

# SKILLWORKS GREEN COLLAR CAREER PATHWAYS INITIATIVE

## FIRST ANNUAL EVALUATION

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### Introduction

In early 2009, SkillWorks launched a Green Collar Career Pathways Initiative (SkillWorks Green Jobs Initiative) with support from the Barr Foundation, the Garfield Foundation, the Surdna Foundation, and the Chorus Foundation, which was specifically targeted to support SkillWorks' efforts within the green sector. Building pathways to green collar jobs aligns well with the SkillWorks model of creating opportunities for low-income, low-skilled adults to access jobs in sectors of regional importance. Having built a base of knowledge, expertise, and relationships within that arena over the previous five years, SkillWorks was a natural vehicle for a new group of investors seeking to extend their environmentally focused portfolios into green jobs. Similar to the overall SkillWorks Initiative, SkillWorks Green Jobs Initiative combines support for workforce training, capacity building, and public advocacy but is applying those three tools differently and in different proportions in recognition that the stage of the development of the sector requires different types of intervention.

SkillWorks recently completed the first of what is anticipated to be a three-year initiative in the green economy and asked Mt. Auburn Associates to conduct a formative evaluation of Year 1. The evaluation seeks to clarify the theory of change held by key stakeholders, describe the baseline of activity around green collar career pathways in Boston, summarize SkillWorks' outputs and outcomes to date, and offer some summary findings and recommendations on the future direction.

Mt. Auburn reached out to a large number of stakeholders so that a wide degree of perspectives would contribute to the process. This document presents a summary of the findings based on both interviews and a review of relevant documents provided by SkillWorks and other stakeholders at the city and state levels as well as a literature review of national publications that are shaping the discussion on green jobs.

### Theory of Change

The ultimate goal of SkillWorks Green Jobs Initiative does not appear to differ from the overall SkillWorks Initiative. Funders of SkillWorks Green Jobs Initiative were supportive of the overall SkillWorks goal statement developed this summer, which reads:

*Significantly more low-income, low-skilled workers in the greater Boston region have the opportunity to gain the skills needed to enter and advance in careers with family-sustaining wages. Opportunities are sustained beyond the tenure of SkillWorks funding.*

While the goal remains the same over the long-term, the short-term and even intermediate-term approaches to achieve that goal differ due to the stage of development of the green

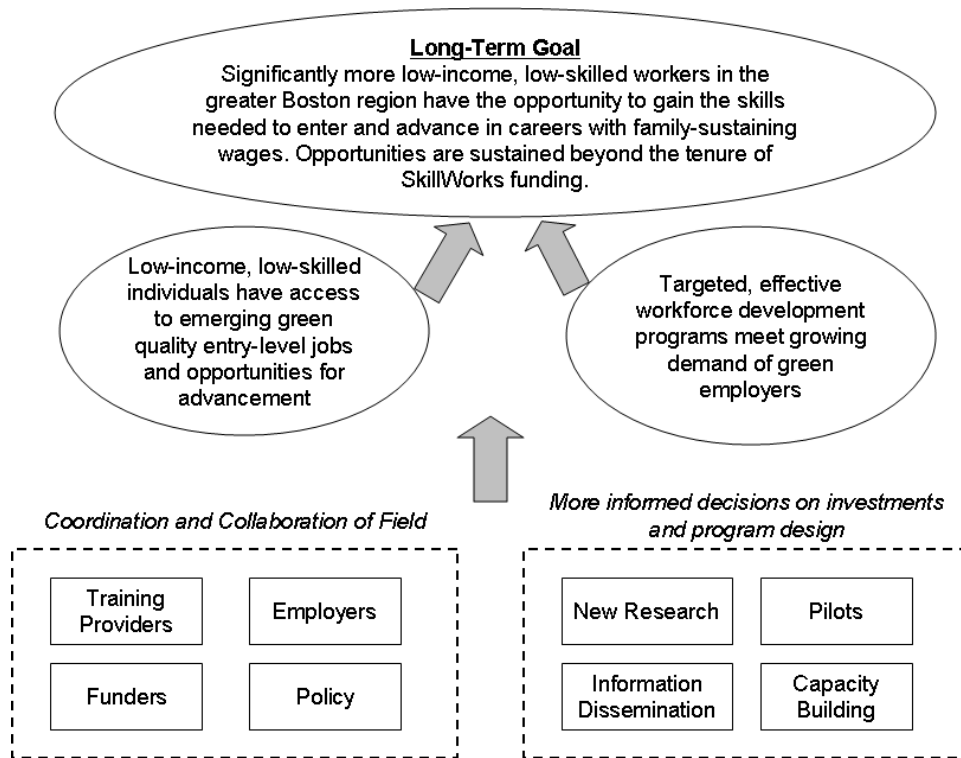
industry sectors. As a result, the SkillWorks Green Jobs Initiative initially articulated two more specific goals:

1. Support emerging workforce development efforts in green industries.
2. Ensure access to green collar career pathways by lower-skilled, lower-income adults.

At the outset of SkillWorks Green Jobs Initiative, three broad approaches were laid out to achieve these goals:

1. Coordinate funders interested in green collar workforce development by developing a common set of goals, mapping current investments, and identifying opportunities for further investment.
2. Expand the base of knowledge of green jobs by gathering existing research, identifying information gaps, and funding research to fill gaps.
3. Foster coordination and collaboration among green organizations and workforce development organizations by convening organizations to share information from funders and employers, sponsoring capacity building activities, and developing a coordinated policy agenda.

The cornerstone of this initial thinking was the funding of a workforce partnership, similar to those funded in other sectors by SkillWorks, which would function as an intermediary in the sector with a focus on training for low-income residents from the greater Boston area. However, as SkillWorks engaged stakeholders and learned more about the current state of the green jobs sector, it became clear that a full workforce partnership, as had been funded in more mature sectors such as hospitality and healthcare, was not feasible given the capacity of training providers, the scale of employers, and the current demand for workers. Instead of a single large workforce partnership being the focus of the SkillWorks Green Jobs Initiative effort, SkillWorks staff now envision funding smaller pilot efforts. While any plans to fund a large-scale workforce partnership were tabled, the basic theory of change remained in place. Based on interviews with funders, staff, key stakeholders, and a review of SkillWorks Green Jobs Initiative documents, the following diagram represents the goals and intended outcomes associated with the effort.



The approaches that have been pursued or discussed for the future seem to fall into two major strategic approaches:

1. Strategies that improve coordination and collaboration of the field. This was initially discussed primarily around coordination of community-based training providers and funders. In actuality, the activities in 2009 and plans for 2010 suggest that SkillWorks will target employers and policy advocates for coordination and collaboration as well, either directly or indirectly, through grants to other conveners.
2. Strategies that lead to more informed decisions on investments and program design. While research is one tool in this area, SkillWorks is also using information dissemination, pilot/seed funding, and capacity-building grants to improve the information available to the field

## Baseline

To evaluate SkillWorks Green Jobs Initiative's progress, it is important to understand the baseline of activity from which the initiative started. The baseline examines the varied stakeholders focusing primarily on those with greatest relevance to the weatherization and energy efficiency industry since that green component has received the most attention from SkillWorks in the past year. This undertaking is challenging given the rapidly changing dynamics of the industry. Change has come most rapidly in the funding and programmatic environment. That landscape has changed not only since SkillWorks undertook its initiative

in early 2009, it has, in fact, changed in the matter of months in which the evaluation baseline research occurred.

