



GREEN-COLLAR JOBS IN AMERICA'S CITIES

BUILDING PATHWAYS OUT OF POVERTY AND CAREERS IN THE CLEAN ENERGY ECONOMY



Apollo Alliance • Green For All

with

Center for American Progress • Center on Wisconsin Strategy



The Apollo Alliance is a coalition of business, labor, environmental, and community leaders working to catalyze a clean energy revolution in America to reduce our nation's dependence on foreign oil, cut the carbon emissions that are destabilizing our climate, and expand opportunities for American businesses and workers. Inspired by the vision and technological achievements of the Apollo space program, we promote policies and initiatives to speed invest-

ment in clean energy technology and energy efficiency, put millions of Americans to work in a new generation of well-paid, green collar jobs, and make America a global leader in clean energy products and services.

www.apolloalliance.org



Green For All has a simple but ambitious mission: to help build a green economy strong enough to lift people out of poverty. By advocating for a national commitment to job training, employment and entrepreneurial opportunities in the emerging green economy—especially for people from disadvantaged communities—we fight both poverty and pollution at the same time. We are

committed to securing one billion dollars by 2012 to create “green pathways out of poverty” for 250,000 people in the United States, by greatly expanding federal government and private sector commitments to “green-collar” jobs.

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Center for American Progress is a nonpartisan research and educational institute dedicated to promoting a strong, just, and free America that ensures opportunity for all. We believe that Americans are bound

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center on wisconsin strategy

Center on Wisconsin Strategy (COWS) is a national policy center and field laboratory for high-road economic development—a competitive market economy of shared prosperity, environmental sustainability, and capable democratic government. COWS work is collaborative, experimental, and

evidence-driven. Working with business, government, labor, and communities, we try out new ideas, test their effectiveness, and disseminate those with promise. We believe that the best way to predict the future is to start making it, particularly in our states and metro regions.

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Note from authors: We acknowledge that the field of green-collar workforce development is a rapidly-developing one. In a single report, it would be impossible to capture perfectly its national scope and scale. We do not claim to have included every worthy project, program or initiative. We do hope that this report serves as a useful entry-point and guide to those interested in building a just, green economy.

FOREWORD



Van Jones, President and Founder, Green For All

Something remarkable is happening in America. People everywhere are daring to dream of a new future—one in which a strong green economy provides opportunity and security for all of us.

Community leaders and presidential candidates are talking about the promise of green-collar jobs to serve the planet and the people. We are on the cusp of a major change. We are ready to rebuild American competitiveness and leadership by investing in environmental protection and by investing in our people.

Our green future will be invented at the local level. It will be crafted by local leaders. This report offers those leaders some of the best thinking and models currently available for building green-collar jobs and the training pipelines necessary for city residents to fill those jobs and claim the promise of living wage careers.

This report is not a one-size-fits-all formula. Rather, it is a strategic framework within which local policymakers and advocates can develop a green-collar jobs initiative that responds to the realities of their local economies and communities while offering hope and opportunity to those who most need it.

What this report cannot provide is political will. That must be provided by all of us, working together to construct a green economy strong enough to lift people out of poverty. We need bold and committed action, coupled with smart thinking, to simultaneously save the planet and reclaim the dream of an America we've always imagined.

Let's do it now. There's no time to waste.



Jerome Ringo, President, Apollo Alliance



INTRODUCTION

The movement to make American cities more sustainable, efficient and livable is perhaps the greatest new engine for urban economic growth, innovation and job creation in many decades.

The American Solar Energy Society estimates that in 2006 alone, renewable energy and energy efficiency were responsible for \$970 billion in industry revenues and 8.5 million jobs.¹ This number will grow exponentially if our nation commits itself in earnest to reducing carbon emissions and making economy-wide improvements in energy efficiency.

Unfortunately, America's growing green economy faces a looming labor shortage in sectors like manufacturing, construction and installation. In a 2005 survey by the National Association of Manufacturers, 90 percent of respondents indicated a moderate to severe shortage of qualified, skilled production employees like machinists and technicians. Similarly, the National Renewable Energy Lab has identified a shortage of skills and training as a leading barrier to renewable energy and energy efficiency growth.² This labor shortage is only likely to get more severe as baby-boomers skilled in current energy technologies retire; in the power sector, for example, nearly one-quarter of the current workforce will be eligible for retirement in the next five to seven years.³

Clearly if America is to rise to the global energy challenge, and capture the economic opportunity it represents, we need to prepare the next generation of Americans for the important work that lies ahead. Green jobs exist, and are growing, in a range of industries and at every skill and wage level. Many are in the skilled trades: manufacturing, construction, operation and maintenance, and installation. Most are “middle-skill” jobs, requiring more education than a high school diploma, but less than a four-year degree. Some are a bridge to high-skill professional jobs or entrepreneurial opportunities; others are perfect entry level or transitional jobs for urban residents looking for

a pathway out of poverty. In short, green jobs are the kind of family-supporting jobs that once anchored the American middle class, but in the industries of the future: industries like wind turbine manufacturing, solar panel installation, energy efficiency retrofits, and green building.

This publication focuses on local green jobs in clean energy industries—energy efficiency, renewable energy, alternative transportation, and low-carbon fuels. Specifically, it offers guidance on how cities can link residents to *green-collar jobs*: family-supporting, career-track jobs in green industries. We hope it will help cities across America develop strategies to expand their green economies, and connect the promise of the global clean energy future to the practical realities of local green economic and workforce development.

If your city or region wants to find ways to leverage local environmental, economic development, and workforce development programs to grow the green-collar jobs of the future, this report is for you. It explains the link between embracing visionary public policies and investments, and expanding demand for local green-collar workers. It outlines the importance of building on existing workforce and economic development initiatives to meet this demand. It lays out ways to link traditional training partnerships to Green Jobs Corps, or similar initiatives that offer pathways out of poverty. And it shows how the success of your green-collar jobs effort can help build a broader-based constituency for even more ambitious clean energy initiatives in the years to come.

The field of green economic and workforce development is a new and exciting one. The strategies outlined in this report build on the hard work being done right now in cities across America. Please let us know what you think—we look forward to hearing from you, learning from you, and building your experiences into the next edition of this report. Thank you for your interest in, and commitment to, building a clean energy future for America.



GREEN-COLLAR JOBS — A DEFINITION

Green-collar jobs, as we define them, are well-paid, career track jobs that contribute directly to preserving or enhancing environmental quality. Like traditional blue-collar jobs, green-collar jobs range from low-skill, entry-level positions to high-skill, higher-paid jobs, and include opportunities for advancement in both skills and wages.

