

# Exploring What Greening the Economy Means for African American Workers, Entrepreneurs, and Communities

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## Abstract

As the United States recovers from the worst economic crisis in 80 years, both environmental and economic epidemics are disproportionately affecting communities of color. The U.S. unemployment rate stands near 10%. Yet for African Americans in some areas, it is twice as high. Simultaneously, the world is threatened by the effects of climate change and increasing environmental health issues, whereas communities of color are overburdened by environmental injustices. The Obama administration has invested heavily in policies to “green the economy” as a strategy to preserve the environment while stimulating economic recovery in large part through The American Reinvestment and Recovery Act of 2009. Although this strategy has yielded tremendous opportunity, resource distribution has been uneven across geographic areas and demographic groups. Unfortunately, some of our nation’s neediest people and communities are being left out of the green revolution. This essay discusses the impact of “greening the economy” for African Americans and suggests possible steps toward addressing inequality in resource access and distribution.

## Keywords

ARRA, entrepreneurs, green economy, inequality, jobs

As the United States strives to recover from the worst economic crisis in nearly 80 years, two separate but interrelated epidemics are plaguing communities of color and impeding their environmental and economic sustainability. The official unemployment rate in the United States stands at nearly 10%, with the rate among African Americans in some major cities nearly twice as high. At the same time, the world is facing a tremendous threat from the effects of climate change and the rapid depletion of our natural resources. Both these crises have disproportionately affected African American and other communities of color jeopardizing economic viability, personal and community health, and long-term sustainability. However, policy solutions are not reaching this group in a way that adequately addresses their circumstances.

The Obama administration has invested heavily in programs and policies to “green the economy” as a strategy to preserve the environment while stimulating economic recovery and job creation. Greening the economy is achieved by creating regulations, standards, investments, and incentives that stimulate production and economic activity broadly aimed at decreasing environmental degradation via either the way goods and services are produced or the kind of products that are produced and used. Although the primary goal of the American Recovery and Reinvestment Act of 2009 (ARRA) was to revive the economy, the bill is heavily focused on green initiatives. The strategy of simultaneously reviving

the economy and caring for the environment has been dubbed the “green recovery” (Pollin, Garrett-Peltier, Heintz, & Scharber, 2008). Although ARRA alone accounts for more than \$787 billion in investment, the combination of several federal state and local green policy initiatives multiply public investment well beyond this figure. In addition to public investment, venture capitalists have invested heavily in the green economy. According to a report by the Pew Charitable Trusts (2009), between 2006 and 2008, about \$12.6 billion of venture capital was invested in clean technology businesses, and the number continues to increase each year. Sales receipts for various alternative fuels and energy sources are projected to reach more than \$226.5 billion within the next 10 years (Pernick & Wilder, 2007). The U.S. Bureau of Labor Statistics (BLS, 2007) has projected that the number of green jobs will grow by more than 4 million by the year 2038. Because of the potential impact of an investment of this magnitude and breadth, many economists believe that the green economy strategy could cause a fundamental shift

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in composition of jobs in the United States and, hence, a transformation in the structure of our economy (Bivens, Irons, & Pollack, 2009). This means that those on the inside of the change will benefit and those on the outside will be left behind. However, some scholars and social advocates believe that with proper policy guidance, the green economy (and particularly the jobs it creates) could help substantially decrease poverty levels (Gordon & Hays, 2008; Pollin, Wicks-Lim, & Garrett-Peltier, 2009).

A wide range of federal, state, and local policy interventions have been aimed at addressing the unemployment issue, the environmental issue, or both. In some instances, these initiatives have been either folded into or linked to local sustainability or climate action plans. However, there is little agreement on the definition of critical concepts such as “green” and “sustainable,” and the specific program components included in each initiative differ tremendously across regions (see Bassett & Shandas, 2010; Berke & Conroy, 2000). Furthermore, social equity issues regarding poor and marginalized populations are notably absent from sustainability plans and priorities (Agyeman, Bullard, & Evans, 2003; Fitzgerald, 2010; Hecht, 2009; Warner, 2002). Unfortunately, some of the neediest populations and communities (including African Americans) are not well positioned to reap the benefits from the green recovery resources and as a result are being left out (“Interview With John Powell,” 2010; V. Jones, 2009).

The purpose of this article is to explore the impact of greening the economy (focusing on ARRA) for African American workers, businesses, and communities relative to Whites and to explore possible explanations. I argue that the implementation of green initiatives and the distribution of resources have been uneven across demographic groups and geographic areas (e.g., neighborhoods) and that African Americans are not benefiting as much as Whites. I suggest five possible steps toward addressing inequality in access to and distribution of available green resources.

This analysis is based on four sources of data. I review existing literature and reports for statistics and trends on green economy investment, job creation, and analysis of ARRA funding distribution. I combine demographic data from the U.S. Census Bureau with ARRA distribution data from the website [www.recovery.gov](http://www.recovery.gov) to show patterns of racial distribution for ARRA across space. Finally, I used personal interviews from my own previous research (combined with that of others) to examine challenges that Black entrepreneurs have faced.

In the sections that follow, first I discuss the evolution and definition of the green economy in the context of concerns over social equity and economic recovery. Next, I outline the magnitude and scope of policy initiatives and private investment focused on the green economy. After that, I discuss the patterns of unequal distribution for green economy resources and possible explanations for those patterns. Finally, I suggest possible steps toward ensuring that African Americans are included and benefit from the green economy.

## Evolution to a Green Economy

The green economy has been the topic of a great deal of discussion and debate, particularly in the past 10 years. Because of the tremendous amount of resources involved, declaring which economic activities, jobs, industries, and/or occupations are included (and which are left out) will have significant impacts on the future and economic well-being of those firms, workers, and communities that land on either side of the determining line. For that reason, it is important to discuss the origins and meaning of the green economy in order to contextualize the significance of the distribution issues discussed herein.

The current manifestation of the green economy is the culmination of a number of developments dating back several decades. A flurry of environment-related policy in the 1960s and 1970s included the formation of the U.S. Environmental Protection Agency, as well as several crucial pieces of legislation such as the Clean Air Act (1963), Air Quality Act (1967), and Federal Water Pollution Control Amendment (1972). The fervor to regulate environmental harms also brought to light the well-documented distribution of environmental injustices disproportionately concentrated in poor areas and communities of color. Race was identified as a key factor in predicting the distribution of air pollution (Gianessi, Peskin, & Wolff, 1979; Wernette & Nieves, 1991), landfills and incinerators (Bullard, 1983, 1990; Bullard & Wright, 1990), toxic waste dumps (United Church of Christ Commission for Racial Justice, 1987), and lead poisoning (Mott, 1995). Although policy makers attempted to regulate the destructive behavior of industry, proponents of the environmental racism theory charged that policies and regulations regarding environmental issues exclude people of color from the decision-making process (Agyeman et al., 2003; Faber, 1998; Pulido, 1996).