### **What is a green job?**

Green jobs or green collar career pathways are really catch-all phrases that touch a wide variety of industries and occupations. The phrases are quite useful as communication tools to share the potential scale and breadth of the economic development and workforce development opportunities linked to clean energy, environmental conservation, and environmental protection. From the standpoint of developing targeted workforce development programs, the all-encompassing definition of green collar jobs is too ambiguous to be useful. Some narrow the definition of green jobs to efficiency, renewables, and alternative transportation and fuels, while others embrace a wider array of industries such as wastewater treatment, solid waste management, remediation and brownfield redevelopment, and resource recovery. Even the more narrow definition that focuses specifically on jobs related to the efficiency and clean energy is broad enough that it is difficult to apply as it can include everything from the manufacture of solar panels or wind turbines to green architecture to weatherization services.

A key national contribution to defining green jobs in 2009 was the publication, *Greening of the World of Work: Implications for O\*NET-SOC and New and Emerging Occupations*,<sup>1</sup> which provided the following definition:

*The green economy encompasses the economic activity related to reducing the use of fossil fuels, decreasing pollution and greenhouse gas emissions, increasing the efficiency of energy usage, recycling materials and developing and adopting renewable sources of energy.*

The study then breaks the green economy into 12 green sectors: renewable energy generation; energy efficiency; energy trading; research, design, and consulting; agriculture and forestry; recycling and waste reduction; transportation; green construction; energy and carbon capture; environmental protection; manufacturing; governmental and regulatory.

The O\*Net publication also sought to clarify that the greening of the economy does not necessarily result in vast numbers of new jobs, particularly new type of jobs. The publication makes some key distinctions in the kinds of jobs (occupations) within the green economy:

- **Green Increased Demand Occupations:** These are existing occupations that are in greater demand as a result of the growth of the green economy although the basic activities involved in the occupation remain unchanged.
- **Green Enhanced Skills Occupations:** These are existing occupations in which the tasks, skills, knowledge, and external elements such as credentials, have been altered in response to the greening of the economy.

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<sup>1</sup> Dierdoff, Erich C., Jennifer J. Norton, Donald W. Drewes, Christina M. Kroustalis, David Rivkin, and Phil Lewis. 2009. *Greening of the World of Work: Implications for O\*NET-SOC and New and Emerging Occupations*. National Center for O\*NET Development.

- **Green New and Emerging Occupations:** These are unique work or worker requirements that warrant the creation of an entirely new occupational category.

It appears that, over time, the O\*NET study will help to clarify the discussion about the definition of green jobs, but whenever a discussion is had at the level of “green,” there is sure to be some degree of confusion about what component is specifically being addressed.

Given the lingering ambiguity at the national level about what constitutes a green job, it should not be surprising that SkillWorks has not put forth a clear and concise definition of green collar career pathways. While some believe that a clear definition of green jobs and/or green collar career pathways should be an important output of SkillWorks Green Jobs Initiative, others feel that, at a minimum, the SkillWorks Green Jobs Initiative, or any other organization operating in this sector, should be quite clear about what sub-sector of green is the focus of any activity.

The SkillWorks Green Jobs Initiative did, in fact, focus on a specific sub-sector of the green economy for its first year — energy efficiency and weatherization. This may be more of a de facto focus than it was intentional. SkillWorks, along with many other stakeholders interested in green jobs, focused heavily on energy efficiency and weatherization in 2009 in response to the federal American Recovery and Reinvestment Act (ARRA) funding opportunities in that area. SkillWorks Green Jobs Initiative staff have expressed an interest in exploring, through focused research projects, what opportunities exist in water and waste management and transportation.

## **Employers**

Since SkillWorks and most Boston area stakeholders have focused heavily this year on the green sub-sector of energy efficiency and weatherization, the baseline characterization of employers will focus on that industry as well. It is worth noting that the baseline of employers would look very different depending on what green industry was of interest.

The energy efficiency sector has been described as virtually a “cottage industry” characterized by a large number of small firms. A recent survey of Massachusetts energy efficiency firms found that 54 percent of all firms in energy efficiency employ fewer than 10 people and 85 percent employ fewer than 100<sup>2</sup>. Among the small firms is one dominant employer, Conservation Services Group (CSG). CSG started out 16 years ago with one office in Boston, but has grown to more than 400 employees nationwide.

Beyond CSG, many weatherization contractors can be quite small, perhaps three-person teams. Not surprisingly these firms do not have human resources departments, do not have sophisticated forecasts of future employment needs, often rely on informal hiring networks through friends and relatives, and are largely unaware of public and community-based workforce training systems. The businesses, particularly startups, are often fairly low-margin operations, cash-strapped, and struggling to pay for the equipment needed at startup.

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<sup>2</sup> Goldman, Charles A., Jane S. Peters, Nathaniel Albers, Elizabeth Stuart, and Merrina C. Fuller. (2010) *Energy Efficiency Services Sector: Workforce Size, Expectation for Growth, and Training Needs*.

Demand for energy efficiency services (which, in turn, drives job openings) is driven by federal, state, and local government policies. Whether public funds actually fund the energy efficiency work or whether the government action sets the utilities' approach to energy efficiency, which, in turn, generates increased financial support for energy efficiency, the bottom line is that public policy can significantly impact the demand for services.

Demand for services for individual contractors will also depend on the contractors' ability to get on certain lists as approved vendors for publicly-funded work. Individual consumers are often far less involved in selecting their contractor. Community action programs (CAPs) develop their own list of approved vendors to perform Weatherization Assistance Program (WAP) work. The cities will select approved vendors to perform weatherization work for the programs they oversee. The utilities also determine which contractors are approved to provide energy efficiency services through their program or, in some cases, CSG, as the preferred vendor for utilities, will select which subcontractors it approves. One stakeholder described the energy efficiency industry as follows:

*The employer piece is different in this field than in others. This field is different in that it is regulated. Utilities determine who the players are. Employers don't feel that they have equal access. You have one kind of giant — the elephant in the room. Other smaller employers don't know how to deal with it. They have been waiting for the utility plans regarding whether CSG is the only company that can do energy audits under the rebate plan or whether other companies will be able to do that. They honestly don't know if they are going to need new workers."*

The role of policy and regulation in this sector can be a challenge to the individual businesses, but it offers a more unusual avenue for ensuring access to low-income, low-skilled workers. For instance, it is not uncommon within this sector to have local hiring requirements, though they are sometimes difficult to enforce.