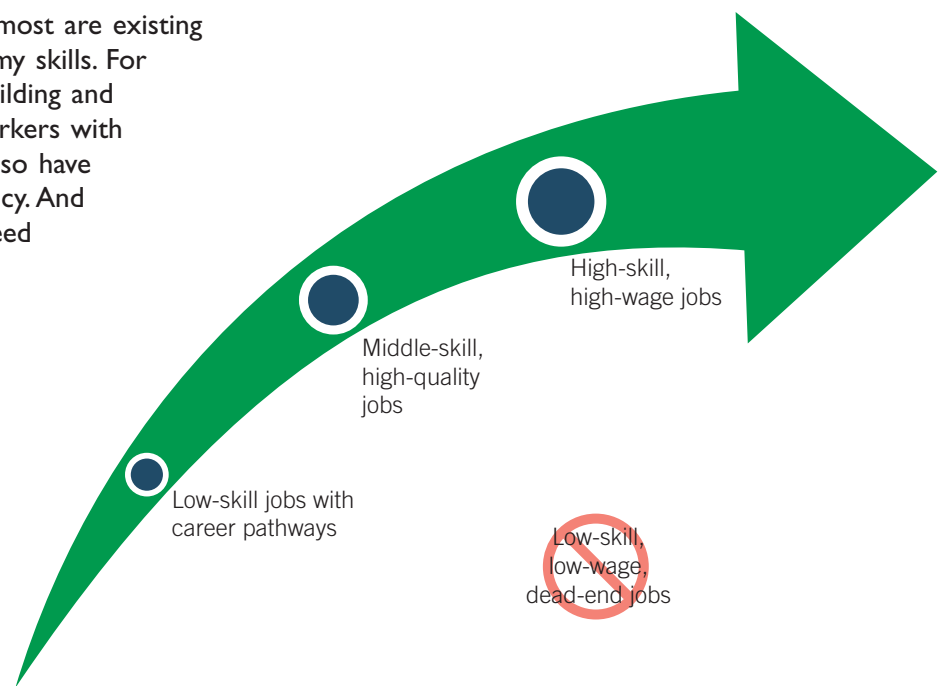
Green-collar jobs tend to be local because many involve work transforming and upgrading the immediate built and natural environment—work such as retrofitting buildings, installing solar panels, constructing transit lines, and landscaping.

Green-collar jobs are in construction, manufacturing, installation, maintenance, agriculture, and many other sectors of the economy. A number of recent publications describe these jobs in detail (see “Resources” section). While some green-collar jobs (e.g. wind turbine technician) are in new occupations, most are existing jobs that demand new green economy skills. For example, construction companies building and retrofitting America’s cities need workers with traditional construction skills who also have up-to-date training in energy efficiency. And employers doing solar installation need workers with conventional electrical training, in addition to specialized solar skills.

Because the phrase “green-collar job” has been bandied about so much lately, it is important to emphasize once again what we mean—or rather, what we do *not* mean—when we use this term. Put simply, if a job improves the environment, but doesn’t provide a family-supporting wage or a career ladder to move low-income workers

into higher-skilled occupations, it is not a green-collar job. Such would be the case with workers installing solar panels without job security or proper training, or young people pushing brooms at a green building site without opportunity for training or advancement.

In sum, spurring the creation of green-collar jobs in your community means more than creating short-term work on individual green projects. It means building a sustainable economy, where environmental goals go hand in hand with social and economic goals. It means embracing visionary policies for your community, mobilizing all of the resources at your disposal to meet those goals, and explicitly working to expand the number of long-term, high-quality green-collar jobs for local residents.





SPURRING THE CREATION OF GREEN-COLLAR JOBS IN YOUR CITY

The following steps are essential to building an effective green-collar jobs program in your community:

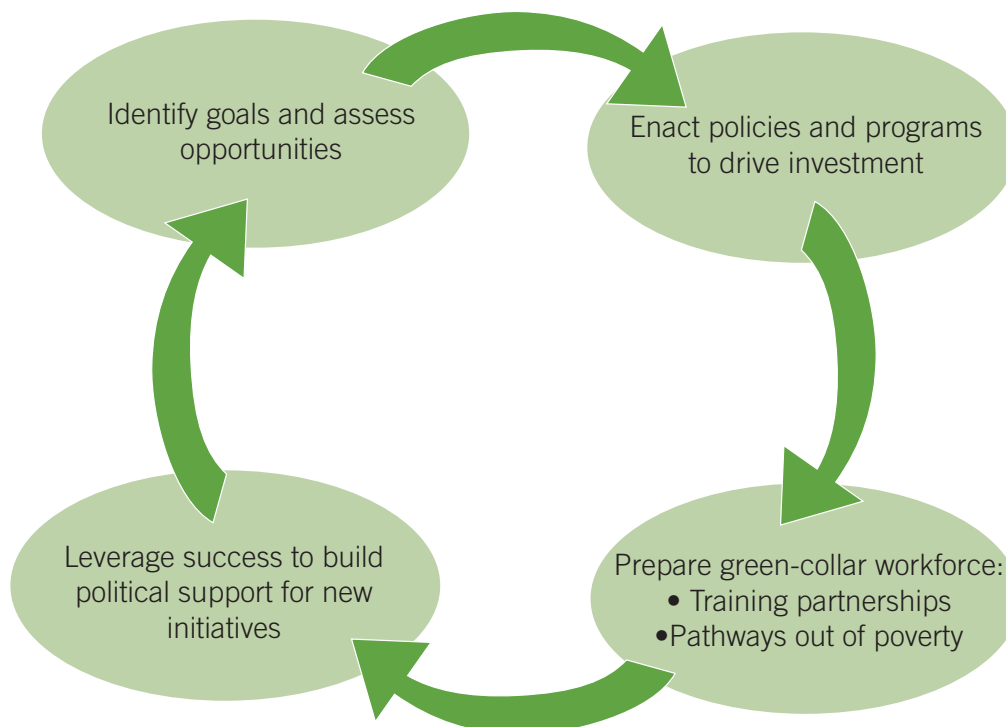
1. Identify your environmental and economic goals, and assess local and regional opportunities for achieving those goals.
2. Enact policies and programs to drive investment into targeted green economic activity and increase demand for local green-collar workers.
3. Prepare your green-collar workforce by building green-collar job training partnerships to identify and

meet workforce training needs, and by creating green pathways out of poverty that focus on recruitment, job readiness, job training, and job placement for low-income residents.

4. Leverage your program's success to build political support for new and bolder policies and initiatives.

As you embark on this process, remember that cities can't "job train" their way to a strong green economy. A sustainable, high-quality green-collar jobs program depends, at its core, on linking workers to good, permanent jobs with opportunities for career advancement.

Stimulating Green-Collar Jobs and Opportunity in the New Energy Economy



Los Angeles Apollo Alliance Partners with City to Create Jobs and Opportunities in Green Retrofits

The Los Angeles Apollo Alliance has been making huge strides in its Green Jobs Campaign to retrofit city buildings and create jobs for low income residents. After an initial study of economic trends and opportunities, the campaign kicked off in August of 2006 when over 500 residents came together at a church in South L.A. to applaud Mayor Antonio Villaraigosa, City Council President Eric Garcetti, and local Councilman Herb Wesson as they signed the “Apollo Challenge” and committed to working with the Alliance to shape green workforce and economic development strategies.

Through a combination of door-to-door organizing and policy development with city officials, the L.A. Apollo Alliance is advancing its goals of getting the city to invest in water and energy retrofits for hundreds of city buildings—reducing global warming pollution and saving the city up to \$10 million/year in utility costs—while at the same time establishing a Green Career Ladder Training Program to connect low-income residents to job opportunities created by the investment.

In June 2007, the city council established a City Retrofit Jobs Task Force, including council members, city agencies, and L.A. Apollo Alliance representatives, to coordinate and lead the retrofit work. Task Force members have begun to identify workforce needs, financing mechanisms for the retrofit work, and funding for the training program, which will begin in 2008.

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1 Identify Goals and Assess Opportunities

Decades of work in local economic development have taught us an important lesson: successful strategies build on local priorities, business conditions and economic strengths. Accordingly, the first step in developing a strong local green-collar jobs initiative is to identify your overarching environmental and economic goals, explore ways to strengthen those goals, and then leverage your region’s existing assets to meet those goals.