At the center of much of the environmental dialogue were cities. Fitzgerald (2010) points out that cities consume the overwhelming majority of the world's energy and produce the majority of its greenhouse gas emissions. The sheer impact has helped fuel the call for more sustainable methods of development. In many cities, this includes reducing waste, creating sustainable urban design, and addressing the issues of environmental health and water (Berke & Conroy, 2000). Sustainability, a much broader notion than environmentalism, includes concerns over ecological, economic, and social well being. The most often quoted definition of sustainable development is “development that meets the needs of present generations without compromising the ability of future generations to meet their own needs” (World Commission on Environment and Development, 1987, p. 8). The sustainability rhetoric theoretically linked environmental concerns with social justice issues and the economy. However, the call for “just sustainability” highlighted the need to specifically consider social equity and race as important factors in

quality-of-life discussions (Agyeman et al., 2003; Bullard, Mohai, Saha, & Wright, 2007; Pulido, 2000; Warner, 2002).

Several factors pushed the combined sustainability and environmental movements to become the green economy. First, to obtain large scale buy-in and traction for the environmental agenda, advocates needed to show the economic and other benefits. Environmentalists had to look for “local hooks” (Betsill, 2001) in order to gain the interest of constituents and elected officials. They used economics as a tool in three ways: (a) to make the case for government that imposing standards would ultimately result in cost savings to consumers, (b) to estimate for corporations the cost of environmentally harmful production process, and (c) to show investors the high growth rate for green-related industries (Vascellaro, 2005). Countless studies emerged on the economic benefits of green development that reframed the environmental focus from being exclusively concerned with environmental consciousness to also acknowledging and appreciating green economic opportunity. For example, the U.S. Department of Energy conducted a study, which estimated that for every \$1 million invested in weatherization programs in low-income communities, 52 jobs would be created (U.S. Department of Energy, 2006). A second push came from new environmental regulation that created incentives for private investment in companies and processes designed to meet the new regulatory requirements. Finally, government investment subsidized the expansion of some existing industries and encouraged the development of whole new industries.

By the late 1980s, the green movement became the green economy. Along with the evolution to include an economic framework, came the call for economic justice including eco-equity (see V. Jones, 2009). By the time President Obama was elected and the economy was officially in recession, his plan to simultaneously invest in the environment and create jobs had been dubbed the “green new deal” suggesting that both economic and social progress could be achieved by greening the economy. According to Van Jones (2009), an inclusive green economy would strive for equal protection for all, equal opportunity for all, and reverence for creation.

Currently, no universal definition of the green economy exists. Green goods and services (and hence green jobs) are commonly identified based on either their inputs (e.g., those using recycled material), their production processes (e.g., using energy-efficient procedures), or their outputs (e.g., products and services used to improve energy efficiency). The unit of analysis most often used to measure the level of activity, size, and impact of the green economy is jobs. In 2010, the U.S. BLS began collecting data on “green jobs.” In its words, “[B]roadly defined, green jobs are jobs involved in economic activities that help protect or restore the environment or conserve natural resources.” In considering both outputs and processes, it has identified detailed industries (based

on six-digit NAICS [North American Industry Classification System] codes) that produce green goods and services. Using this list, BLS “will estimate green jobs for a NAICS industry by summing the green jobs found at individual establishments classified within the industry” (U.S. Department of Labor, 2010). To be sure, the data collected by BLS will have tremendous influence on future social and economic policy related to the distribution of green resources.

Given the linkages between environmentalism, social justice, and sustainable development, some scholars and advocates have a broader concept of the meaning of a green job. They insist that for a job to be considered “green,” it must uphold certain quality of life standards, such as providing living wages and acceptable work conditions (V. Jones, 2009). According to Pinderhughes (2006, p. 3), “[G]reen collar jobs represent an important new category of workforce opportunities because they are relatively high quality jobs, with relatively low barriers to entry, in sectors that are poised for dramatic growth.” Their definition of green jobs takes into consideration implications for social and economic sustainability in addition to its contribution to saving the environment. Those industries, firms, and jobs considered to be included in the definition of the green economy have been the primary target for policies and resources aimed at stimulating economic activity. As a result, people who work in green jobs and places where green businesses are located stand to benefit the most.

## Green Policy Initiatives

The policies and programs aimed at greening the economy have created an unprecedented and diverse set of opportunities for individuals, businesses, and communities. Green economy and job initiatives stem from numerous different perspectives and institutional sources. For example, the Energy Independence and Security Act signed into law in 2007 incorporated the Green Jobs Act of 2007, authorizing \$125 million to train about 30,000 workers for jobs in emerging green sectors. The American Clean Energy and Security Act of 2009 was designed to “create clean energy jobs, achieve energy independence, reduce global warming pollution and transition to a clean energy economy” (Govtrack.us, 2010).

However, the ARRA is by far the most significant policy initiative ever aimed at growing and perpetuating the green economy. With a total investment of \$787 billion, ARRA includes funding for a broad array of activities including investment in infrastructure, social services, direct training, research, industry support, technology, and much more. Although a significant amount of this funding is devoted directly to typically green activities (\$14.5 billion to the U.S. Department of Energy and \$9.6 billion to the U.S. Environmental Protection Agency), other areas of investment include activities such as green building in construction and housing, green transportation, and green job training in workforce development (Recovery.gov, 2010).

This infusion of funds has been repackaged and distributed in countless ways among various federal, state, and local agencies and departments. The U.S. Department of Labor, for example, has allocated approximately \$500 million in funds from the ARRA specifically toward training for green jobs. One hundred fifty million dollars of the funds were earmarked to support Pathways out of Poverty, which are initiatives targeted at training low-income individuals for green-collar careers in growing industry sectors (U.S. Department of Labor, Economic Training Administration, 2010). Several other federal departments, as well as state and local government agencies, are developing their own green initiatives and programs. Most of these initiatives result in the creation of jobs. According to a report by Pew Charitable Trusts (2009):

Thirty-two states provide residential, commercial and industrial loan financing for the purchase of renewable energy or energy efficiency systems or equipment. Twenty-three states and the District of Columbia offer rebate programs to promote the installation of renewable energy systems and energy efficiency measures such as solar water heating and photovoltaic systems. Forty-six states offer some form of tax incentive to encourage residents and corporations to use renewable energy or adopt energy efficiency systems and equipment. (p. 36)<sup>1</sup>

