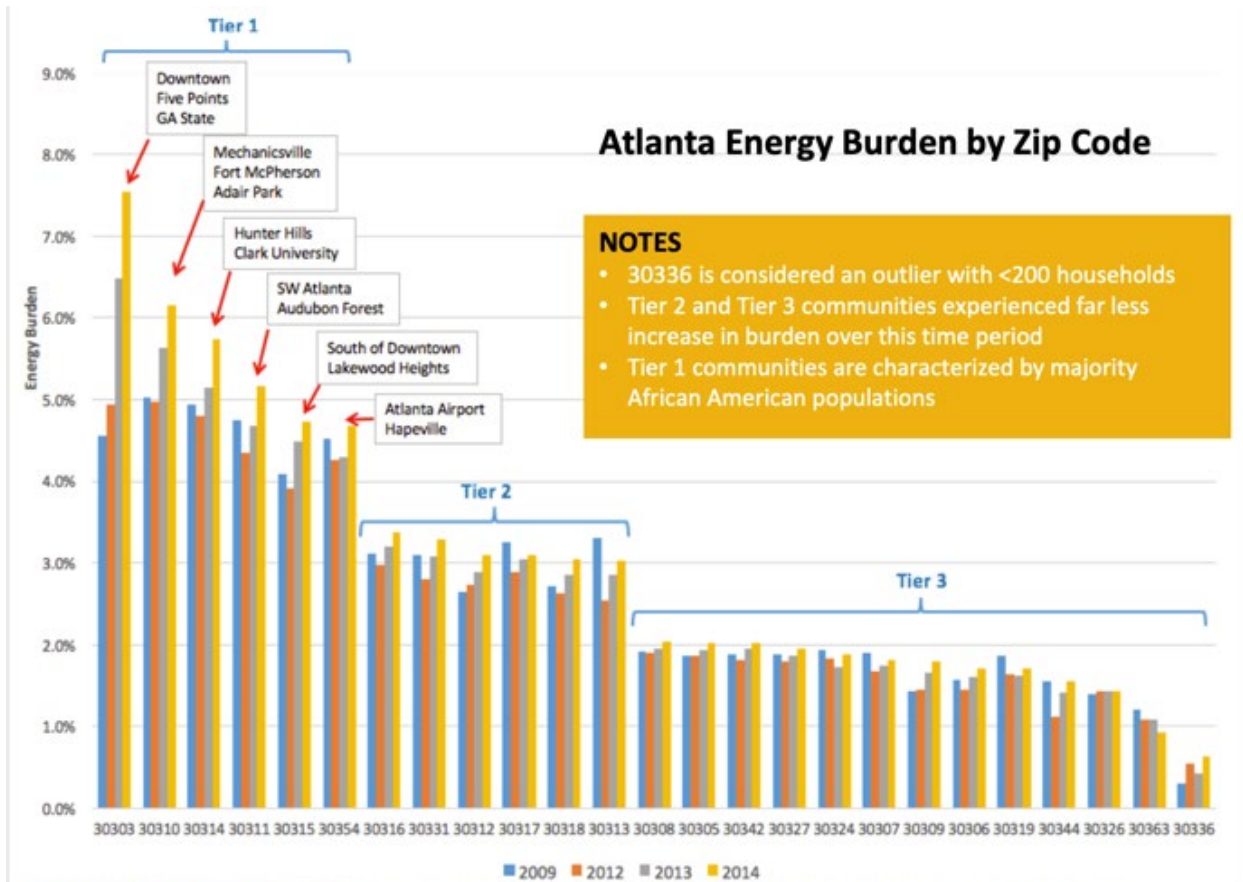
The economic costs of environmental justice can also be seen across multiple sectors in Georgia. Atlanta has the [third highest energy burden](#) among low-income households in the United States. Additionally, those households have also seen a steeper rise in the burden of energy. [Drivers of energy burden](#) include older and less efficient appliances, absence of programmable thermostats, reliance on electric heaters, older homes, and homes that are not weatherized. When low-income households must spend large portions of income to keep the lights on, it reduces the capacity for upward mobility or getting to a point where they are not living paycheck-to-paycheck. This puts them at high risk of not being able to pay bills and having power shut off during extreme heat or extreme cold. This is a health risk and can lead to [heat stroke](#), [hypothermia](#), [hospitalization](#), or [death](#).