For instance, if you already have a goal to reduce energy use in city buildings by 20% over the next five years, an important next step is to identify the specific workforce skills necessary to meet your goal, and to evaluate the ability of existing job training programs and job seekers to meet that demand. Ideally, your analysis should also explore potential land use barriers to green-collar job growth, such as the loss of local industrial land and the availability of housing and transportation near job sites.

This assessment does not have to be onerous or expensive. You might simply convene discussions with city staff, and industry and community leaders, to examine your city’s environmental and economic goals, explore ways to link those goals to a green-collar jobs strategy, and identify what green sectors should be targeted in implementing that strategy. Or you might use existing labor market and industry data collected by your local economic development staff to identify local green industries and workforce skills, and strategize about ways to ramp up these programs to meet the needs of an ambitious new clean energy and green-collar job agenda.

Cities with the resources to conduct a more extensive assessment should consider doing so. An excellent example of a comprehensive economic assessment of a region’s green industry and job potential is “Jobs in L.A.’s Green Technology Sector,” prepared in 2006 for the Department of Water and Power and the Workforce Investment Board of the City of Los Angeles.⁴ The assessment looked not only at possible growth industries, but at the job quality and skill level of occupations in those industries.

Whatever your budget and resources, it is important to invite key stakeholders from community, environmental, education, business, and labor groups to help you identify your current strengths and assets, and develop the policies and programs that will expand demand for green-collar workers. Each of these non-governmental stakeholders will bring valuable expertise to the effort, and help build critical public support for your initiative. We recommend establishing a multi-stakeholder task force to spearhead your local green-collar job initiative(s). The task force can support and oversee the development not only of the policy and programs to expand jobs, but also of the partnerships and programs to train workers and provide green job opportunities to disadvantaged residents.

2 Enact Policies and Programs to Stimulate Demand for Green-Collar Workers

Green-collar jobs programs are not simply workforce training initiatives; their success depends on embracing bold policies and programs to expand local demand for green-collar workers. Good public policy can spur demand for new products, encourage investment in new industries (and in the transformation of old industries), and help train local workers to fill new jobs in the green economy. For example, a city's commitment to save money and energy by retrofitting municipal buildings creates demand for local auditors and construction workers, and provides new opportunities for low-income job seekers to enter the building trades. The box on page 7 and the Apollo Alliance's "New Energy for Cities" report referenced in the Resources section describe other policies being used by cities across the country to increase clean energy and energy efficiency and put local people to work.⁵

While the best strategies to expand your green economy must be tailored to the unique circumstances of your city, in general cities should:

Look for creative ways to use public investment, policy mandates, and other incentives to expand the market for green products and services. Funding for your green initiatives can come from a variety of sources, including local bonds and tax assessments, state block grants, and—increasingly—federal grant and loan programs aimed at helping cities develop comprehensive energy and environmental programs. The new Energy Efficiency and Conservation Block Grant Program, proposed by the U.S. Conference of Mayors and included in the 2007 Energy Bill, will allocate funds to state and local governments to reduce fossil fuel emissions and energy use, and achieve greater energy efficiency in construction, transportation and other sectors. Grants can be used for building and home energy conservation programs, energy audits, fuel conservation programs, planning and zoning to promote energy efficiency, and renewable energy installations on government buildings. Congress authorized the program at \$2 billion per year but, at the time we went to print, had still not appropriated the funds.

Encourage firms to meet the demand for new products and services by investing in local businesses and workers. Building a green economy is not just about creating or attracting new business; it is about helping existing businesses take advantage of emerging opportunities in the green sector. Your city can help local firms expand and create new green-collar jobs by connecting them to markets for green products and services. Often a small change—such as posting an online database of local suppliers, or creating a revolving loan fund to help manufacturers retool to create new component parts—can help existing local businesses reach new green markets. Obviously, any effort to identify and exploit these opportunities should focus on "high-road" industries and firms that pay well, have good job growth potential, and are strong contributors to the local economy.

Big Plans for Jobs and Energy Savings by Milwaukee Energy Efficiency

The Center on Wisconsin Strategy, in cooperation with local political, labor, business, and community leaders, is organizing a large-scale private building efficiency project in Milwaukee, WI—Milwaukee Energy Efficiency, or Me2. Me2 aims to retrofit as many of the city's residential, commercial, and institutional buildings as possible, leading to a significant reduction in overall energy use (and corresponding cost savings). It will employ up to \$500 million in private capital, to be paid back over 10 years through energy savings, which will be split between program participants and lenders. The program is designed to be zero cost, in that building occupants will ultimately save more in energy costs than they spend for retrofits. Me2 will train and employ Milwaukee residents of under-served communities to do much of the work, estimated at up to 7,000 person-years for efficiency-measure installation.

For more information, see:
www.cows.org/me2





Connect ongoing environmental and economic development initiatives directly to workforce training programs that provide specific job opportunities and pathways out of poverty for local residents. Your city may already be forging ahead on climate protection and sustainability strategies—like using biofuels in municipal fleets or offering incentives for private sector green building projects—but may not have connected these initiatives to any workforce development or job training programs. Or you may already have a robust job training system in your technical or community colleges, but may not have thought about expanding the system to address jobs in the clean energy economy. In other words, you may have part of the puzzle in place already, and just need to fill in the rest to create a complete green-collar jobs initiative.

Multnomah County, Oregon recently linked its green-collar jobs goals to existing climate protection strategies by incorporating language on green pathways out of poverty into a Request for Proposals (RFP) for what will be Oregon’s largest solar installation.⁶ Similarly, Washington DC is developing a mayoral initiative on green-collar jobs that focuses on the small business and green-collar workforce opportunities being created by several city policies, including a new Green Building Law, a city-wide commitment to reducing carbon emissions, and a host of policies related to storm water management, river restoration, and lead paint abatement.⁷

Sample Policies — Creating Demand for Green-Collar Jobs

Local policies and initiatives can help create demand for green-collar workers in two ways. Policies can commit the government to making a direct investment in activities that will create green jobs. Or public policy can establish incentives or requirements that drive private sector investment into the green economy. Here are just a few examples.

Public sector investments

- Commitments to energy efficiency retrofits of public buildings financed with capital budgets, bonds or performance contracting.
- Commitments to install solar or other renewable energy systems on public buildings financed with capital budgets, bonds or performance contracting.
- Commitments to build new public buildings to green standards.
- Commitments to build transit infrastructure.
- Commitments to convert local government fleets to alternative vehicles or fuels.
- Commitments to plant trees, create green space, and manage storm water with green roofs and other green infrastructure.

- Commitments to purchase green products and services from local providers.

Incentives or requirements to drive private sector investment

- Tax incentives, rebates, reduced fees, or streamlined permitting for private building owners that invest in energy efficiency, renewable energy, or green building.
- Technical assistance or innovative financing for private investment in renewable energy, efficiency, green building, alternative vehicles, or green space.
- Green building codes, energy conservation ordinances, or other requirements for new green buildings or retrofits of existing buildings.
- Land use and infrastructure policies to support green manufacturing companies.

These are just a few examples of the many policy options available to local governments. The Resources section at the back of this document, and the sidebars scattered throughout, offer more examples and details of specific local policies and programs aimed at building a green sector and attracting green-collar jobs.

3

Prepare a Green-Collar Workforce

Once you've identified your goals, assessed your opportunities, and enacted the policies and programs to spur green job growth in your community, the next step is to prepare a green-collar workforce to take advantage of these new job opportunities. Your green-collar jobs initiative should focus on training for jobs that actually exist, and on providing opportunities for low-income residents who have often been excluded from past workforce and economic development programs. To meet both objectives, your green-collar workforce training program needs to have two distinct but related elements: Green-collar jobs training partnerships and a Green Job Corps, or similar program, to create green pathways out of poverty.