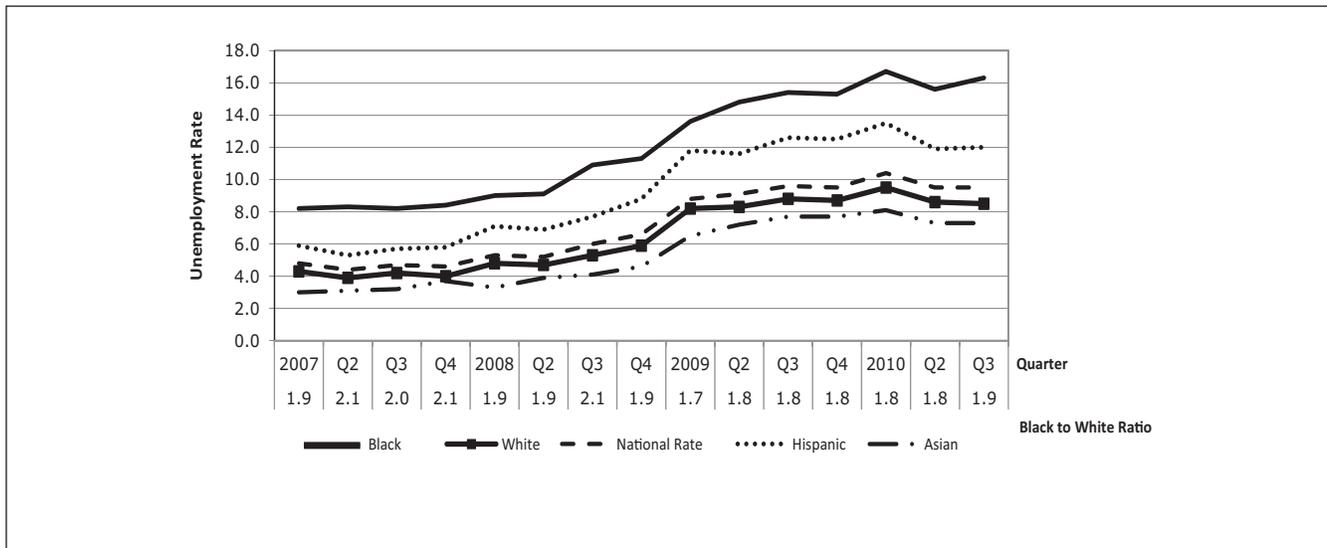
In addition, several community-based organizations and other social service organizations are starting their own green initiatives. For example, Alpha Phi Alpha, a predominantly African American fraternity, recently announced its Alpha Goes Green Initiative in partnership with the Environmental Defense Fund.<sup>2</sup> Together these green initiatives promise to create a substantial number of jobs and business opportunities across a wide variety of economic sectors and many occupational skill levels.

Entrepreneurship has been another key focus of the economic recovery and the green investment agenda. One outcome of greening the economy is the rapid growth of businesses in a broad range of primary and secondary fields. In a recent speech, Gary Locke, Secretary of Commerce, made it clear that his department is invested in innovation, entrepreneurship, technology transfer, and technology commercialization as important components of the economic recovery strategy and for reversing environmental degradation (Locke, 2010). Additionally, Small Business Administrator Karen Mills proclaimed that "Already, small businesses are one of the driving forces in the green energy sector" (media conference, March 17, 2010; see <http://energy.gov/articles/doe-releases-new-report-benefits-recovery-act-small-businesses-clean-energy-environmental>). More evidence of a growing focus on entrepreneurship can be found in the American Clean Energy and Security Act of 2009. Along with calling for a

significant reduction in required energy use for new and renovated buildings, the legislation requires that local public administrators ensure that an adequate number of qualified firms exist to create a competitive market for both the labor and professional services required for the renovation and construction work that needs to be undertaken to meet the new green building requirements. In addition, the bill requires the Small Business Administration to expedite loans for small businesses interested in implementing new innovations in clean energy (Govtrackus, 2010). Taken together, these programs and funding streams create a tremendous amount of opportunity for those organizations, firms, and individuals poised to take advantage of these new resources. At the same time, there is a growing concern over the implications of the new green focus for those individuals, businesses, and communities that are not a part of the growing green economy.

Green economy initiatives could be particularly attractive tools for regional, local, and community economic development and workforce development purposes. Several of the core industries identified as green (or containing green jobs) are projected to grow exponentially over the next 10 years, extending their local impact in terms of both time frame and depth—which are both key considerations when devising economic and workforce development strategies. Although in general green jobs are distributed across all occupation and education levels, a significant portion of the green jobs being created have the potential to improve the lives of those with lower education levels and/or those who need added assistance to connect to the labor market (often found in communities of color). According to a recent report published by the Economic Policy Institute, more of the jobs created as a result of "green investment" are filled by workers with less than a college degree than by workers with college degrees (Bivens et al., 2009). At the same time, many of the green jobs pay wages estimated as much as 25% higher than jobs in other industries with comparable education requirements (Bivens et al., 2009). Furthermore, many green jobs programs are designed to offer on-the-job training and apprenticeships, thus providing experience that will increase the chances of future labor market success. Consequently, the human and community impact of development tied to these jobs is likely to be sustainable over time.

Several scholars have underscored the crucial role of policy in determining the quality and distribution of green jobs (Chapple, Kroll, & Montero, 2010; Fitzgerald, 2010; V. Jones, 2009). They point out that not all green jobs are well-paying jobs with career opportunities and potential for sustainability in the future. More important, not everyone will benefit. Fitzgerald (2010) reminds us of the important role of labor market policy for addressing job quality issues. I would emphasize that specific benefits from greening a local economy and how those benefits are distributed will likely rely heavily on local authorities' ability to establish their own equity standards and outcome targets through a planning and



**Figure 1.** U.S. quarterly unemployment rates by race from 2007 to 2010  
 Source: U.S. Bureau of Labor Statistics (2007, 2009, 2010).

implementation process, which leverages existing resources and relationships and includes quality of life and equity goals customized for their unique context.

## Distribution of Green Economy Resources

Unfortunately, many of the neediest people and communities (particularly African Americans) are not receiving their proportional share of the green recovery resources and are not benefiting at the same rate as others. The first two stated purposes of ARRA are (a) to preserve and create jobs and promote economic recovery and (b) to assist those most affected by the recession (American Recovery and Reinvestment Act of 2009). Gimpel, Lee, and Thorpe (2010, p. 9) analyze ARRA spending data and argue that "Clearly, the ARRA did target federal resources to particular locations, just the wrong ones from a need perspective." Their regression analysis results show that the counties most negatively affected by the recession (as measured by job loss and foreclosure) did not receive anymore ARRA funds than others, and in fact, counties with greater increases in unemployment between 2007 and 2009 on average, received fewer stimulus dollars.