## **Employment**

Neither green job growth generally, nor energy efficiency job growth specifically, matched the high expectations set by politicians and policy advocacy organizations in 2009. While SkillWorks Green Collar Career Pathways Initiative launched at a time when expectations were still quite high for immediate job growth, the experience over the past year dampened expectations somewhat. Stakeholders appear more realistic about the number of job openings, the types of jobs that will be available, and the challenges low-income, low-skilled individuals will face in accessing those jobs.

Several factors contributed to the slower than expected growth:

- Job growth generally slowed as a result of the deep economic downturn. Homeowners were less willing to spend on energy efficiency in this environment. Limited access to capital hurt small contractors in need of loans to buy equipment.

- Energy efficiency contractors had substantial room to meet any increased demand by increasing productivity of existing workers before adding new employees.
- Not all green jobs are technician jobs that the SkillWorks target population can be trained for in a relatively short time. So, even when job growth projections are made, it is important to shrink those figures to the portion of jobs relevant to the targeted workforce. The New England Clean Energy Council’s study found that less than half of the total residential energy efficiency workforce, 46 percent, were devoted to auditing and weatherization/insulation field work.
- Low-income, low-skilled workers faced more competition for the emerging green jobs as experienced trades workers were left unemployed given the dramatic drop in construction employment.
- There is a growing realization that the growth of the green economy does not always translate into new jobs. There will be a “greening” of many existing jobs although the balance between the two is a matter of ongoing research for labor economists and forecasters.

The mismatch between the hype and the reality has left some within the workforce development system cynical about the potential employment opportunities within the green sector. The disenchantment is heightened by the rhetoric of speaking about green jobs as opposed to specific jobs with specific skill needs attached. As one stakeholder put it when interviewed:

*When someone walks in and says, “I’m unemployed, but I want one of those green jobs I’m hearing about,” I’m not sure what to say. I’m not clear what those green jobs are. There has been a lot of hype and mythmaking. It is hard to cut through that. What are the actual jobs and the actual job descriptions? That is what we should try to prepare people for. ... A lot of the problem with hype has been an issue of timing. Long-term, there will be new jobs and greener existing jobs. We started talking about green jobs in 2007, but it was hype. When recession hit, huge job growth didn’t happen. Maybe we’ll see it in 2011.*

While most still believe that the various industries that encompass the green economy will drive new job growth in future years, there is a stronger consensus to focus on the specific occupations and to exercise caution to scale the workforce development response to match the pace of job openings.

### **Funding Environment**

The SkillWorks Green Jobs Initiative set out as a key goal of the initiative to coordinate funders that invest in or who are interested in investing in green-collar workforce development. Interviews conducted for this evaluation to understand what the existing level of coordination was among funders suggest that the baseline level of coordination among funders is low. Public and private funders active in the state are aware of each other and often cross paths at various events. They are relatively aware of the kinds of investments being made by others, but there does not appear to be any proactive attempt to coordinate efforts.

The level of coordination or lack thereof at the regional or state levels was only exacerbated by the massive influx of federal funds into green jobs in 2009. The uncertainty of the form that federal funding would take and ultimately what organizations would be the beneficiaries appears to have dominated discussions and kept the focus away from creating a coordinated funding strategy on the local level.

In addition to SkillWorks' efforts in this area in the past year, the Barr Foundation convened state and private funders working on energy efficiency, clean energy, and green jobs in October 2009 to share information and foster new relationships. However, as a one-time event in a rapidly changing sector, this forum, while helpful and interesting, does not appear to have led to any lasting mechanisms for coordination or collaboration.

## Policy

Public policy related to green jobs is multi-faceted. Public policy stimulates demand in this sector; it supports the training for jobs training; and, finally, it can influence the quality of the green jobs created and who the likely beneficiaries are of green job growth.

Federal, state, and local policies all play a role. At all levels, the primary emphasis to date has been on stimulating demand and job training. There is less consensus around how to ensure that the jobs created through these efforts are good quality jobs or whether mandates should be used to ensure that specific populations benefit from the anticipated job growth.

Federally, ARRA funding, such as increases in WAP funding for low-income households and Energy Efficiency Community Development Block Grants, are increasing demand. Stimulus investments in green job training have also had a dramatic impact in the past year. Appendix A lists recent federal grants of relevance to the SkillWorks Green Jobs Initiative.

At the state level, several pieces of legislation passed in recent years have propelled Massachusetts to a position of national prominence in terms of encouraging energy efficiency. Two pieces of legislation in particular are of relevance to SkillWorks Green Jobs Initiative: the *Green Communities Act of 2008* and the *Green Jobs Act of 2008*.

The *Green Communities Act of 2008* reformed the state's electricity marketplace and is expected to have an enormous impact on the demand for energy efficiency services statewide over the next three years. The act required that the state's investor-owned electric and gas utilities prepare energy efficiency plans that secure for their customers all available energy efficiency and demand reduction resources that cost less than new energy supply. The law will triple the level of utility-driven efficiency efforts totaling almost \$450 million over three years, which will likely make Massachusetts first in the nation in terms of per capita investment in energy efficiency.

The *Green Jobs Act* created the Massachusetts Clean Energy Center (MassCEC) to support research and development, entrepreneurship, and workforce development. MassCEC has launched three major initiatives since the spring of 2009 providing roughly \$4.5 million in workforce development funding to the clean energy sector in Massachusetts, although the

Boston area has not been a major beneficiary of those funds. MassCEC's workforce investments relevant to the Boston area are described in Appendix A.

The city of Boston plays an influential role as well. While the city has long played a role in this area, primarily through the Office of Environmental and Energy Services, in 2009, the city announced its major new initiative to achieve its energy efficiency and alternative energy goals: Renew Boston. The primary funding to support Renew Boston was an award of \$6.5 million in Energy Efficiency and Conservation Block Grants, part of federal ARRA funds. The city plans to leverage federal funding with \$20 million from existing utility programs and by accessing private sector resources as well. Renew Boston is intended to be a one-stop shop for Boston residents and businesses interested in energy efficiency and alternative energy. With regard to green jobs, Renew Boston hopes to create a relatively modest number of quality green jobs, 100 in total.

### **Training Providers**

*It's a little like the Wild West out there. — Training provider*

Green collar jobs have experienced an unusual influx of funds in the past year. For a workforce development system that is chronically underfunded, it is not surprising that the funds for workforce development related to green jobs have been of great interest to many stakeholders. Even those who have their doubts about the sector's employment prospects have stated that if there is a funding opportunity that may help low-income, low-skilled workers, they will go for it with the belief that they can find a way to make it work. The result is a relatively uncoordinated response to the needs of the sector. One training provider described:

*There is no coordination at all. Programs keep popping up without any coordination. We are not working together. I feel bad for employers. Money is flowing into job training and we are all jumping. Usually we have respect for each others' bailiwicks. ...Here no one has staked out their territory yet. In this field, we are all going after the same employers, participants, and jobs.*

Not only is coordination a challenge in this environment, but it also heightens the risk that training efforts become more responsive to the agenda of the funding source than to the true needs of employers. This is a sector where there is a real risk that training is pushed on the sector as opposed to responding to a pull for trained workers from employers. One stakeholder interviewed for this evaluation with strong ties to green employers expressed concern about the frequency with which employers are being contacted to sign memoranda of understanding (MOUs) with training providers without the providers having the more substantive discussion with them about what employers actually need or why they should participate in programs aimed at this population.