As you consider how best to develop both elements, here are several essential points to keep in mind:

Green-collar job training initiatives should be developed in concert with existing workforce and economic development strategies, not as stand-alone, boutique programs.

This is important for a number of reasons. First, the workforce development system in this country is already too fragmented. Many communities already suffer from disconnected programs that lack a strategic and systemic approach to serving their dual customers: industry and workers. Green-collar job training initiatives should be vehicles for increasing the integration and strategic coherence of your workforce programs, not an impetus for further fragmentation.

“Over the next ten years, a majority of our service technicians will be eligible for retirement. Major urban communities provide us with a place to recruit, train and hire the diverse workforce we need to sustain the growth of our business in the new green economy.” —Joy Clarke-Holmes, Director for Local Government and MetroMarkets, Johnson Controls, Inc.

Green-Collar Workers Vital to Washington DC Policy Goals

As the nation's capitol, Washington DC has an important leadership role to play in advancing the transformational potential of green jobs in America. And the city's elected and business leadership is already well attuned to the opportunities at hand. Mayor Fenty is creating a “Green Jobs Advisory Council,” and has tapped the directors of the Departments of Planning, Employment Services, Environment, and Small and Local Business Development, among other city agencies, to play integral roles in the development of his green jobs training policies.

The central policy goals of the DC effort are to develop the capacity of local businesses and the local workforce to capitalize on opportunities created by:

- 1) the new Green Building Law,
- 2) integrated storm water management and green urban infrastructure policies,
- 3) a comprehensive energy policy that promotes energy efficiency and renewable energy installations, and
- 4) a city-wide commitment to reducing carbon emissions to fight climate change.

Together, these policies will expand demand for a variety of green-collar jobs and create vibrant new markets for DC-area businesses. The Government of the District of Columbia is committed to using the existing workforce and economic development systems to ensure that the city uses its resources to support the greening of the city as part of its core operations.

For more information, see: <http://planning.dc.gov/planning/cwp/view,a,1282,q,642589.asp>

Solar Richmond Trains Low-Income Residents

A unique job training program in Richmond, California is moving low-income residents and youth of color into the green economy. As the green-collar jobs idea builds momentum throughout the nation, this program is among the first to “walk the talk” by providing low cost and free solar system installation to low-income homeowners while training low-income residents from the community to do the work.

The Richmond program has three key partners:

- Solar Richmond, a community-based non-profit organization that forged the partnership for this program.
- The Richmond BUILD Program, which is the City of Richmond’s low-income residential assistance and construction training program that is funded through federal, state and foundation grants.
- GRID Alternatives, a non-profit that installs solar systems for low-income homeowners and provides solar training. Solar Richmond is also increasingly working with solar installation companies.

In 2007, a total of 32 Richmond residents completed the special training program—Richmond BUILD’s existing eight-week construction skills training program with an additional two-week solar skills module added by Solar Richmond. All trainees interviewed with potential employers within several weeks of graduation. As of December 2007, all but five program graduates had been hired by local solar and construction firms.

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Second, to meet the expanding demand for green-collar workers, our nation needs to be ready to create green-collar job training programs *throughout the country* and *to scale*. Neither goal will be achievable unless we build our programs on the foundation of the workforce system already in place in cities, large and small, across America.

Third, while making our economy cleaner and more efficient will create some new industries and many new kinds of jobs, much more of it will involve transforming and expanding the industries and jobs we already have. From a workforce development perspective, this means less focus on creating exotic new courses of study, and more emphasis on embedding green curricula into existing courses of study.

Green-collar job workforce efforts should be linked, whenever possible, to existing policies, programs and investments aimed at growing the green economy and combating climate change.

For example, a city might require that green businesses that benefit from municipal tax credits or other incentives participate in green-collar job training partnerships, allocate funds to on-the-job training for current workers transitioning to the new energy economy, or hire workers from a Green Jobs Corps or similar program.

Green-collar job training programs should provide entry points for a range of workers: from those who have been laid off; to underemployed workers struggling to make ends meet in dead-end, minimum-wage jobs; to unemployed men and women trying to get onto some kind of career track; to disconnected young people looking for a point of entry into the mainstream economy. Each of these future workers needs a different kind of support to get started on a career pathway in the green economy. Some need transitional financial aid while training to learn new skills. Others require help learning “soft skills” such as resume-building and interview techniques. A number will benefit from short-term job placements in agencies or industries participating in green-collar job training partnerships. Still others need targeted, comprehensive support to prepare them to succeed in a conventional skills training program.



At the end of the day, the most important thing your green-collar jobs program can provide is access to a family-supporting, career track job. Strong links to employers, union apprenticeship programs, and other career-advancing opportunities must be built into the program from the start so participants don't get all the way through the training program only to find there are no jobs available to them.

The remainder of this section describes the two distinct but essential elements of a comprehensive green-collar workforce training program:

- Green-collar job training partnerships that match industry demand with workforce training, and
- A Green Jobs Corps that provides pathways out of poverty for low-income job seekers.

Green-Collar Job Training Partnerships

As noted above, the best way to prepare your local green-collar workforce is to build partnerships that leverage and align existing workforce training programs and resources toward green-collar job ends. These “green-collar job training partnerships” should include a cross-section of stakeholders, each with a vital role to play:

- **Employers and industry representatives** to help identify current and future labor shortages, design training curricula based on actual workforce needs, and hire people who successfully complete the training.
- **Community-based and workforce development organizations** to help recruit target populations, assess skill levels, identify participant needs and barriers to success, organize support services, deliver training, and evaluate outcomes.
- **Labor unions** to bring ties to employers and connect participants to opportunities in union apprenticeship programs.



Chicago, a Green-Collar Jobs Pioneer

Mayor Richard Daley has declared his intention to transform Chicago into the “the greenest city in America,” and green jobs are a key component of this effort. For the last 12 years, Chicago has administered a green-collar job training program called “GreenCorps Chicago.” Over the course of 9 months, program participants—primarily ex-offenders—receive training in one of four separate tracks: landscaping and urban gardening, computer refurbishing and recycling, household hazardous waste handling, and home weatherization. While receiving training, participants give back by building community gardens or refurbishing computers for underprivileged residents.

The city has also leveraged its purchasing power to spur green-collar job creation. When the City of Chicago committed to purchase solar panels, it attracted two solar power manufacturers to the city. As a result, Chicago has over 2 megawatts of solar generating capacity, more than any U.S. city outside of the Southwest. According to Sadhu Johnston, Chief Environmental Officer for the City of Chicago, the implementation of the city's comprehensive climate action plan could add 5,000 to 10,000 jobs annually in construction, weatherization, engineering, auditing, and other areas. Chicago's programs have also made it a priority to reach the most underprivileged populations in the city—ensuring that ambitious green strategies also provide pathways out of poverty to those in need.

For more information, see: www.cityofchicago.org/environment or <http://www.wrdenvironmental.com/projects/greencorps.html>

Wisconsin Regional Training Partnership

The Wisconsin Regional Training Partnership (WRTP), based in the Milwaukee metropolitan region, is a good model for cities that want to build industry partnerships to create green-collar jobs. WRTP brings employers and labor unions into partnerships in a number of industries, including manufacturing, construction, and health care. These partnerships help to identify labor shortages in the industry and provide a forum for businesses to share information and discuss emerging trends. WRTP itself provides training to help its partnerships meet their labor demands, as well as connections to community-based trainers and union apprenticeship programs. Over 150 employers in the Milwaukee metropolitan region participate in WRTP partnerships, which have trained over 6,000 new and incumbent workers and found good-paying jobs for over 1,400 job-seekers.