Both African-American workers and Black-owned businesses have benefited less from current economic and environmental policy interventions than their White counterparts despite being disproportionately affected by both the economic recession and environmental injustices. To start, African Americans and Latinos account for less than 30% of workers employed in the green economy (Liu & Keleher, 2009). In addition, the persistent and increasing gap between Black and White unemployment rates suggests that Black

workers may not be benefiting from the new jobs created by the ARRA stimulus at the same rate as Whites. Figure 1 uses BLS data to trace quarterly unemployment rates by race from 2007 to 2010. Although the unemployment rate for all groups has followed similar increasing trends, the Black unemployment rate has remained well above other groups. In fact, the Black to White unemployment ratio has hovered consistently between 1.75 and 2.12. In the third quarter of 2010, although the White unemployment rate stood at 8.5%, the Black rate was 16.3%, 92% higher. Some argue that in cities such as Milwaukee and Detroit, the actual joblessness rate<sup>3</sup> for Black men is as high as 53% and 59%, respectively (Levine, 2010).

Similar impact disparities can be found among Black-owned businesses. Data from the Federal Procurement Data System confirm that as of September 2010, Black-owned firms represented 7.1% of all business in the United States but had only been awarded 3.5% of the ARRA total procurement contracts (which amounted to 2.6% of funds), whereas White firms that make up 83% of all firms had been awarded nearly 83% of all contracts (Kirwan Institute for the Study of Race and Ethnicity, 2010a). The same patterns can be seen at the state level as well. In the state of New York, for example, as of June 2010, Black-owned firms comprised 10.4% of all businesses but had only received 3.1% of all ARRA-awarded contracts, which were worth 1.4% of the state's ARRA-awarded funds. White-owned firms, on the other hand, comprised 76% of the state's firms but were awarded 85% of government contracts (Kirwan Institute for the Study of Race and Ethnicity, 2010b). Trends in employment and among firms are intricately linked as several studies have shown that Black firms are more likely to hire Black workers

**Table 1.** Factors Affecting African American Participation in the Green Economy

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Institutional/policy
1. Lack of leadership in mainstream environmental movement
2. Lack of accountability in the American Recovery and Reinvestment Act of 2009
3. Complicated process/lack of capacity
4. Lack of local policy, planning, and goals
Individual/employment
5. Underrepresentation in key sectors
6. Certifications and credentials
7. Spatial mismatch
8. Dearth of African American–owned green businesses
Firm/entrepreneur
9. Traditional barriers
10. Short time line
11. Project size
12. Union preference
13. Lack of compliance accountability

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than firms owned by Whites (Bates, 1994; Boston, 2005; Boston & Ross, 1997). Hence, the lack of benefit that Black-owned businesses reap from ARRA and other green-related funds also lessens the likelihood that Black workers will be hired in green jobs.

Another externality of the racial disparity in distribution of green funding resources is the potential exacerbation of environmental injustices. As discussed above, the disproportionate impact of environmental injustices on minority communities has been well documented (Agyeman, 2005; Agyeman et al., 2003; United Church of Christ Commission for Racial Justice, 1987). African American communities are differentially burdened by environmental hazards, unhealthy land uses, and a lack of health-promoting infrastructure. Many environmental justice advocates believe that the green economy can help produce jobs that reduce pollution emissions, particularly greenhouse gases; create better housing (indoor air quality and more energy efficiency); and encourage better quality infrastructure, including transportation, pedestrian infrastructure, parks, green space, and supermarkets (S. M. Wilson, Hutson, & Mujahid, 2008). Ultimately, they believe that the green economy can help produce jobs that reduce economic disparities and can also lead to the production of healthier community ecosystems (S. M. Wilson, 2009). The fact that the green jobs funding is not reaching disadvantaged communities burdened by environmental injustice means that along with economic disparities, the environmental, social, and health disparities will likely be exacerbated.

### Explaining the Trends

Several factors help to explain why African American workers, businesses, and communities are not receiving their proportional share of the resources now available,

particularly those related to the green economy. Based on analysis of relevant literature, data, and policies related to ARRA and the green economy, 12 key factors emerge as relevant contributors to the current distribution of resources to African Americans (see Table 1). The factors span across three relevant levels of impact: institutional/policy, individual/worker, and firm/entrepreneur.

One factor that may be contributing to the lack of consideration for African Americans, their specific issues, and possible contributions is their limited participation in the leadership of the mainstream environmental movement. According to a report from the Minority Environmental Leadership Development Initiative, of 158 environmental institutions, 33% of mainstream environmental organizations and 22% of government agencies had no people of color on staff (Nealy, 2009). Barriers that have affected minority environmental participation have been well documented (Mohai, 1985, 2003; Taylor, 1989, 1992). Several studies have refuted previously held perceptions that Blacks are less concerned about environmental issues as an explanation for their limited role in mainstream environmental initiatives (R. Jones & Carter, 1994; Mohai, 1990; Taylor, 2008). Instead, scholars have pointed to the lack of priority given to the specific environmental concerns of African Americans by mainstream environmental groups as one point of disconnection (Bullard, 1990; Mohai, 1985; Ringquist, 2003; Taylor, 1999). Furthermore, African American leaders have accused mainstream environmental organizations of being racist in the hiring and promotion of African Americans (Shabecoff, 1990). In fact, a spokesman for a number of the mainstream groups targeted for the accusation admitted to their having a poor record in this area (Shabecoff, 1990). In the absence of representative leadership, the issues affecting African Americans and their communities have been largely ignored. Although grassroots initiatives aimed specifically at addressing environmental justice have been

gaining momentum, the inclusion of African Americans in more mainstream green activities (including economic ones) has been limited.

From a policy standpoint, a huge issue is a lack of accountability in the law. Although ARRA required the collection and transparency of how funds were distributed in general, it does not require that data be collected on whether the stimulus dollars are affecting the communities hit hardest by the recession—which are likely low-income communities or communities of color. Absent this level of monitoring, transparency, distribution, and accountability issues are likely to go unaddressed.

From an institutional standpoint, the combination of complicated ARRA guidelines and processes, tight time frames, and capacity deficiencies of local institutions all serve as factors affecting African American participation in the green economy. John Powell of the Kirwan Institute speculated that many local governments are not clear on how to access stimulus funds for the most basic green projects (Padgett, 2009). National advocacy organizations such as Policy Link and Green for All have tried to simplify the ARRA process by offering online databases delineating details of what funds are available from each agency, deadline dates, and specific requirements and seminars on how to access funding. However, I have found no evidence of efforts by the federal government to reach out to marginalized groups and communities to ensure their inclusion in the distribution of available resources. This lack of capacity is likely replicated at the level of community agencies. Because of limited resources, community-based organizations that address hard-to-serve (mostly minority) populations and communities are often not equipped to engage in the complicated process required to access federal funding streams, especially within very short time frames. The end result may be that even when resources are available, they often do not reach the communities that need them most.