The tremendous interest in green jobs has led to the creation of a variety of training programs that are not well suited to the needs of the SkillWorks population. For instance, short-term workshops and seminars are springing up in hotels, preparing people for industry certification

tests, such as Building Performance Institute's Building Analyst, but not necessarily providing them the occupational skills needed to gain employment despite their certification. CSG-sponsored boot camps may be more credible but they pose similar challenges for low-skilled workers looking to gain entry to the field. The Weatherization Worker Boot Camps have been useful to help experienced contractors and some unemployed construction workers looking to get work through utility-funded energy efficiency programs or to get on the approved list of contractors through the community action agencies. The boot camps are not well-suited to help low-skilled individuals without significant construction experience and related occupational skills.

Community colleges will clearly play an integral role in preparing people for jobs in the green sector. Community colleges have received significant support from the Clean Energy Center to upgrade and standardize their energy efficiency curriculum, most notably the MassGREEN Initiative led by Springfield Technical Community College with participation from 15 other community colleges (including Roxbury Community College). The initiative is developing energy efficiency workforce training courses from basic to advanced weatherization skills training as well as assisting entrepreneurs who might be interested in starting their own weatherization contracting business. However, as one stakeholder interviewed for this evaluation described, green collar career pathways simply puts a green lens on the same challenges community colleges pose in the workforce development system more generally. While the community colleges have the infrastructure that makes them an attractive focal point for the technical training needed to get an energy efficiency job, community colleges have multiple missions and diverse student populations, and often lack the resources to provide support needed by low-income, low-skilled workers. Community-based organizations (CBOs) are far more attuned to the needs of the SkillWorks population, but, as MassGREEN's standardized curriculum is implemented statewide, the CBOs' role in preparing the SkillWorks population for weatherization jobs has not been fully defined.

A final area of concern with regard to the current training environment related to green jobs is perhaps an overemphasis in the training community on "hard" skills where some employers are expressing a stronger concern about some of the "soft" skills. As one employer described:

*It is not that difficult to master the skills. We can train them. What we want is growth potential. We are trying to provide career pathways. In order to move to next level, you need to be able to interact with customers.*

While feedback from employers was not an intensive part of the research conducted for this evaluation, anecdotal information suggests that some training programs are not placing sufficient emphasis on basic job readiness and employability skills, basic education, customer service, and communication skills. Employers suggested that these skills are particularly necessary in an industry in which employees regularly enter customers' homes and their professionalism is continually observed by the customer who needs to feel comfortable with their presence in his or her home.

## Information Gaps

Since expanding the knowledge base with respect to green jobs was a key initial goal of SkillWorks Green Jobs Initiative, this baseline report will also address, in broad strokes, the level of information available to inform funders, service delivery organizations, and policymakers.

Discussions with key stakeholders, combined with an extensive baseline literature review, suggest that enormous progress has been made in the past year in terms of the information available to support the sector. If anything, the sector is suffering from information overload, particularly with regard to energy efficiency. The proliferation of research studies and reports can make it difficult to stay abreast of key contributions to the field. Information dissemination is a challenge. However, there are national platforms that have been developed that should aid in information dissemination. The recently launched Green Jobs Community of Practice on Workforce<sup>3</sup> One (an online information sharing platform for workforce development professionals sponsored by the U.S. Department of Labor/Employment and Training Administration) can hopefully serve as a clearinghouse nationally for the growing body of information related to green job development and training. Green for All's Communities of Practice also has an extensive repository of resources and also emphasizes discussion forums and conference calls among relevant practitioners as other important dissemination tools.

Community-based organizations are capitalizing on the growing body of research related to green jobs as well as investing in their own research to develop a sophisticated understanding of workforce development needs related to energy efficiency. One stakeholder interviewed who has conducted green jobs workshops at the Commonwealth Workforce Coalition (CWC) conference for the past few years noted the enormous growth in the CBO community's understanding and sophistication in the past year.

## Key Baseline Findings

### ➡ **The banner of “green collar” jobs is too broad to be useful in most settings.**

Rather than focus on reaching consensus on what the range of occupations and industries is that could possibly fall under the banner of green collar jobs, any effort in this sector needs to continually clarify what component of green collar work is the topic of conversation.

### ➡ **While the cart may have been put before the horse, the horse is coming. Job growth in energy efficiency is happening — if not as dramatically as some had hoped. The groundwork laid in 2009 combined with a sustained ongoing effort will lead to benefits for individuals and lessons for the field.**

The high expectations for job growth in energy efficiency have been tempered with more realistic predictions based on sound analysis. Despite the dramatic rates of growth in percentages terms, the absolute numbers of jobs in energy efficiency are relatively small particularly when one drills down to the occupations that are likely to be filled by the SkillWorks target population of low-income, low-skilled individuals. As funders, both public

and private, have realized the disconnect between the hype and reality, there is a concern that support may swing away from building the workforce systems to support the needs of these growing employers. Yet, the New England Clean Energy Council's projections suggest that 300 insulation installers and air sealers will be added in 2010 and 2011 in Massachusetts. If those are distributed by population density, roughly half of those jobs, 150 positions, will be in the greater Boston region.

While job growth in energy efficiency will likely slow over the longer-term horizon, an investment now in thinking about the quality of those jobs and the career paths for advancement will create the churn in the entry-level positions to make energy efficiency a point of entry into the construction industry for low-income, low-skilled workers over the longer-term. Furthermore, beyond the placement of specific individuals, the lessons learned in creating workforce development programs for this sector may offer insights into working with other green and non-green industries. The characteristics of the sector do not easily fit a sector-based employer partnership model. Working with these smaller employers with less developed human resources departments in which individual career paths will often involve advancement by changing employers can provide some important learning for how the workforce system can work with a different types of sectors, green or not.

**➔ There is much work to be done with employers, but it is unclear who will play a leadership role.**

The evaluation process continually surfaced the need for ongoing communication with green employers. The contact would need to be either individual or with groups of like employers in order for all parties to gain the most from the conversations. There is a significant need to talk to employers and create a “shared lexicon around the workforce system,” as one stakeholder put it. Employers need to be taught to understand the value of the training system as a “mechanism for quality assurance,” creating standards for skills and knowledge that employees should have. As another stakeholder noted:

*Employers need to be wooed, deeply wooed. They need to be taught to care about the people who need help and they need to hear the message over and over again. One-time meetings will not do it.*

This effort is all the more needed after the frenzy of the past year in which training providers were overwhelming employers with requests for formal hiring commitments. As another stakeholder stated:

*Employers need an opportunity to react to what has been going on with training providers. They need someone to ask, “What do you really need?”*

There are some efforts underway to convene employers. Renew Boston has convened relevant employers. In addition, the New England Clean Energy Council's New England Clean Energy Industry Workforce Needs Program will convene New England green employers in a series of forums throughout New England. SkillWorks is in negotiations to underwrite a portion of the Massachusetts forum(s). The question remains as to whether there

will be follow-up to these forums. How will the conversation be sustained? Some have suggested that SkillWorks could play that role in the greater Boston region, but it is unclear whether staff see that as a core competency or whether funders would consider that aligned closely enough with SkillWorks' long-term goals.