Through its tracking and evaluation system, WRTP has found that well trained, highly-skilled workers are more likely to hold onto their jobs for an extended period of time and take pride in their work. Its programs benefit employers by providing better trained employees, resulting in higher quality workers and increased productivity.

For more information, see:
<http://www.wrtp.org/> or
http://www.cows.org/collab_projects_detail.asp?id=3

- **Community colleges and other workforce training institutions** to design curricula and provide skills training, support services, and career guidance.
- **Government agencies** to conduct labor market analyses and provide connections to the existing workforce development infrastructure, program funding, support services, and, in some cases, employment opportunities.

The purpose of green-collar job training partnerships is to:

1. Identify projected job growth and demand for skilled labor (incorporating the projected demand from new public policies and investments in the green economy).
2. Assess the strengths and weaknesses of the current workforce development infrastructure and its ability to meet this demand.
3. Develop new training programs to fill the gap.

To be most effective, green-collar job training partnerships should be built around the industry sectors you have identified as key current or potential contributors to the local green economy. Partnerships can be organized by industry, such as energy efficiency or green building, with workforce strategies for manufacturing, installation, and operation. Or they can be organized horizontally by sector, such as building and construction, with workforce strategies for renewable energy, efficiency, and transit. The important thing is to narrow the focus of each partnership to an individual industry in order to use data, expertise, and resources most efficiently.

Establishing a green-collar jobs training partnership will put your city in a better position to access state and federal resources, like the funding that will be available through the federal Green Jobs Act (GJA) of 2007.⁸ The GJA gives priority to applicants that can leverage additional public and private resources. Thus, public-private partnerships in cities that have already launched their own green jobs initiatives will be better positioned to compete for these federal funds.

Training partnerships are not a new idea; industry partnerships have been built for years in traditional sectors such as manufacturing, construction and healthcare. And in recent years many states—among them Pennsylvania, Washington and Michigan—have reorganized their workforce strategies to



focus specifically on industry sectors that add value to regional economies and provide family-sustaining jobs.⁹ The sector-focused partnership approach we recommend is based on that model and is, in our view, the most strategic way to expand skills and spur new job growth in the green economy.

Create Green Pathways out of Poverty— A Green Jobs Corps

The green economy is growing rapidly, and a number of forward-thinking cities, states, and organizations are responding by launching training programs to build green career ladders to good, family-supporting jobs. But some of the people most in need of these programs are in danger of being left behind. Forty years of disinvestment and neglect, failing public schools, rampant incarceration, and lack of opportunity have eroded the ground below many low-income job seekers. They now find themselves in a hole looking up at the first rung of the green career ladder—and it is out of reach. Green-collar jobs programs that focus specifically on providing pathways out of poverty create “a rung within reach” for these job seekers.

A local Green Jobs Corps is an excellent first step on a green pathway out of poverty for community residents. A Green Job Corps combines job readiness, skills education, and career counseling for people who may not be in a position to succeed in traditional vocational training programs. The Green Jobs Corps is a concept pioneered by members of the Oakland Apollo Alliance and inspired by the success of Chicago’s GreenCorps, as well as numerous apprenticeship preparation and jobs readiness programs in other fields.¹⁰

A Green Jobs Corps brings economic, environmental and social equity goals together in one program, by: providing green employment pathways for people to move from poverty to economic self-sufficiency; educating young people and other community members about environmental issues and the green economy; meeting green-collar workforce demand with the local workers most in need of good jobs; and connecting qualified participants to career training and advanced education opportunities.



Oakland Green Jobs Corps Fights Poverty, Pollution

The Oakland Green Jobs Corps is a job training program that provides a pathway into green careers for Oakland residents with barriers to employment. Beginning in the fall of 2008, it will provide young adults with job training, support, and hands-on work experience so they can independently pursue opportunities in the new energy economy.

The Oakland Green Jobs Corps is a central achievement of the Oakland Apollo Alliance, co-convened by the Ella Baker Center for Human Rights and the International Brotherhood of Electrical Workers Local 595. The Oakland City Council recently approved \$250,000 to fund the Corps, providing a vital pool of seed funding for attracting matching funds over the long-term.

The first three months of the program will provide wrap-around services including basic literacy, life skills and job readiness training, financial management, environmental awareness, and other specialized support services. Trainees will also go through several rotations learning vocational hard skills related to green-collar work in key sectors.

Participants will finish the program with 6-month paid internships in renewable energy, energy efficiency, and green construction projects. Local firms have joined an Oakland Green Employer Council and are playing a critical role by shedding light on their workforce needs and providing internship placement opportunities for Corps trainees.

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The South Bronx— Leading the Way on Green-Collar Jobs

Sustainable South Bronx

Sustainable South Bronx (SSBx) connects poverty alleviation with the environment in ways that benefit both concerns. The organization's Bronx Environmental Stewardship Training program has successfully moved people from welfare into living wage, green-collar jobs for four years, while SSBx concurrently advocates policies that fuel demand for those jobs.

SSBx shares its vision nationwide in a variety of ways to help cities and other interested parties link the green-collar assets in their area with liabilities in storm-water management, public health, law enforcement, education, and quality of life. Balancing those real cost/benefit relationships produces surprising economic benefits, and improves the environment.

For more information, see:
<http://www.ssbx.org/>

The Center for Sustainable Energy

The Center for Sustainable Energy at Bronx Community College promotes the use of renewable and efficient energy technologies in urban communities through education, training, workforce development, research, and project facilitation. The Center offers a variety of training opportunities for those interested in green-collar professions. Recently, the Center conducted training courses on solar or photovoltaic (PV) installation and seminars on geothermal design and electrical code enforcement in New York. The PV courses include the latest photovoltaic technologies,

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A Green Jobs Corps should incorporate the following six elements:

Target Low-Income Populations: The Green Jobs Corps model is designed to address the specific needs, and barriers to employment, of low-income Americans. The federal Green Jobs Act of 2007 targets funds for pathways out of poverty programs to individuals in families with income of less than 200 percent of the poverty threshold (as determined by the Census Bureau), or a self-sufficiency standard for the local area.

Integrate With Overall Green-Collar Jobs

Strategies: Green Jobs Corps programs should be closely tied to local policies and investments designed to grow the green economy. For example, local economic incentives for green businesses might be targeted to employers that agree to work with Green Job Corps participants and graduates. And strong connections to union apprenticeship programs or other long-term skill-building opportunities are critical to provide program participants with solid career opportunities.

Collaborate on Design and Implementation: Green Jobs Corps programs should be designed and implemented in a collaborative process that draws upon the expertise and resources of stakeholders who will support the program, including employers, labor unions, colleges, government, and service- and community-based organizations. Part of establishing a Green Jobs Corps is developing formal agreements among these stakeholders outlining the specific ways they will contribute and cooperate to create a successful program.



Provide Comprehensive Employment Services: Green Jobs Corps programs should use proven approaches to overcome the barriers to employment facing many low-income job seekers. In addition to vocational skills training, programs should incorporate a variety of “wrap-around” services, including:

- Outreach to, and recruitment of, targeted participants.
- Ongoing relationships and case management services, especially for people with special needs like youth or formerly incarcerated individuals.
- Integrated soft skills or “job readiness” training, including completion of GED.
- Contextualized basic skills training to prepare low-skilled job seekers for basic and specialty trades apprenticeship programs.
- Hard skills training in a targeted green industry.
- Employer-recognized certification of acquired skills and experience.
- Supportive infrastructure for program participants, including assistance with childcare, transportation, and tools or equipment purchase.
- Stipends or wages to program participants during training.
- Connections to recognized pre-apprenticeship programs or other formal entry points to union apprenticeship programs.
- Supported employment experience (e.g. transitional jobs) to establish a successful work history.¹¹
- Career counseling and assistance securing independent employment at the end of the program.
- Long-term tracking and follow-up after participants have moved into transitional or long-term jobs.