Flooding is another economic risk for communities, and there is a higher economic risk in areas that have not been weatherized and/or [urban areas](#), where the built infrastructure (e.g. concrete) is not designed to have water absorb into the ground. In both situations, low-income households bear the highest economic burden of this flood risk and flooding due to increasing insurance costs and the inability to pay out-of-pocket to repair damages quickly. [Savannah, a majority-black city](#), is particularly at risk. Estimates have shown that Savannah could experience more than thirty tidal floods a year by the year 2030, due to the rise of sea levels.



Environmental Justice: An Economic Argument

Science Facts and Analysis from Science for Georgia



Benefits of a Green Economy

What is a green economy?

The term “[green economy](#)” is often used to describe a whole host of government actions to combat climate change and create jobs in various sectors. However, the term is often left ill-defined, so it is important to understand the basics of the interaction between the environment and the economy. Natural resources are often broken into two categories: terrestrial (soil, trees, minerals, etc.) and marine (fish, water, etc.). The “green” and “blue” economies refer to the responsible management and use of these resources; however, green economy is typically used to cover both categories.

Natural resources are finite. Population growth and overuse have led to the depletion of these finite resources creating a threat to the ecosystem of the planet and intensifying climate change. Historically, market forces around the use and exploitation of these resources did not account for their “true cost” (for example, dumping toxic waste into a river is of ‘no cost’ to the dumper, but has a high impact on the surrounding community that depends on the river). Thus, we rely on government regulation to allocate, preserve, and protect these resources. As we discuss a transition to a green economy, we will look at how every industry can interact with the environment in a way that enriches both the ecosystem and the health of the surrounding community.



Environmental Justice: An Economic Argument

Science Facts and Analysis from Science for Georgia

Green Workforce

Green jobs can include work in clean energy, electric vehicle (EV) manufacturing, sustainable agriculture, etc. Essentially, green jobs can exist in [every economic sector](#).

The creation of green jobs has been a bright spot for the state of Georgia. Since the passing of the 2022 [Inflation Reduction Act](#) (IRA), Georgia has announced over [16,000 new green jobs](#), one of the highest numbers in the country. Governor Bryan Kemp has pledged to make Georgia the “[electric mobility capital of the country](#)” and has welcomed expansions of electric vehicle manufacturing by Kia, Hyundai, and Rivian. These jobs were courted through tax breaks, infrastructure investments, and state-supported training programs and are accompanied by increases in battery production and solar energy manufacturing.

FIGURE 2

Four key tasks for city leaders on green workforce development planning



Emphasize green jobs across multiple infrastructure sectors



Emphasize the multiple actors involved in training, recruiting, and hiring green workers



Emphasize the major funding and programmatic levers to sustain green workforce development



Emphasize the key timelines and benchmarks to promote greater accountability



Source: Brookings' authors

B | Brookings Metro

While these investments are a promising step towards a green economy, it is vital that the benefits of the green economy are distributed equitably. In 2020, [only 8%](#) of the national clean energy workforce was African American. Clean energy jobs tend to be well-paid, stable careers, making them important targets for equitable distribution. Atlanta has one of the [least equitable workforces](#) of major American cities, making it an inefficient marketplace with a challenged local economy. Although job and wage growth in the city