➤ **Stakeholders with exposure to other citywide green initiatives around the country questioned whether Boston's efforts compared favorably.**

While Renew Boston represents exciting progress for the city in encouraging the development of a robust green economy in Boston, interviews suggest that while the state is at the forefront nationally with respect to stimulating the green economy, there is an opportunity for the city to assert an even stronger leadership position. The level of internal coordination among various city departments dealing with the green economy could be enhanced. There could be a stronger link between energy goals and job creation. Some also note that the philanthropic community is not sufficiently engaged in or informed about the city's efforts to date. In addition, the city itself seems to question whether weatherization and energy efficiency will really be significant drivers of job growth in the coming years. In addition, since so much of the Renew Boston initiative is being funded by short-term ARRA funding, it's unclear whether the city will have the resources to be committed to energy-efficiency over the long term.

➤ **Quality and access are increasingly topics for policy discussion in regard to energy efficiency jobs.**

While public policy is encouraging job growth in the energy efficiency sector of the green economy, questions remain about the quality of those jobs. As result, there appears to be growing interest in looking at the use of public policy to ensure that the jobs that are being created and supported by policy are, in fact, quality jobs. An example of this growing interest on the federal level in 2009 was the first-time application of the Davis Bacon Act (which requires that federal contractors be paid a wage consistent with the prevailing local average) to the Weatherization Assistance Program. At a city-level, Portland, Oregon, has recently taken an aggressive stance to ensure local residents maximize the benefits from the growth in green jobs. In late 2009, the Portland City Council approved a Community Workforce Agreement (CWA) for Clean Energy Works, the city's program that is similar in intent to Renew Boston. The CWA calls for at least 80 percent of employees to be hired from the region and 30 percent of the workforce to be historically disadvantaged or underrepresented people—including people of color, women, and low-income residents. Similarly, the Portland CWA calls for 20 percent of contracts to go to businesses owned by historically disadvantaged or underrepresented people. By working with local labor organizations, businesses, and training facilities, the CWA also establishes a process for setting up qualified training programs and requires that contractors hire 100 percent of their employees from one of these programs until half of the positions have been filled.

The discussion around job quality and local benefit is gaining traction in Massachusetts as well. In March 2010, the Green Justice Coalition, the Massachusetts affiliate of the Apollo Alliance, announced the release of a new report, *An Industry at the Crossroads: Energy*

*Efficiency Employment in Massachusetts.* The Green Justice Coalition, which is spearheaded by Boston-based Community Labor United, is trying to bring attention to the creation of “high-road” jobs with good wages and benefits in the green sector. It sees a particular opportunity to bring this agenda to the forefront as there will be a massive influx of funds for energy efficiency retrofitting as mandated by the state’s Green Communities Act of 2008. The Green Justice Coalition report calls for paying the construction workers doing the retrofit work living wages of \$18/hour plus \$4/hour for benefits — in addition to a number of other proposed innovations. The Green Justice Coalition is now piloting a new model in Chinatown for conducting energy efficiency work that it believes will demonstrate the potential to perform this work for higher wages while still performing the work cost-effectively and protecting the returns of responsible contractors (with SkillWorks funding).

The nature of green jobs is likely to be a topic of discussion in the coming years and SkillWorks will likely be drawn into that conversation.

➔ **While there has been a proliferation of information relevant to green collar career pathways in the past year, there are still information gaps to be addressed.**

Below are some topics that warrant further research.

- Since so many green jobs training programs are so new, there are few serious outcomes evaluations available to demonstrate what kinds of efforts are proving effective. More information is needed on what programs are truly effective.
- So much emphasis has been placed on weatherization and energy efficiency, and far less attention has been paid to opportunities related to water, solid waste, or other industry sectors. There may be some research opportunities to clarify the workforce development opportunities and needs with respect to green jobs in these industries.
- While there is much talk about career pathways in green industries, there are opportunities to clarify the pathways to advancement starting with the weatherization and energy efficiency sector. There is an increasing interest in exploring the pathway from weatherization work as a point of entry that can lead to union apprenticeship programs. Entrepreneurial opportunities could be another path to advancement in this industry. Much of the focus recently has been about getting the first job in the green sector, but over time there will need to be an increased emphasis on how to ensure that these green jobs are not “dead end” jobs.

## **Activities and Outcomes of Year 1**

SkillWorks Green Jobs Initiative activities in 2009 were broadly aimed toward either one of two goals as was described in the theory of change diagram on page three: 1) coordination and collaboration of field; and 2) more informed decisions on investments and program design. The discussion of SkillWorks Green Jobs Initiative outputs for 2009 will be grouped accordingly.

## Coordination and Collaboration of Field

### ➔ Funders

SkillWorks Green Jobs Initiative provided several convening opportunities for funders to share information and ideas. These included:

- SkillWorks focused the agenda of a full funders group meeting on green jobs. (January 2009)
- SkillWorks served as the key convener for the city of Boston's application to Living Cities for a green collar career pathways training initiative in energy efficiency/renewable energy. Although the proposal was not funded, the application process laid the groundwork for continuing to work closely with the Mayor's Office of Jobs and Community Services and many CBOs in eastern Massachusetts.
- SkillWorks engaged formally and informally public funders, particularly with the Massachusetts Clean Energy Center and the City of Boston Office of Jobs and Community Service. For example, SkillWorks participated in the external review of the MassCEC/Commonwealth Corporation Capacity Building Proposals. (August 2009)
- SkillWorks participated in a convening, co-hosted by SkillWorks Green Jobs Initiative funder Barr Foundation, of public and private funders with the Funders Network for Smart Growth. Attendees discussed their current and planned investments in the green sector. Funders at the meeting expressed a desire to support and complement each other's efforts instead of duplicating and over-saturating the market. (October 2009)

SkillWorks anticipates continuing these efforts in 2010 with formal quarterly meetings, possibly in collaboration with the Sustainable Business Community and informal contact with key public sector and private funders.

### ➔ Employers

SkillWorks, in conjunction with the New England Clean Energy Council, Commonwealth Corporation, and the Massachusetts Clean Energy Center, sponsored a forum attended by over 80 clean energy and energy efficiency employers and funders to discuss workforce development funding programs emerging in these sectors of the economy. The forum, held in May 2009, also gave employers the opportunity to provide feedback on their needs and express concerns about workforce training.