Combine Public and Private Financing: Green Jobs Corps programs can and should draw support from a variety of funding sources including: local, state, and federal workforce and economic development funds, private sector training investments, savings from investment in energy efficiency retrofits, philanthropic dollars from foundations and corporations, higher education budgets, and unions. Investing in a Green Jobs Corps will advance the broader green-collar jobs agenda at the same time as it helps move people from poverty to self-sufficiency, from being involved in the justice system to being part of the climate solution.

Don't Train for Jobs that Don't Exist: It is a gross disservice and a waste of resources to shepherd people through a jobs program only to have them discover that there are no decent jobs—or ongoing professional training opportunities—waiting for them. Address this issue early on by bringing employers and union apprenticeship coordinators onto your Green Jobs Corps planning team, or into your program as trainers. This step will ensure that job providers are invested in the program from the beginning, and see first-hand how the Green Jobs Corps will provide them with motivated and educated workers.

The diagram on page 18 shows how stakeholders can merge their expertise to create a Green Jobs Corps.

Cooling Roofs and Creating Opportunity in Baltimore

Full-time service can be a stepping-stone in a green pathway out of poverty. Service and conservation corps like Civic Works (see www.civicworks.com) train youth in green construction and weatherization, with the goal of linking them to good jobs in the green economy. B'more Green (see www.civicworks.com/bmgghome.html), one of Civic Works' initiatives, is an innovative job-training program designed to prepare unemployed or underemployed Baltimore residents for entry-level careers in the field of environmental technology. Upon completion, graduates are linked to jobs that build on their training.

Serving in a corps can spark the desire to become an entrepreneur. Danielle Brice started with Civic Works as an AmeriCorps member, receiving a stipend, certification in carpentry and a scholarship. Today she works on a Civic Works team installing “Cool Roofs” on low-income homes, earning over \$11 an hour. Civic Works is one of the only providers of “cool roofing”—a low-cost, effective means of increasing energy efficiency in homes in the City of Baltimore. Danielle now plans to create a green construction company, to train and employ other young people from her community.



New York City's PlaNYC 2030 has Potential to Create Thousands of Green-Collar Jobs

New York City recently launched several long-term sustainability initiatives that will potentially expand citywide green-collar jobs. In April 2007, Mayor Bloomberg released PlaNYC 2030: 127 initiatives with 10 major goals, ranging from a 10 minute walk to a park for all New Yorkers to achieving the cleanest air quality of any big city in America. In the fall of 2007 the City Council's Climate Protection Act codified the goal of reducing citywide greenhouse gas emissions 30% by 2030.

Meeting these goals will create opportunities in many green-collar fields, including building retrofits, urban forestry, renewable energy, and storm water management.

As an advisor to the PlaNYC creation process, the New York City Apollo Alliance pushed for a commitment to retrofit municipal buildings to reduce energy use, lower greenhouse gas emissions and create jobs, resulting in the City's 10-year planned investment of almost \$1 billion dollars in municipal retrofits and new technologies.

During the fall of 2007, Urban Agenda, the convener of the NYC Apollo Alliance, brought more than 50 labor, community and workforce development leaders together in a Jobs Working Group to recommend ways PlaNYC could create good jobs. Building on their recent *Growing Green-Collar Jobs: Energy Efficiency* report, Urban Agenda and NYC Apollo will work with labor unions, workforce development providers, community groups and the city government to

Continued on page 19



4 Build on Successes and Leverage Political Support for New Initiatives

Green-collar jobs initiatives, by their very nature, are collaborative enterprises that engage an unusually diverse array of community stakeholders. This diversity, while often challenging, turns into a powerful political asset when the time comes to leverage political support for your next venture.

One of the keys to leveraging further support is being able to quantify your program's achievements. Tracking progress and measuring success will help you demonstrate the economic, social and environmental benefits of your green-collar jobs strategies. The following indicators can help you track your progress and measure your success:

- **Partners:** Diversity of stakeholder group, as well as level and duration of involvement in your green-collar job training programs.
- **Policy achievements:** Policies and initiatives implemented that link environmental and economic goals; policy goals achieved as a result of your green-collar jobs programs.
- **Jobs:** Number and quality of new green-collar jobs created in your city or region; commitments to employ Green Jobs Corps members.
- **Participants:** Number of participants in green-collar job training programs.
- **Training results:** Percent of training participants now in solid transitional jobs, union apprenticeship programs or long-term employment, or pursuing additional training.
- **Funding:** Amount of new public and private investment in green enterprises in your city; level and duration of financial commitments from public and private sector to the green-collar jobs programs.

Demonstrating the success of your green-collar jobs program will allow you to build political support for future initiatives. For instance, a city that retrofits all municipal buildings with local labor might use the resulting energy savings and political capital to launch a program to help retrofit private buildings, creating more jobs and savings for local residents. Cities can also use local successes to build political support for state and federal energy policies, like a national Renewable Portfolio Standard or a multi-state carbon emissions reduction strategy. Finally, cities can draw on the success of existing green-collar jobs programs to build support for future initiatives to expand local employment through targeted investment in energy efficiency and clean energy. Ultimately, every local energy initiative can and should result in new green-collar jobs.

Chicago Organizations Launch Green-Collar Jobs Initiative

The Chicagoland Green-Collar Jobs Initiative, founded in September 2007, is a collaboration of workforce development, sustainable business, labor, environmental education, community, and green building leaders. The founding organizations include the Local Economic and Employment Development Council, Chicago Sustainable Business Alliance, Wilbur Wright College, Chicago Federation of Labor—Workers Assistance Committee, City of Chicago—Department of Environment, Delta Institute, Midwest Energy Efficiency Alliance, US Green Building Council—Chicago Chapter, and BIG: Blacks in Green.

The primary objectives of the Initiative are to research green-collar jobs and to engage employers, job seekers, and job trainers in the development of workforce programs that will prepare workers for emerging green jobs related to sustainability, natural resource conservation, and environmental technology. Early research indicates that prevalent jobs include: energy raters for homes and commercial buildings; green cleaning and building maintenance staff; alternative energy service providers (solar, wind, geo-thermal); installation/maintenance of storm water management systems (green roof, permeable pavement, rain water collection), urban agriculture (landscaping, farming, apiculture) and green-related services (recycling, retail, manufacturing).

The Initiative recently hosted a Green-Collar Jobs Summit attended by 175 people. Members are now conducting research and outreach to better understand job creation potential, incumbent worker retraining needs, and the capacities of current training programs in the green-collar sector.

In 2009, the Initiative will focus on creating a model program plan for two promising job types. The model will identify key program components including job readiness, participant support services, career counseling, curriculum development, employment, and retention. Strong emphasis will be placed on mapping a career path for these job types, and on providing

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Newark Neighborhood Revitalization Effort Trains Green-Collar Workers

The Lincoln Park Coast Cultural District (LPCCD) is a Community Development Corporation transforming a low-income neighborhood in Newark, NJ into an arts and cultural district. The project will include 300 “green” mixed-income housing units, music festivals, historic restoration projects, and the Museum of African American Music—altogether over one million square feet of development. Sixteen of the buildings will be USGBC LEED-certified, and the entire project will participate in the USGBC LEED-Neighborhood Development pilot program.