The sheer volume of jobs projected to either be created or transformed in the green economy make the workforce a critical component of any green development strategies. However, four factors stand out as barriers to African American employment in the green economy. First, African American workers and other minority groups are underrepresented in many of the industries most likely to benefit from the greening of the economy and many are ill prepared to enter these industries. For example, it is estimated that as many as 40% of green jobs are construction jobs, yet in 2009, African Americans represented only about 5% of workers in the construction industry (U.S. BLS, 2009). The discriminatory nature of the construction industry toward minorities has been well documented (see Bates, 2006a). A second disadvantage for African American workers is that many of the green jobs require industry specific credentials or training that are not easily or quickly obtained in their communities, such as Leadership in Energy and Environmental Design

certification or Certification as an Environmental Auditor. White, Dresser, and Rodgers (2010) find that “even the more modest technician certifications require both academic and applied skills.” Their assessment of green job credentials reveals that some certification tests require an 11th-grade reading level, which will likely exclude some disadvantaged workers. Although these certifications are not necessary for all green jobs, they are often required for the better paying positions. Although many construction jobs require less than a high school education, the ones with the best earnings potential require at least a moderate level of on-the-job training (Pollin et al., 2009), a professional certificate, or some other form of training (Cleary & Kopicki, 2009).

The third employment barrier lies in the fact that there may be a spatial mismatch between where most of the new green economic activity is taking place and where African Americans reside. Literature on the geography of opportunity (see Galster & Killen, 1995) establishes the link between place and economic mobility (Sharkey, 2009). The spatial mismatch hypothesis contends that there is a mismatch between where jobs are located and where marginalized residents live (Kain, 1968; for a review, see Ihlanfeldt & Sjoquist, 1998). Although this phenomenon has been most closely associated with the exodus of manufacturing jobs (W. J. Wilson, 1987, 1996), the geographic distribution of green recovery resources, which currently represents the most promising opportunity, is also showing signs of mismatch.

According to a report published by the Center for Innovation at the University of California, Berkeley, green business location decisions are driven by location of the executive’s residence, existence of a strong green local market for the product, quality of life, and quality of labor pool (Chapple & Hutson, 2010). The level of segregation and concentrations of African Americans in high-poverty neighborhoods has been well established in the literature (Jargowsky, 2003; Massey & Denton, 1993). Most of the communities where African Americans live are not concentrated with residents who are executives in the business world, they are not likely to be a strong market for green products, and their labor pools are often concentrated with workers with limited skills and education. This would suggest that these communities are less likely to be chosen as sites for new green businesses. Furthermore, discrimination (among other factors) makes it harder for African Americans (as compared with Whites) to move to where jobs are located (Yinger, 1995). This, coupled with inadequate public transportation systems and lack of access to private transportation, will likely lead to a mismatch between where a great number of the green jobs are created and where African Americans (particularly low-income, labor market-challenged ones) live.

The case of New York City allows us to specifically examine the geographic distribution of ARRA funds in relation to race. This analysis shows that distribution of total investment, jobs per resident, and per capita funding all

**Table 2.** NYC ARRA Funding and Population by Percentage of African American by Borough

	Population	Percent African American	ARRA funding <sup>a</sup> (in millions)	Percent of NYC funds	Jobs created	Jobs per 1,000 <sup>b</sup>	Dollars per capita <sup>b</sup>
Staten Island	483,168	9.9	\$246	0.07	241	0.50	\$509
Manhattan	1,620,962	15.3	\$3,100	0.85	5,302	3.27	\$1,912
Queens	2,278,860	19.2	\$69	0.02	118	0.05	\$30
Bronx	1,381,529	34	\$114	0.03	284	0.21	\$83
Brooklyn	2,538,140	34.7	\$124	0.03	323	0.13	\$49
Total			\$3,653		6,268		

Note. NYC = New York City; ARRA = American Recovery and Reinvestment Act. ARRA funding data from Recovery.gov, as cited in Kirwan Institute for the Study of Race and Ethnicity (2010b); demographic data from the U.S. Census Bureau, 2005-2009 American Community Survey 5-Year Estimate.

a. Based on data as of September 2010.

b. Figures have been rounded.

benefit areas with lower concentrations of African Americans more than those with higher concentrations. Table 2 shows the distribution of ARRA funds, jobs created, and total population across the five boroughs of New York City, along with the concentration of African Americans in each. Manhattan and Staten Island have the lowest percentages of African Americans (15.3% and 9.9%, respectively), whereas the Bronx and Brooklyn have the highest percentages (34% and 34.7%, respectively). By far, Manhattan has received the greatest share of funds (85%) with Staten Island, Brooklyn, the Bronx, and Queens following, respectively. When we consider these investments in terms of their meaning for residents, the patterns become more disturbing. Funding per capita for the boroughs with lower concentrations of African Americans is remarkably higher than in the two boroughs with high concentrations of African Americans. Per capita funding in Manhattan (\$1,912) is 39 times higher than in Brooklyn (\$49) and 23 times higher than in the Bronx (\$83); Staten Island dollars per capita is 6 times higher than in Brooklyn and 10 times higher than in the Bronx. The same pattern can be seen in job creation. Although the amount of job creation thus far is low, Manhattan has by far the greatest share of jobs per 1,000 people (3.2)—15 times the amount in the Bronx (0.20) and 25 times the amount in Brooklyn (0.13). Staten Island also has more than twice as many jobs per 1,000 people as the Bronx and nearly 4 times as many as Brooklyn. Although it is true that significant transportation linkages exist between the five boroughs and therefore, theoretically, residents of Brooklyn and the Bronx may have access to jobs in Manhattan and Staten Island, two issues arise. First, cost is a major factor to be considered in access. According to an article in the *New York Times* (Grynbaum, 2011), in 2010 consumer costs increased for every type of transportation in the city—this makes it the third year in a row that the cost of a metro card has risen. Second, scholars have pointed out that along with spatial access to jobs, space

may also determine connectivity to social networks, which affects access to information on job openings (W. J. Wilson, 1987, 1996). In sum, concentrations of both green investment and job opportunities in geographic areas where fewer Blacks reside make it less likely that the majority of them will connect to and benefit from these resources. The initial analysis for New York reveals a disturbing trend that would repeat the past mistakes in the distribution of funds and implementation of programs—communities of color will again be left out with only minimal opportunities whereas White communities benefit.