The forum highlighted both the potential and the challenges of convening green employers. Employers who attended the forum and were interviewed for this evaluation were incredibly positive about the gathering. One employer noted its importance from a more theoretical level:

*The convening was incredibly helpful. If the ultimate goal is to get people jobs not just training, you have got to have constant contact with employers. Some things might work in theory, but not in reality. Talking with employers is the only way to get at that.*

Another employer spoke of the convening in terms of very tangible outcomes:

*I made good connections there. That was where I was introduced to Job Corps, which has been a good source of new hires for me.*

Some common themes were support for on-the-job-training and/or internships as effective methods of job training; eagerness to share best practices and experiences; the need to expand the circle of conversation; and questions around a common definition and scale of green jobs. Feedback supported that this is a new sector, everyone is still learning, and there is a strong need for more facilitated conversation and sharing.

### ➔ **CBOs/Training Providers**

The SkillWorks Green Jobs Initiative has had a variety of formal and informal interactions with community-based training providers in the past year. In the summer of 2009, SkillWorks invited community-based organizations with an interest in green jobs to discuss the current climate and get feedback on their needs and how SkillWorks could be helpful. SkillWorks used the feedback from this session and organized a strategy meeting with SkillWorks planning grantees around the Department of Labor (DOL) funding. SkillWorks representatives have attended convenings of CBOs organized by groups such as the City of Boston Office of Jobs and Community Services, and SkillWorks has more recently agreed to be the primary convener of community based workforce training organizations for the city's Renew Boston Initiative. No specific outcomes can be attributed to these efforts to date however.

### ➔ **Policy**

Policy does not appear to have been a major focus in 2009, but over the course of the year SkillWorks recognized a need to make policy a stronger focus going forward. Beginning in 2009, SkillWorks Green Jobs Initiative began looking for the points of intersection on the agendas of SkillWorks' workforce policy advocacy grantee, the Workforce Solutions Group (WSG), to the Green Justice Coalition and Community Labor United (CLU). CLU has already joined WSG's partners group. This relationship will be strengthened and likely formalized in 2010.

## **Activities to support more informed decisions on investments and program design.**

### ➔ **Capacity Building**

In April 2009, SkillWorks released an RFP for Energy Efficiency/Weatherization Workforce Partnership Planning Grants. The planning grants were to assist in the development of planning and relationship development that would ultimately help link low-income individuals to opportunities in the sector. On a concrete, tactical level, the grants were intended to build the capacity of community-based organizations so as to increase their competitiveness in attracting ARRA green job training funds.

In total, the SkillWorks Green Jobs Initiative Collar Pathways Initiative invested \$50,000 in four organizations: Asian American Civic Association (AACA), JFYNetWorks, MASSCAP, and the Urban League of Eastern Massachusetts. Since the award of the SkillWorks planning grants, the four funded organizations have successfully competed for city, state, and federal funding amounting to more than \$2.7 million. While their success can be attributed to a number of factors, the SkillWorks' planning grants played a significant catalyst role. Below is a summary of the intent of the individual grants and the outcomes.

- ***Asian American Civic Association (AACA)*** received a planning grant to prepare AACA's green facilities maintenance program, BEEMS, to apply for a DOL grant. Partners were to include the Boston PIC, the Boston Housing Authority, Boston Public Schools Department of Adult Education and Community Services, and six employer partners. After some unsuccessful grant applications, AACA theorized that its training programs were not "green enough" to appeal to funders. AACA made a strategic decision to instead focus on the development of an apprenticeship program for energy efficiency technicians. SkillWorks funds were used to support consultant time to assist in the development of curriculum and build key relationships. Additional funds (\$117,370) were secured from CommCorp and the MassCEC to pay for additional curriculum. The city of Cambridge has also funded AACA for \$100,000 to support training slots in the program for Cambridge residents. The pilot apprenticeship will be launched in June.
- ***JFYNetWorks*** received a grant for a project to expand access to weatherization training and jobs for low-income/public housing residents in Chelsea. Partners include the Metro North Regional Employment Board, the Chelsea Housing Authority, Roca, Inc., the city of Chelsea, and Suffolk Building Services. JFYNetWorks, in partnership with Roca, Inc., was awarded \$2.39 million from USDOL for a Pathways Out of Poverty grant to help high-risk youth in Chelsea and Revere gain employment in the weatherization and energy efficiency field. In reflecting on the role SkillWorks played in this successful outcome, the program contact said,

*I think the SkillWorks planning grant put [our efforts] into fast forward. We hadn't started the discussions. We were thinking about other partners for Pathways out of Poverty and thinking of other possible avenues for Roca. This presented itself. Things aligned. You could speculate that we might have done this anyway, but [the SkillWorks planning grant] really focused our thinking. We were well on our way to have the partnerships when the Pathways Out of Poverty grants came out. That certainly helped us. SkillWorks enabled us to be there. This put us in line and gave us a decent chance.*

- **MASSCAP** was funded to develop a regional training partnership with CAP (Community Action Program) agencies in Boston, Quincy, and southern Middlesex County. Partners include the Massachusetts Workforce Board Association, Massachusetts Community College Executive Office, Massachusetts Department of

Elementary and Secondary Education, and LEAN (Low-income Energy Affordability Network). MASSCAP used SkillWorks funding to conduct a research project to identify existing and potential green jobs and models of training programs relevant to low-income individuals. MASSCAP worked in partnership with community action agencies across the state, workforce investment boards (WIBs), and ABE providers. MASSCAP has not been successful in securing grants to implement specific programs as a result of its planning grant but MASSCAP is far more integrated into green jobs efforts as a result. It has instituted a permanent Green Jobs Advisory Group so the community action agencies across the state can share information and better coordinate (a problem in the past). The MASSCAP director has been invited to sit on an advisory board for MassGREEN, a statewide effort to standardize energy efficiency and weatherization curriculum at community colleges across the state. The planning grant helped MASSCAP “push their way to the table” to make sure that “our population is not being left out” of the green jobs discussion and planning.

- **Urban League of Eastern Massachusetts (ULEM)** was funded to develop a solar/photovoltaic installation training program. Ultimately, its efforts to build relationships with the unions led to a stronger partnership with the carpenters. Based on strong support from the union, ULEM developed a pre-apprentice training program known as Boston Carpenters Apprenticeship Readiness Program (BosCarp) with the carpenter’s union and two major union employers. BosCarp is a comprehensive apprenticeship readiness program incorporating technical carpentry skills, job-readiness, and case management services to prepare participants for carpentry careers or related occupations. The proposed design received support from the Commonwealth Corporation’s Construction Trades and Related Occupations Preparation Program (\$167,000) and will be implemented this year.