Essential to LPCCD’s revitalization mission is the creation of green-collar jobs. LPCCD has partnered with CentrALL, a New Jersey-based business that houses the trades of HVAC, electrical and plumbing in one company. LPCCD and CentrALL are collaborating with the local municipality, workforce development program and vocational high school to form the Green Collar Apprenticeship Program (*Green-CAP*). *Green-CAP*’s goal is to provide 100 residents with a trade license in HVAC, plumbing and electrical. *Green-CAP* participants will receive on-the-job training on LPCCD’s housing development projects and enrollment in the respective trade programs. In addition to the license, *Green-CAP* graduates will receive a green certificate showing they have work experience and training on green construction projects, providing them with the opportunity to join trade unions or open their own green businesses.

For more information, see: <http://www.lpccd.org/>



CONCLUSION

Green jobs are the jobs of the future, jobs that make our country more prosperous, sustainable, and secure. Many American cities are already putting people to work in these jobs, investing in new transit systems, energy efficient buildings, and other projects that improve the quality of life for local residents and make our cities cleaner, greener, and more livable.

To ensure that these jobs are *green-collar jobs*—family-supporting, career-track jobs in green industries—cities need to build on local and regional priorities and strengths, identify and support strategies to spur new green job growth, and develop training programs that include both traditional training partnerships and well-defined pathways out of poverty. This work is exciting. Don't be surprised if your green collar job program becomes the high-profile centerpiece of your city's environmental and economic development agenda. Why? Because every dollar you invest in the program both strengthens your city's middle class and reduces carbon pollution—an enviable return on investment.

We hope this publication inspires you to link your city's environmental goals to your economic development and workforce development goals. At that intersection you will discover an unprecedented opportunity to move your city forward to a more prosperous, inclusive and sustainable future.

Wilbur Wright College Trains Workers in Building Energy Technologies

Wilbur Wright College (one of the City Colleges of Chicago) recently developed, accredited, and began offering a six-course, 21-credit hour Occupational Certificate in Building Energy Technologies (BET).

During curriculum development, a focus group of professionals in the sustainable construction sectors (architects, energy engineers, organized labor, construction contractors, etc.) suggested general training objectives and topics. The intent was to address labor market needs identified within the booming green building field in the Chicagoland area. The initial target student population was incumbent workers in the construction industry and trades. This project was funded through grants from the Illinois Department of Commerce and Economic Opportunity.

The curriculum is unique within the two-year education field in several respects:

- Rather than providing skills training in specific sectors (for example, HVAC optimization or solar panel

Continued on page 19

L.A. Apollo Alliance, continued from page 5

The L.A. Apollo Alliance includes community-based organizations, labor unions, and environmental groups. It is convened and led by SCOPE—a community-based organization in South Los Angeles.

For more information see: www.scopela.org

Solar Richmond, continued from page 9

Solar Richmond continues to coordinate regular trainings and facilitate job placement for graduates. In the coming years Solar Richmond plans to expand its program. Next year, with increased funding, green building techniques will be incorporated throughout the nine week program.

“Putting panels on a roof—only good comes from it,” says Michele McGeoy, founder and director of Solar Richmond, which has a goal of producing 5 megawatts of clean, renewable solar power in the city by 2010.

For more information, see: <http://www.solarrichmond.org/>

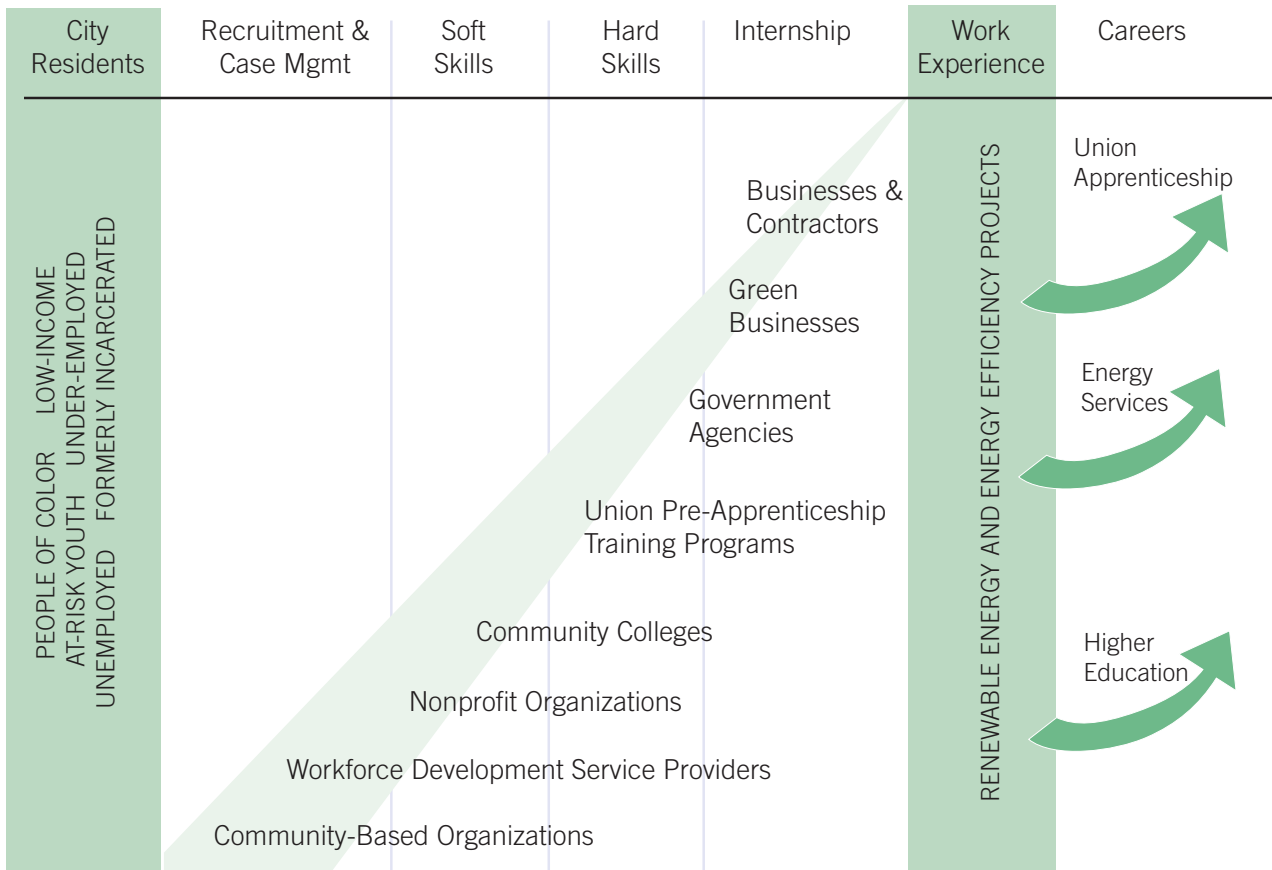
Oakland, continued from page 12

The Ella Baker Center and the Oakland Apollo Alliance have been champions of the program, but they will *not* run or house the Oakland Green Jobs Corps program. The \$250,000 seed funding from the City will be awarded competitively through an RFP (Request for Proposals), thus identifying the best qualified people in Oakland to run the program. Ideally, this will result in a partnership of organizations that includes a job training program, a community college, employers, labor unions, and other institutions that together can provide the complete Oakland Green Jobs Corps curriculum and pathway.