The fourth employment-related barrier that affects both individual workers and firms is the lack of African American business ownership among firms included in the green economy. Equal Employment Opportunity Commission data shows that less than 9% of energy sector firms are owned or managed by people of color (Apollon, 2010). As stated earlier, research has shown that African American business owners are more likely than White business owners to hire African American workers (Bates, 2006b). It follows that the scarcity of green businesses owned by African Americans decreases the likelihood that African Americans will be hired in these businesses. From a business perspective, the lack of African American-owned green businesses also decreases the pool of business partners in one's community or immediate social network with whom to exchange information and share knowledge. Social networks have been well established as an important source of support and access to resources for businesses (Coleman, 1988; Putnam, 1993).

Like African American workers, Black entrepreneurs and their firms have faced several challenges in obtaining access to ARRA contracts and other green funding resources. Some of the challenges can be attributed to well-documented barriers common to African American business owners, such as lack of capital, bonding, and insurance; size of firms; and limited relationships with majority-owned firms (Bates,

2009; Harper-Anderson, 2009a). I would argue that the design and implementation of ARRA make it even more likely that these factors will serve to exclude African American entrepreneurs from current contract opportunities. One example is the priority given to “shovel ready” projects as a means to adhere to a very short time frame for obtaining ARRA money allocated. ARRA gives preference (a goal of 50%) to projects that can be completed within 120 days of commencement. This means that if a project was not already in the cue to be undertaken (which projects by small Black firms likely were not), that project would not be a priority to receive funding.

Another barrier identified by Black business owners is the practice of jurisdictions rolling several smaller projects and programs into very large ones and relying on their preferred contractors (predominantly large, White-owned firms) to implement them. Since Black-owned firms tend to be smaller than the average firm,<sup>4</sup> the size and scope of these mega projects likely place them beyond their financial and technical capacity. Although this practice is not unique to ARRA, the short time line and lack of accountability for distribution of contracts have made the practice almost standard with ARRA funds.

Yet another policy that has been particularly detrimental in the construction industry is the practice in some states of limiting ARRA contracts exclusively to union contractors. According to John Macklin, president of the Philadelphia chapter of the National Association of Minority Contractors and regional vice president for the northeast region of the association, states in his region have project labor agreements in place that permit projects to be serviced only by union contractors, which represent only 15% of the workforce (Hutson, 2009). This is particularly troubling given the extensive research detailing the racial exclusion of Blacks from unions, especially in construction (see Bates, 2006a).

Even when inclusionary stipulations are in place, compliance has proven to be elusive. Business owners and their advocates complain that although some programs are set up for disadvantaged businesses (which include most African American-owned firms), there are limited clawbacks for noncompliance. For example, advocates have pointed out that the U.S. Department of Transportation documented in its own reports that as of the end of 2009, of the \$48 billion in federal stimulus funds committed for highway construction via states, only \$986 million (2%) were committed to disadvantaged and minority contractors, despite the 10% mandatory minimum. Furthermore, of the \$163.8 million in contracts that U.S. Department of Transportation awarded directly, \$9.7 million went to women-owned businesses, \$4.7 million to Hispanic-owned businesses, and \$0 to Black-owned businesses (Barrett, 2010). Similar accounts of exclusion and lack of accountability are reported by members of the California Black Chamber of Commerce (see Glantz, 2009).

The current push for a green economy represents an important juncture in our economic and social history. This massive investment has created an opportunity to engage individuals and communities that have been hit the hardest by the latest economic recession in addition to already being largely disconnected from participation and prosperity in the formal economy. However, greening the economy is not a panacea for economic recovery nor will the tide of resources automatically raise all boats. The current situation represents a watershed moment wherein a bad situation could turn much worse. If adequate planning and attention is not directed toward the way funds are being distributed and the process made more transparent, John Powell, director of the Kirwan Institute, warns that the economic restructuring (including the greening of the economy) “could end up worsening the racial disparity” (Padgett, 2009). Leaving the disenfranchised out of yet another important transformation in the economy could dictate their economic fates for a long time to come. A positive step toward leveling the playing field would entail addressing the issues that are systematically excluding Black workers and Black-owned firms from participating in green initiatives that clearly represent the future of our economy.

### *Engaging Green Resources for an Effective and Equitable Recovery*

To address the issues of disproportional impact, steps must be taken to guide the green development process, taking care to ensure that the approach used establishes a foundation for economic, social, and environmental sustainability simultaneously. The five recommendations listed in Table 3 broadly outline potential steps in that direction.

### *Need for a Green Planning Process*

What differentiates the green economy development strategy from other economic development strategies is the breadth of its reach across numerous diverse industry sectors, occupational groups, geographic spaces, political interests, and institutional agents. As a result, the stakeholders come from a broad array of perspectives, and combined they have a complex set of goals. A particularly daunting challenge is to bring together those who are primarily interested in the “green” component or environmental concerns with those more focused on the “economy” component or economic growth and to have both of these camps consider the social implications of their actions. Campbell (1996) argues that the planner’s role is to operate at the intersection of these three. However, planners have been notably absent from environmental plans (Bassett & Shandas, 2010), and when plans are in place for these and related goals (e.g., sustainability), the equity issue is not adequately addressed (Berke & Conroy, 2000).

**Table 3.** Steps Toward More Equitable Green Economy

	Steps	Benefits
1. Engage in a green planning process	Engage all stakeholders and groups Identify key needs and issues for all groups Assess resources available Create plan that links resources and issues with other plans and includes equity goals	Tailor activities, and resources to fulfill local plans and goals Representation of African Americans voice and issues in plans
2. Target investment	Earmark funds Create customized education and training in green sectors Demand commitment and support from public officials and green industry leaders	Increase representation in green sectors Localize green employment and education opportunities Generate interest and develop skills among disconnected population Build local workforce and entrepreneurial capacity
3. Support entrepreneurship	Provide funding for small businesses Facilitate mentorships and partnerships Provide education Assess proposed policies for impact on entrepreneurs	Address traditional barriers Support workforce development and economic development Create employment Strengthen local and regional economy
4. Integrate green initiatives into broader systems	Connect to existing systems (workforce development, K-12 education, local economic development)	Provide accessibility Increase efficiency in resource use and administration
5. Increase accountability at all levels	Create community benefits agreements Create local data-tracking systems	Increase likelihood of more equitable distribution Enable more accurately evaluation of policy impact

Many cities and states do not have a plan for bringing together and coordinating the green resources available to them. A key issue pointed out by several administrators in large cities is the lack of clarity in the meaning of “green the economy” and the lack of a cohesive direction among various stakeholders in each region (personal interviews, December 2009). In some jurisdictions, this situation has produced a collection of disjointed initiatives, each operating in pursuit of its own agenda and often in seclusion from others with similar or the same goals (personal interviews, December 2009). The result has been an institutional infrastructure with plenty of holes and cracks for the most vulnerable people and communities to slip through.