### ➔ **New Research/Information Dissemination**

SkillWorks co-hosted a webinar in August 2009 with the New England Clean Energy Council. Kevin Doyle, co-chair of the New England Clean Energy Council’s workforce development group, presented findings on a study that examined the current employment base of the state’s low-income weatherization program and the Residential Conservation Services Program, MassSAVE. Feedback from this webinar was enormously positive. Post-event survey responses noted how informative the webinar was and a number of people commented on the fact that the information would be sobering to those who had high expectations for job growth in the energy efficiency field. While no specific outcomes can be attached to the webinar, the feedback pointed clearly to the need for and appreciation of clear fact-based information on job expectations that can ground workforce development efforts in reality rather than hyperbole.

While SkillWorks did not sponsor any research efforts in 2009 related to other sub-sectors of the green economy such as water or solid waste, SkillWorks staff began to lay the groundwork for research into these industries in 2010. These will likely be the areas of further exploration in 2010.

## ➔ Pilots

SkillWorks did not directly fund any workforce training in 2009 on a large- or small-scale. While originally SkillWorks anticipated using planning grants to lead to a full-scale workforce partnership, now SkillWorks anticipates funding smaller pilots as mechanisms to test innovative approaches and contribute new knowledge and program models to the field as a result. The learning will be more important than the specific participant outcomes for these pilots.

## Key Findings Regarding SkillWorks Year 1 Activities

- ➔ **SkillWorks Green Jobs Initiative’s capacity-building grants were highly effective. Given the relatively small investment, SkillWorks provided catalyzing funds that moved each organization forward and helped one successfully compete for a Pathways Out of Poverty grant.**

While SkillWorks may have played only a small catalyzing role in the progress made at each organization, it seems quite clear that that this investment of \$50,000 yielded significant positive returns to the region. This program demonstrated the power of small investments that can yield lasting positive impact.

## **More work is needed to coordinate funder strategies and ultimately rationalize the “wild west” environment among CBOs.**

Despite the multiple informal and formal convenings of funders in 2009, there still appear to be opportunities to improve coordination in 2010. Concerns are still expressed that particular CBOs in the Boston area may lack the capacity to carry out all of the programs for which they have received funding. Baseline research suggests that fledgling green jobs workforce development programs are still seeking funds from a large number of funding sources without any sign that the funders are fully aware of the multiple solicitations. Concerns were also expressed that the philanthropic community does not appear closely attuned to the city’s efforts. In sum, there appears to be an ongoing need for periodic coordination of funding strategies and investments. Given the fluid nature of the field, no static written document that summarizes all parties’ involvement will make sense because it will be out of date by the time it is printed. Live conversations or social networking technology that allow for real time sharing of information make more sense in this environment.

In creating future funder gatherings, clarity on the intended outcomes of the gathering appears important. Feedback from funders suggested that convening is most useful when the nature of the discussion is specific in nature. As one funder stated, “I don’t want to participate in convenings for the sake of convening. There must be a clear intended outcome.” One funder noted a useful type of funder collaboration of the past year indicating that it was helpful when funders shared specifics about the proposals they were reviewing from CBOs so as to compare notes and discuss the relative strengths, weaknesses, and overall capacity of the various organizations.

- ➔ **While the SkillWorks-sponsored employer forum was well-received, it also provides some lessons for how to manage employer engagement differently in the future. The key changes would be more focused industry groups and continuity of engagement.**

The employer forum raised some of the challenges of employer convenings. First, green employers have little in common with each other. Lumping all green employers together to learn of their employment needs would be like lumping together a high tech biotechnology firm and an automaker to discuss the hiring needs of the manufacturing sector. The category is too broad to yield meaningful information. Second, any effort in this rapidly evolving sector requires follow up and continuity to build ongoing relationships, share current information, and reinforce a message around the value of reaching out to low-skilled, low-income populations for employment. With little immediate follow-up after the SkillWorks event, an opportunity was missed build an ongoing productive dialogue with employers.

## Recommendations

- ➔ **The traditional SkillWorks model does not match the needs of the green sector. The need that many hope SkillWorks will fill is truly that of a green sector intermediary for the Boston region. SkillWorks needs to determine whether it has the capacity and interest to play such a role.**

While there was recognition from the outset that the green economy necessitated a different approach from a traditional workforce partnership, SkillWorks has learned much over the past year about just how different the green sector is and how different a response it requires. Traditionally, SkillWorks has invested in workforce partnerships in robust, mature industries composed of relatively large employers. SkillWorks goals are more about ensuring that low-income, low-skilled individuals have access to and opportunities to advance in these sectors. With green collar jobs, there is still a need to nurture the sector as a whole, growing the pie, as opposed to focusing primarily on what portion of the pie is available to low-income, low-skilled workers. Within energy efficiency, and most likely within many other industries within the green sector, there is a need to stimulate demand as much as there is a need to ensure adequate supply of workers. As one stakeholder described, “SkillWorks needs to see itself as seeding the maturity and development of the sector.”

An analogy that highlights the difference of the main SkillWorks model from the SkillWorks Green Jobs Initiative model would be to contrast a commercial lender to a venture capitalist. One is relatively safe and predictable in its outcomes. The relationship between the bank and its portfolio is relatively passive. This is closer to the main SkillWorks workforce partnerships in which a grant is made based on a series of anticipated outcomes for individual and employers. Reporting structures are in place to monitor their progress. SkillWorks Green Jobs Initiative requires more of a venture style of investing in which SkillWorks is a catalyst in the marketplace, identifying interesting opportunities and models, brokering relationships, and seeding new ventures.

In effect, SkillWorks Green Jobs Initiative finds itself in a position to act as a sector intermediary as opposed to its traditional role of funding a sector intermediary. If, in fact, this

is the role that SkillWorks wants to or needs to play, there needs to be attention to the implications of this role. First, the work of a sector intermediary is intensive and strategic. SkillWorks Green Jobs Initiative may require additional staffing support in order to effectively fulfill the role of a sector intermediary. Furthermore, there is a concern regarding continuity and sustainability of the role of a sector intermediary. The Green Collar Career Pathways Initiative only has two more years of funding support. Nurturing green industries, and the resulting green collar jobs, is a long-term proposition. If SkillWorks accepts the role of a sector intermediary it will need to think of a sustainability plan beyond the two years.

- ➔ **Given the multi-faceted nature of the green economy and the rapid evolution in policy, funding, and sector needs, there is a risk for SkillWorks to lose focus in its efforts. SkillWorks needs to stay attuned to the outcomes it is trying to achieve and continually check to ensure that there is a clear link between the activities pursued and the desired outcomes.**

For example, SkillWorks staff have developed a work plan for 2010. The draft work plan covers work areas, tasks, timelines, and responsibilities. Staff should consider linking those tasks back to the goals of the initiative and should be very explicit as to what outcomes they are seeking from each task. Given the rapid evolution of the sector, the plan will likely need to be revisited and revised on at least a quarterly basis.

- ➔ **The SkillWorks Green Jobs Initiative could benefit from an advisory board specifically tasked to provide oversight and input into the strategic direction of the initiative.**

SkillWorks Green Jobs Initiative has separate funders who dedicated their contributions for the green initiative specifically. These green funders do not find sufficient overlap of interests with the full funder group to warrant regularly attending the SkillWorks funders meetings. However, separate SkillWorks Green Jobs Initiative meetings with this subset of funders, beyond informal check-ins does not appear to be likely given both their schedules and investment style.