Environmental Justice: An Economic Argument

Science Facts and Analysis from Science for Georgia

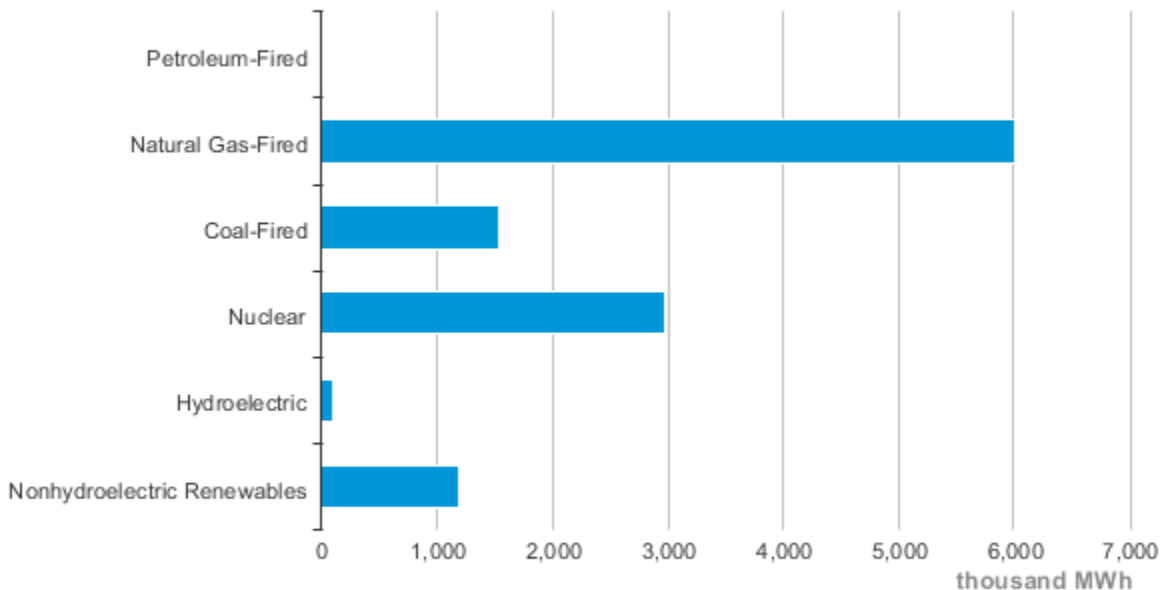
have been high in the past two decades, upward mobility rates have been among the lowest in the country. New EV plants are being placed in the majority of white counties outside of major cities such as Atlanta and Savannah. Barriers to obtaining jobs at these plants include lack of affordable housing near the plants, car ownership, high commute times, limited talent recruitment, and inadequate talent retention.

There are many actions that can be taken to lower these barriers to entry. These include increasing housing supply, creating alternate transportation options such as carpool options or bus routes, providing incentives that enable employees to buy the vehicles they manufacture, expediting EV infrastructure in low-income neighborhoods, expanding access to TCSG workforce training programs, creating scholarship programs, and recruiting in diverse schools and HBCUs. It is time for policymakers to create a [detailed and measurable plan](#) to bolster the green workforce through development and equity.

Climate Infrastructure

The [energy grid](#) offers one of the most important opportunities to create a green economy and while also [reducing the high energy burdens](#) felt in the state. The approved [Georgia Power plan](#) includes the elimination of coal-fired power by 2028 but increases the amount of natural gas-fired power. Natural gas is not a renewable resource, and this would be detrimental to the goal of reaching a clean energy grid. [Using renewable resources](#) such as wind and solar lowers energy costs in the short-term and creates economic stability in the long-term.

Georgia Net Electricity Generation by Source, Jun. 2023



Source: Energy Information Administration, Electric Power Monthly



Environmental Justice: An Economic Argument

Science Facts and Analysis from Science for Georgia

Many cities are using green infrastructure (GI) plans to mitigate the impacts of climate change such as flooding and the urban heat island effect. GI is used to make urban environments mirror natural ecosystems. Examples include rain gardens, green roofs, and biodiverse planting. The upfront costs of replacing gray infrastructure with green infrastructure are outweighed by the long-term economic benefits of avoiding gray infrastructure maintenance. A case study in Pennsylvania showed that Chester County saved approximately **\$27 million annually** after the implementation of its GI plan. [Greening of low-income neighborhoods](#) is connected to community revitalization, affordability, walkability, safety, job creation, and improved mental and physical health.

However, GI plans in Atlanta [do not meet key metrics](#) to ensure equity in GI is achieved. While all of the plans speak to equity concerns, very few explicitly define equity or have tangible plans to address equity issues. The chart below breaks down the weaknesses of each plan in respect to equity. The threat of potential, green-related gentrification reinforces the need for thoughtful and equitable planning that protects against unwanted negative side effects.