For more information, see: <http://www.ellabakercenter.org/gcjc>

Green Jobs Corps: Connect the stakeholders to create pathways out of poverty

A conceptual diagram—programs will vary.



South Bronx, continued from page 13

cost analysis, sizing, and building/zoning code issues, as well as a solar installation site visit and a hands-on lab with PV and inverter technology, and mounting methods. The courses are open to the general public, electricians, novice installers and engineers. For graduates of the Center's 40 hour basic PV course or other PV programs, the Center offers the exam for the North American Board of Certified Energy Practitioners.

For more information, see:
<http://csebcc.org>.

Youth Ministries for Peace and Justice

Youth Ministries for Peace and Justice (YMPJ), a community-based environmental justice organization, works to rebuild the neighborhoods of Bronx River and Soundview/Bruckner in the South Bronx by preparing young people to become prophetic voices for peace and justice. YMPJ offers Greenternships to graduates of their youth organizing program. Greenternships provide training and apprenticeships that bridge the critical gap between YMPJ's youth programs and the job market. YMPJ specifically focuses on green-collar public- and private-sector career tracks in stormwater management, streetscape beautification, urban forestry, urban planning, and gardening. For instance, a Youth Organizer receiving YMPJ's Citizen Street Tree Pruner certification could further pursue this career track to a well-paying entry-level job with NYC's Parks Department through a Greenternship.



PLaNYC, continued from page 15

create a Green-Collar Jobs Planning Commission in 2008. A key objective of the Planning Commission is to develop strategies to ensure that New York City's sustainability efforts create good green-collar jobs, accessible to all New Yorkers. Critical to this effort will be strengthening existing green-collar job training providers such as the Association for Energy Affordability, Center for Sustainable Energy at the Bronx Community College, Community Environmental Center, Sustainable South Bronx, and Youth Ministries for Peace and Justice.

For more on PLaNYC 2030, see <http://www.nyc.gov/html/planyc2030/html/home/home.shtml>

For more on the NYC Apollo Alliance, see <http://www.urbanagenda.org/>

Chicago, continued from page 16

the training, credentials and work experience necessary for participants to advance along that path. The Initiative also plans to create an on-line Resource Hub, featuring information about potential jobs, training programs and potential employees.

For more information, see:
www.greencollarchicago.org

Wilbur Wright, continued from page 17

installation), the courses adopt an integrated whole-building energy systems approach.

- While renewable energy technologies are covered in the classes, the major portion of the coursework is focused on energy efficiency topics, which are of greater concern in the current building market.
- Two of the six classes are Building Operator Certification® courses, which provide the students with a supplemental trade certification upon completion.
- The curriculum addresses LEED®, Energy Star®, the Home Energy Rating System®, building commissioning, and other programs in use in the building construction industry.
- Classes are offered at night, and are taught by respected practitioners who continue to work full-time in the field.
- Most of the classes include scheduled experiential learning opportunities for the students to see the energy efficiency, sustainable construction, and renewable energy technologies in practice.

The initial cohort of 14 students, many of whom were incumbent workers in the building construction and operation industries, graduated from the program in December 2007. A preliminary survey of these students indicates that new career opportunities (including enhanced involvement in green building projects and internal promotions) are resulting from completion of the curriculum.

For more information on the program, including individual course descriptions, see: <http://wright.ccc.edu/departments/etp/build.asp>



RESOURCES

The co-authors of this report are collaborating to create an online green-collar jobs clearinghouse that will offer leading program models, examples, and resources to a wide variety of actors interested in developing independent programs. Please visit: www.greenforall.org/resources.

Reports and Publications

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UCLA School of Public Affairs. *Policy Brief on Green Sector*. June 2006. http://repositories.cdlib.org/lewis/pb/Policy_Brief_06-06/

Urban Agenda for the NYC Apollo Alliance. *Growing Green Collar Jobs: Energy Efficiency*. October 2007. <http://www.urbanagenda.org/projects.htm>

Websites and Organizations

Green Jobs and Service Collaborative—Online Clearinghouse: <http://www.greenforall.org/resources>

Apollo Alliance: www.apolloalliance.org

Blue Green Alliance <http://www.bluegreenalliance.org/>

Center for American Progress: www.americanprogress.org

Center on Wisconsin Strategy: www.cows.org

Ella Baker Center for Human Rights: www.ellabakercenter.org

Green for All: www.greenforall.org

ICLEI: Local Governments for Sustainability: www.iclei.org/

The Workforce Alliance: www.workforcealliance.org

Transitional Jobs Network: <http://transitionaljobs.net>

U.S. Conference of Mayors, Climate Protection Center: <http://usmayors.org/climateprotection/>

Wisconsin Regional Training Partnership: www.wrtp.org/



Endnotes

1. See Roger Bezdek, *Renewable Energy and Energy Efficiency: Drivers for the 21st Century* (American Solar Energy Society, 2007), available at <http://www.ases.org/ASES-JobsReport-Final.pdf>
2. See R. Margolis and J. Zuboy, *Nontechnical Barriers to Solar Energy Use: Review of Recent Literature* (National Renewable Energy Laboratory, 2006).
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6. It is worth noting that Multnomah County already required contractors to pay prevailing wages. See the entire Portland RFP here: http://www2.co.multnomah.or.us/County_Management/CPCA/current%20bids/9364p.pdf
7. For more on the DC initiative see: http://www.americanprogress.org/issues/2007/09/green_jobs.html
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10. See the Ella Baker Center for Human Rights website for more info on the Oakland Green Jobs Corps: <http://ellabakercenter.org/page.php?pageid=26&contentid=267>. See Chicago's Green Corps program at: <http://www.wrdenvironmental.com/projects/greencorps.html>
11. For more about transitional jobs see the National Transitional Jobs Network website at <http://transitionaljobs.net>.

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“The core benefit of green job programs is that they present urban centers with an incredible opportunity to address the unfinished business of America. This comprehensive report raises the level of discourse on how cities go forward in addressing issues of poverty and climate change simultaneously.”

—*City of Oakland Mayor Ronald V. Dellums*

“Three years ago, when the Kyoto Protocol went into effect, I called on mayors across this country to join with Seattle in taking local action on global warming. Today, over 800 cities have signed the U.S. Mayors Climate Protection Agreement. More than 78 million people, one in four Americans, now live in cities that are making a difference by reducing their emissions. “This is a remarkable achievement and a testament to the power of an idea: that cities can and will make a difference in climate change.

“Now something innovative and amazing is happening in cities across our country. By embracing our need to save the planet, we are creating new jobs here at home. *Green-Collar Jobs in America’s Cities* is a timely publication that shows city leaders how to connect the biggest economic opportunity of our lifetime to the lives of our city residents.”

—*City of Seattle Mayor Greg Nickels*

“The emerging green jobs movement—and the empowering green collar jobs concept—has begun to take hold in communities across the country. This Green-Collar Jobs report highlights the vital next step: demonstrating through specific individual cases how this can become a key aspect of local and regional economic development efforts. This report is vitally needed to help spread the best practices and lessons from the emerging trend to the entire country.”

—*Professor Dan Kammen, Founding Director, Renewable and Appropriate Energy Laboratory University of California, Berkeley*

“Good green-collar job programs can connect the next generation of our cities’ workers to family-supporting jobs in union trades and high-road green businesses. In creating these programs, the labor movement and low-income communities have an incredible opportunity to collaborate together on a path to shared prosperity. This report will be an enormously useful tool to the labor-community partnerships that we work with in cities around the country.”

—*Leslie Moody, Executive Director,
The Partnership for Working Families*