To increase the likelihood that together these initiatives add up to real development that benefits everyone, it is important to identify, organize, and reconcile the varied goals of the stakeholders who will be affected by greening the economy of a local area or region as well as to figure out the best use of the available resources to meet those goals. This requires a commitment to have all interests represented at the table with equal voices and equal power in the final outcome. This is precisely what planners are trained to do, but they have been notably absent from the process. Bassett and Shandas (2010, p. 442) explain that, “[P]lanners, who are trained in participatory techniques and have grappled

extensively with the challenges of developing broad inclusionary processes could provide outreach and engage the community . . .” However, they note that (at least for climate action planning) the process has been dominated by technicians and engineers. Regions need both a comprehensive plan and local policies in place to support economic and equity goals. According to Pinderhughes (2007), “local policy measures are one of the most effective ways to ensure that the benefits of the green economy are equitably distributed across all sectors.” To effectively and efficiently harness the resources and bring them to bear jointly on green economy goals (environmental and economic well-being), a green planning process is necessary.

A green planning process must move beyond the creation of vague lists on websites noting all of the ways that a city or region is contributing to a cleaner environment or a compilation of jargon-filled green goals, “symbolic rhetoric.”<sup>5</sup> The process must also do more than simply tout the level of investment and job growth created by “greening the economy” for marketing and branding purposes. An effective green planning process must focus on real local and regional development (as opposed to simple growth), which requires an action plan to strategically coordinate resources around set goals.

The first step to an effective green planning process is bringing the region’s stakeholders together to create a

unified vision of what they want their green economy to look like and how they plan to achieve their vision. Established values and unity of vision will provide a platform around which the various institutions, organizations, and agencies can link together for mutual support, joint learning, and collective innovation. To insure that African Americans and their communities are part of the new green economy, their issues and their challenges have to be an integral part of the green plan, not an afterthought.

Plans for creating a green economy must also be linked to other relevant plans and systems. Coordinating green plans with other plans (e.g., economic development and land use) will allow local administrators to take advantage of existing resources and expertise. Furthermore, by making green projects and initiatives an integral part of other development agendas, they will be more likely to actually get carried out.

Although engaging in a planning process will not address the policy flaws that have helped create the current position of African Americans, it will allow local stakeholders to purposefully guide the resources available in a way that reflects their values and addresses the needs of their particular population and local environment. Only through this type of strategic and transparent planning process can we ensure that African American workers, businesses, and communities (along with other vulnerable groups) are not bypassed.

### *Target Investment*

In addition to developing goals and vision for the economy, green resources need to be targeted at communities and individuals with the most critical needs and those that are in danger of being left out of the green revolution. As our experience with recent macroeconomic transformations (e.g., technology revolution) and policy initiatives has taught us, the rising tide does not raise all boats equally—the greening of the economy also has not benefitted all people and communities equally. Bartik (1990) argues that economic development strategies should aim to correct market failures. Insofar as greening the economy is being used as an economic development strategy, green planning processes must also take into account the failures that this transformation will create and address them by targeting those affected. The importance of policy to target and guide the green economy has been reiterated time and time again (Agyeman, 2005; Agyeman et al., 2003; Chapple & Hutson, 2010; Fitzgerald, 2010; Kirwan Institute for the Study of Race and Ethnicity, 2010a, Pinderhughes, 2006). The only way to ensure that resources actually reach African Americans and address their unique challenges for participating in (and, more importantly, contributing to) the green economy is to target available resources to this population and to use them in a way that addresses their specific challenges.

Although there are many social reasons why local areas should be concerned with distributional equity in greening the economy, there are also economic justifications. As

mentioned earlier, location of green firms is connected to skilled and knowledgeable workforce and quality of life in a place. In situations where significant portions of the workforce and/or geography (i.e., neighborhoods) cannot contribute to these attributes, the entire region is at a relative disadvantage. On the one hand, inequality and poverty both have a negative impact on regional growth (Pastor & Benner, 2008). On the other hand, Eberts, Erickcek, and Kleinhenz (2006) found that a skilled workforce, high levels of racial inclusion, and decreases in income inequality all have a positive influence on economic growth. A more equitable distribution and impact of green resources would increase the contribution that disadvantaged workers, entrepreneurs, and communities can make toward increasing regional competitiveness.

Communities of color have a farther way to go in order to climb both out of the economic recession and out of the human capital deficit than other communities. Universal strategies do not address their specific challenges to gaining or regaining their economic footing. John Powell explains that, “[G]oals should be universal but strategy should be tailored to the needs of the population” (“Interview With John Powell,” 2010). One strategy that could respond to specific challenges might be to earmark a percentage of green economy funds specifically for investment in communities with the greatest needs for jobs and the least amount of green economic activity (businesses, jobs, investment, environmental preservation, and restoration). Targeting could also entail building bridges between disconnected populations and key green sectors by investing in the creation of customized curricula specifically for the education and training institutions that service the disconnected populations, thus providing the critical knowledge and skills in demand in green industries. A comprehensive customized curriculum would address not only the mainstream environmental agenda but also issues and activities of particular relevance to the communities where African Americans live. In addition to directing public funding and resources to these groups, it would also be of great benefit if local civic leaders put pressure on their industry colleagues to commit to social equity by targeting opportunities and resources to groups that are underrepresented in their industries. As previous research on diversity has shown, the dedication of political leaders to racial diversity and equity goes a long way toward encouraging corporate leaders to also take it seriously (Harper-Anderson, 2009a).

Targeted investment toward African American workers, communities, and their organizations will help address both individual and institutional capacity issues as well break through unfair barriers that have blocked their access to green economy opportunity.

### *Support Green Entrepreneurship*

Entrepreneurship is an important component of any green development strategy for two key reasons. First, the

greening of the economy has increased the demand for products and services required to meet new environmental policy mandates and broader sustainability goals. Innovative new firms as well as retooled existing firms will be required to meet the demand. In addition, the rise in outsourcing and subcontracting as common work arrangements has multiplied the number of people who are either self-employed or independent contractors (Benner, 2002). Some of them find themselves having to piece together contracts, market their services, and build relationships in an effort to sustain their economic security in today's labor market. In essence they have become "hybrid entrepreneurs" (Harper-Anderson, 2009a, 2009b). Sometimes these contractors develop into traditional entrepreneurs and provide important goods and services to underserved markets in their communities. Both traditional and hybrid entrepreneurs can provide a critical source of labor and untapped innovation as the market for green products and services continues to evolve and reach a more geographically and ethnically diverse customer base.