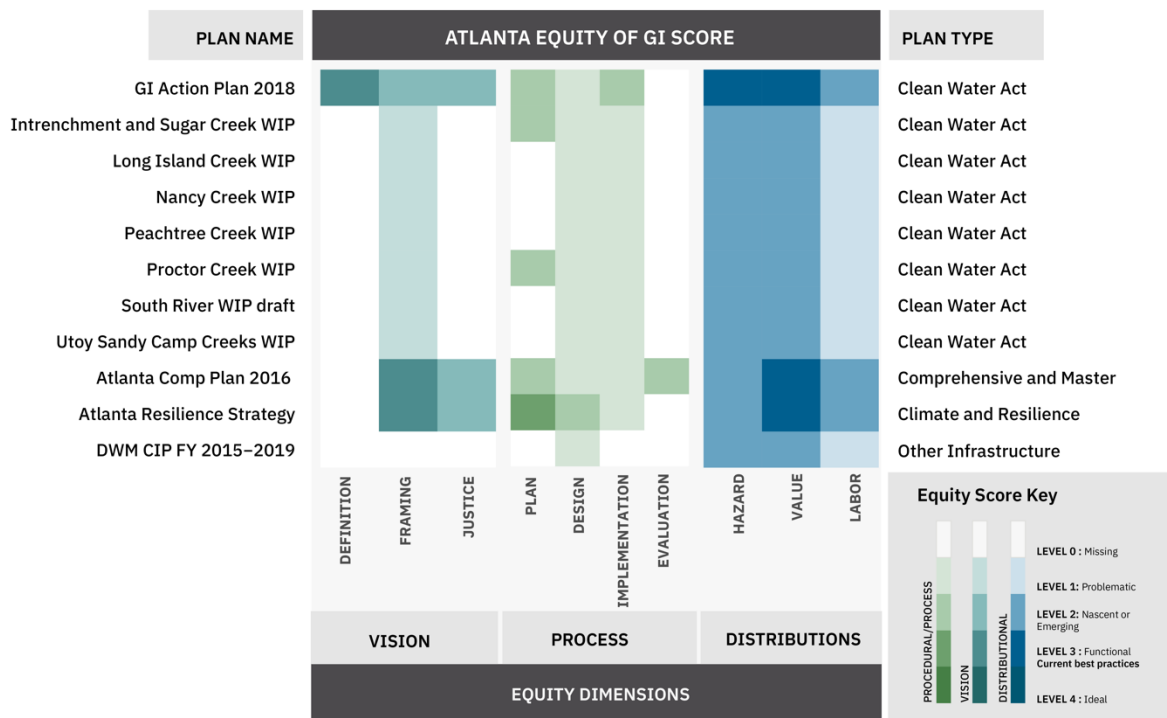


Fig: Comprehensiveness of Equity in GI Planning



Environmental Justice: An Economic Argument

Science Facts and Analysis from Science for Georgia

How to Reach a Green Economy

The Inflation Reduction Act (IRA) has designated a significant amount of funding towards greening the economy with an estimated [\\$40 billion](#) going directly to communities with EJ concerns. [The investments coming into Georgia](#) from the IRA include approximately \$180 million in clean energy investments, \$26 billion in battery supply chain investments, \$28.7 million in EV infrastructure investments, and \$219 million in Home Energy Rebate programs. This federal funding presents an opportunity to address environmental injustices while bettering the economy in the state of Georgia by reducing healthcare costs, freeing up personal income from housing expenses, and bolstering new industries that bring in sustainable revenue.

Checklist to a Green Economy

- ❑ Environmental Impact Assessments should be required for all new projects and the findings should be prioritized when deciding to move forward.
- ❑ Health Impact Assessments should be required for all new projects to ensure the health of a community is not negatively impacted.
- ❑ Public comment periods should be utilized to ensure communities have input in any projects or policies that impact them. To ensure accessibility they should be held in the affected area, use the appropriate language(s) and translations, be announced with advance notice, and be held at an appropriate time for the community's needs.
- ❑ Equitable workforce development should be a priority for any plans to train Georgians to take on the new green jobs. Economic impact plans should include information about working with local TCSGs (Technical College System of Georgia – these institutions are all over the state) to build the necessary skills to work in new plants. These plants should also be placed in areas that afford economic opportunity to vulnerable populations.

About Science for Georgia

Science for Georgia is a 501c3 dedicated to bridging the gap between scientists and the public through training, outreach opportunities, and direct contact with the public, policymakers, and the press. Science for Georgia highlights how science can impact people's lives and advocates for the responsible use of science in public policy.

Please reach out with any questions or comments info@sci4ga.org



Environmental Justice: An Economic Argument

Science Facts and Analysis from Science for Georgia

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Environmental Justice: An Economic Argument

Science Facts and Analysis from Science for Georgia

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Environmental Justice: An Economic Argument

Science Facts and Analysis from Science for Georgia

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