While funder meetings are likely not the answer for the SkillWorks Green Jobs Initiative, staff could greatly benefit from some sort of advisory group to provide strategic insight into the activities and goals of the initiative. An advisory board composed of state and city stakeholders, employers, policy advocates, and training providers could provide SkillWorks staff with strategic direction. Given the rapid changes in the sector, the advisory board could be a means of staying abreast of developments.

- ➔ **The SkillWorks Green Jobs Initiative needs to place a stronger emphasis on building bridges between its CBO constituency and the community colleges system, which is poised to serve as a major hub of green training activity going forward.**

In awarding Springfield Technical Community College and its partner colleges the right to develop the standardized energy efficiency curriculum (MassGREEN) for the state, the MassCEC put community colleges at the hub of the industry's training activity. Given that development this year, it is of concern that community colleges were not significantly

integrated in SkillWorks efforts in Year 1. Given the ongoing concerns about community colleges' attention to the needs of low-income, low-skilled individuals as well as concerns about their lack of attention to job placement, it seems important that SkillWorks seek opportunities for collaboration between Roxbury Community College (the Boston MassGREEN) and the CBO community.

SkillWorks may want to discuss the applicability of the model pursued in Portland, Oregon, where a variety of organizations, not just community colleges, provide relevant training. Portland ensures the quality and consistency of the training by designating which training programs are "qualified." To qualify, programs must meet six eligibility standards including the use of curriculum that meets the United States Department of Energy standards and any additional specifications and standards designated by the Oregon Department of Energy and Energy Trust.

➔ **SkillWorks Green Jobs Initiative has made a sound choice to shift its approach from funding a full-scale partnership to funding smaller pilot workforce efforts. The key to this work will be to find pilots that are likely to seed innovation in the field and ensure that the knowledge built is shared.**

In shifting to pilots rather than a single workforce partnership, SkillWorks has recognized how it can best support the fledgling green collar workforce development efforts in Boston. To keep investments in pilots quite focused, the SkillWorks Green Jobs Initiative must remain clear on the specific rationale behind any pilot investment. In each instance, the contribution that the pilot can make to the field in terms of a new model or approach is most important. As a result, SkillWorks needs to be clear as to how a pilot is addressing unresolved issues or challenges in which more information is needed. Examples of those thorny issues that surfaced in the course of evaluation research include:

- build new forms of collaboration between CBOs and community colleges;
- build collaboration with unions, in particular into union apprenticeship programs;
- seek to break down organizational silos such as those between workforce development activities and weatherization activities within community action agencies;
- test advancement strategies that can demonstrate the pathway out of entry-level weatherization positions. Advancement should be thought of broadly to include including potentially entrepreneurial development; and
- test new contracting arrangements that would allow larger firms with better wage structures to remain competitive in the energy efficiency field.

The SkillWorks Green Jobs Initiative also needs to work to ensure that any lessons learned from a pilot investment are shared broadly to maximize the impact of the investment.

## APPENDIX A: RECENT STATE AND FEDERAL FUNDING IMPACTING GREEN WORKFORCE DEVELOPMENT

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### Recent Federal Funding Relevant to SkillWorks

#### Green-related ARRA Funding

- USDOL Pathways Out of Poverty: Grant to Roca, Inc. for approximately \$2.4 million. The grant will allow Roca, in partnership with its partners, JFYNetWorks, Lumber Liquidators, Metro North Regional Employment Board, Carpenters Union, and the Career Place, to train 225 high-risk youth for jobs in energy efficiency building construction and retrofitting as well as energy efficiency assessment. Revere and Chelsea are the communities targeted for this initiative.
- USDOL Pathways Out of Poverty: National grant to Jobs for the Future, Inc. (JFF) in partnership with the AFL-CIO Working for America Institute, for close to \$8 million as an expansion of services under the National Fund for Workforce Solutions (NFWS). Five NFWS sites will expand education, training, job placement, and retention services to green industries in their region with additional technical assistance and support from JFF and its national partners. Boston SkillWorks did not choose to participate in JFF's application, not wanting to undermine the city's application for the same funding. While Boston SkillWorks will not be a direct beneficiary, it is mentioned here because some of the peer convenings and technical assistance provided by JFF may be of value to SkillWorks Boston.
- USDOL Green Jobs – Labor Market Information Making Green Real: USDOL has funded the Northeast Research Consortium, a group of eight states, including Massachusetts, with approximately \$4 million to develop clear definitions of green jobs and green industries; to develop a variety of tools for identifying green jobs along with the specific skills and competencies associated with the jobs; to develop tools for green occupational demand analysis; to develop a green jobs portal in order to disseminate relevant green jobs information; and to develop a national green jobs bank.
- USDOL State Energy Sector Partnership and Training Grants: The Massachusetts Energy Sector Partnership will use its grant of approximately \$6 million to target industry sectors for which the state's energy sector policy is acting as a driver to grow jobs and specifically target occupations within those sectors that are identified as high demand and for which workers can be prepared in three years or less. Training will likely focus on the following fields: energy efficient building construction and retrofit, biofuels, renewable electric power, sustainable manufacturing, environmental protection, and green construction. The State Energy Sector Partnership will, in turn, distribute its funds to groups of workforce investment boards for specific training. CommCorp is the administrator of the funds. The greater Boston area, in partnership with the northeast region, will receive roughly a million dollars for green-related training.

- USDOL Green Jobs – Green Capacity Building: USDOL has provided funding to its existing grantees to further education and training to enter and advance in green energy industry jobs. One of these grants was to YouthBuild Boston for \$100,000.

## State Activity

Massachusetts Clean Energy Center sponsored three major workforce initiatives in 2009 and approved grants for roughly \$4.5 million over the course of the year. Its efforts included:

- Pathways Out of Poverty: MassCEC funded five green job training programs (total of one million dollars invested) but none were in the Boston area because the funds were targeted to smaller “gateway” cities.
- MassGREEN Initiative: MassCEC’s second initiative was to award \$1.875 million to Springfield Technical Community College to create regional training centers to train people in residential, commercial, and industrial energy efficiency skills. Roxbury Community College will serve as the regional training center in the Boston area.
- Capacity Building: The final initiative in 2009 was MassCEC’s investment in workforce capacity building. In the fall of 2009, MassCEC awarded nearly one million dollars for program development in clean energy workforce training to six sites, including two in the Boston area. Asian American Civic Association received a grant for its Energy Efficiency Technician Apprenticeship Program (EETAP). MassCEC funds were to be used for curriculum development, “train the trainer” programs, employer outreach, and the potential development of articulation agreements with other educational institutions. UMASS Boston was the other recipient in the Boston area. MassCEC funds were to support UMASS in the development of interdisciplinary degree and certificate programs for managerial and other professional positions within the green economy.