Research on the rate of long-term unemployment for African Americans coupled with the tremendous growth of sole proprietorship firms among African Americans suggests that entrepreneurship and self-employment is a growing trend within this population (Harper-Anderson, 2009b). The greening of the economy offers an opportunity to link both traditional and hybrid entrepreneurs into growing and evolving sectors that could offer steady income for some time to come.

Supporting African American entrepreneurs in the green economy would have to start with addressing traditional barriers that have historically impeded their success with new firms. Since access to capital has been the most prevalent, providing financial backing would help mitigate this issue to some extent. To address the dearth of African American-owned firms in green industries, funding terms for public subsidies to mainstream firms involved in the green economy could be used to incentivize substantive partnerships with underrepresented fledgling firms. In addition, to ensure that the firms that do exist continue to develop, community-based organizations could be engaged to provide ongoing education and training on business practices as well as new developments (standards, processes, opportunities) in green sectors. Finally, at the local, state, and federal levels, administrators should review policies for distribution and contract award to assess the implications of existing practices for small minority firms.

Supporting green entrepreneurship among African Americans would allow them to participate and prosper in the most promising sectors of this economic era. Tailored support such as access to capital and partnership opportunities will help alleviate some of the barriers that have impeded their participation thus far. Rather than focusing solely on traditional job training as a means to self sufficiency, supporting both traditional and hybrid entrepreneurs simultaneously

addresses economic and workforce development objectives by creating businesses and jobs. Green entrepreneurship would provide African Americans an opportunity to contribute to and have a stake in their region's economic future.

### *Integrate Green Initiative Into Broader Systems*

One factor contributing to the lack of participation and benefit for African Americans in ARRA-funded projects and other green initiatives is a lack of access to information and knowledge regarding green opportunities and careers. Research on job search strategies for the hard to place populations suggests that trust and familiarity are important considerations in how people tend to seek out assistance and information. The fundamental tenants for green economy strategies for development are not entirely different from past development strategies and hence have many possible connections to systems already in place. To simultaneously improve accessibility and avoid overlap between green resources and already existing initiatives, green economy initiatives need to build on the strengths of systems already in place when appropriate while seeking to create innovative new program and policy models to address unique features of this approach. For example, rather than each green initiative creating a completely new training and job placement component, White et al. (2010) recommend that green workforce initiatives be integrated into preexisting workforce programs. Other relevant systems might include economic development (job creation) and K-12 education (to develop interest and prerequisite skills). Most relevant here is that existing systems represent familiar and accessible vehicles through which many disadvantaged current and future workers can connect to opportunities being created by greening the economy. Furthermore, taking advantage of existing program infrastructure and resources in achieving green economy objectives (e.g., job creation and workforce development) could increase efficiency for both.

### *Increase Accountability at All Levels*

Extensive monitoring and tracking of resources and their impacts at all levels (federal, state, and local) are critical to ensure that green resources do not exacerbate preexisting inequalities and that distribution of benefits is fair. In addition to holding local administrators of funding streams accountable for overseeing the process, businesses that receive funds must also be required to adhere to their promises for creating jobs, hiring local residents, and investing in communities where they do business. Although accountability has been a persistent and widely discussed challenge for the use of economic development incentives,<sup>6</sup> the promise of transparency that accompanied ARRA funds makes the adamant quest for accountability even more

appropriate. Furthermore, to ensure that accountability is meaningful, it must be coupled with clearly defined criteria for evaluating the success of green initiatives, including standards for inclusiveness, equity, and quality of life among various neighborhoods and socioeconomic groups. Pastor and Turner (2010) suggest community benefits agreements as one possible approach. Although this concept has been used to describe a broad array of arrangements between developers and communities, Gross (2008) insists that these agreements should be based on legally binding contracts regarding the promised community benefits and that the specifics of details should be based on an inclusive democratic process that addresses the community's concerns and desires. Pastor and Turner (2010, p. 13) believes that "taking a CBA-style strategy to the local implementation of ARRA projects might make-up for the equity provisions that did not make their way into the bill itself." This level of accountability would require that local administrators engage in their own data collection that is specifically geared toward local goals and values (which hopefully includes equity and diversity, rather than solely relying on more general data collected by federal mandates). Insisting on a higher level of accountability for each person, group, or institution who assumes responsibility for green resources will increase the likelihood that the green economy promise is fulfilled for everyone.

Major transformation in the economy most often leads to reconfiguration of the social relations of production. Historically, macroeconomic transformations, particularly in the United States, have had a few things in common. First, they often provide increased economic and social opportunity for some. Almost invariably they reconfigure the social relations of production as well as inequality patterns (Harper-Anderson, 2008). Resources driving the transformation (technology, knowledge, public mandate, funding, etc.) are concentrated in the hands of a relatively small group. Finally, somebody always gets left behind. Historically, African Americans have been on the short end of all of these trends.

Like the technological revolution before it, the far-reaching green revolution is pervasive and has the potential to set the tone of the economy and social conditions for many years to come. Although the ARRA phase of this revolution is well into the implementation phase,<sup>7</sup> I suspect that there will be several more waves of policies and programs to promote the green economy. With proper planning, the green economy can become an integral part of both local and federal systems designed to support and productively engage all members of our society in the growth and strengthening of the economy. It is still early enough in the process to learn from our past mistakes and to make greening the economy a positive, equitable, and sustainable step forward for all.

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### Notes

1. Pew Charitable Trusts report cites the Database of State Incentives for Renewables and Efficiency (<http://www.dsireusa.org>) as the source for figures reported.
2. See <http://green.apa1906.net/partnerships.aspx> for more details on the Alpha Goes Green initiative.
3. Levine (2010) defines joblessness as "the percentage of the *total* working age not employed; *everyone* between the ages of 16 and 64, not just those active in the civilian labor force."
4. According to the 2007 Economic Census, Survey of Business Owners, 94% of Black-owned businesses had no employees compared with only 84% in the overall economy (which includes both payroll firms with no employees and firms with no payroll); among all employer firms, the average number of employees per firm was 20.4, whereas for Black-owned employer firms, the average number of employees per firm was 8.6. See <http://www.census.gov/econ/sbo/#black> for more detailed statistics on Black-owned businesses in the United States.
5. Andrews (1997) refers to sustainable development as symbolic rhetoric.
6. See Ledebur and Woodward (1990) for a good discussion of incentive issues and incentive controls.
7. One requirement of ARRA funding is that it had to be committed by the end of the 2010 fiscal year and spent by the end of the 2011 fiscal year.

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