

SkillWorks Green Collar Career Pathways Initiative

Year 3 Annual Evaluation

INTRODUCTION

In 2009, SkillWorks launched the Green Collar Career Pathways Initiative (SkillWorks Green Jobs Initiative), an effort focused on workforce development within the green economy that had been awarded three years of support from the Barr Foundation, the Garfield Foundation, the Surdna Foundation, and the Chorus Foundation. SkillWorks has now completed the final year of the Initiative. This evaluative report highlights and interprets the outputs and outcomes of activities pursued in the third year of the Initiative. The report also reflects on the lessons learned over the course of the Initiative as a whole and provides suggestions for shaping future SkillWorks efforts in the green economy.

To prepare this report, Mt. Auburn Associates reached out to a number of stakeholders, including SkillWorks staff, grantees, funders, public sector partners, and sector advisors. This document presents a summary of the findings based on interviews and a review of relevant documents provided by SkillWorks and other stakeholders at the city and state levels.

ACTIVITIES

SkillWorks invested in a varied portfolio of activity related to green jobs in the final year of the Initiative, supporting innovative projects and exploring lesser known industries. But SkillWorks also made an effort this past year to build on the lessons learned to date to support some programs based less on their experimental value than on their likelihood of success. SkillWorks has diversified its green jobs strategy not only by working across a broad variety of green jobs areas, but also by using an array of approaches and tactics to accomplish Initiative goals and respond to opportunities as they arise.

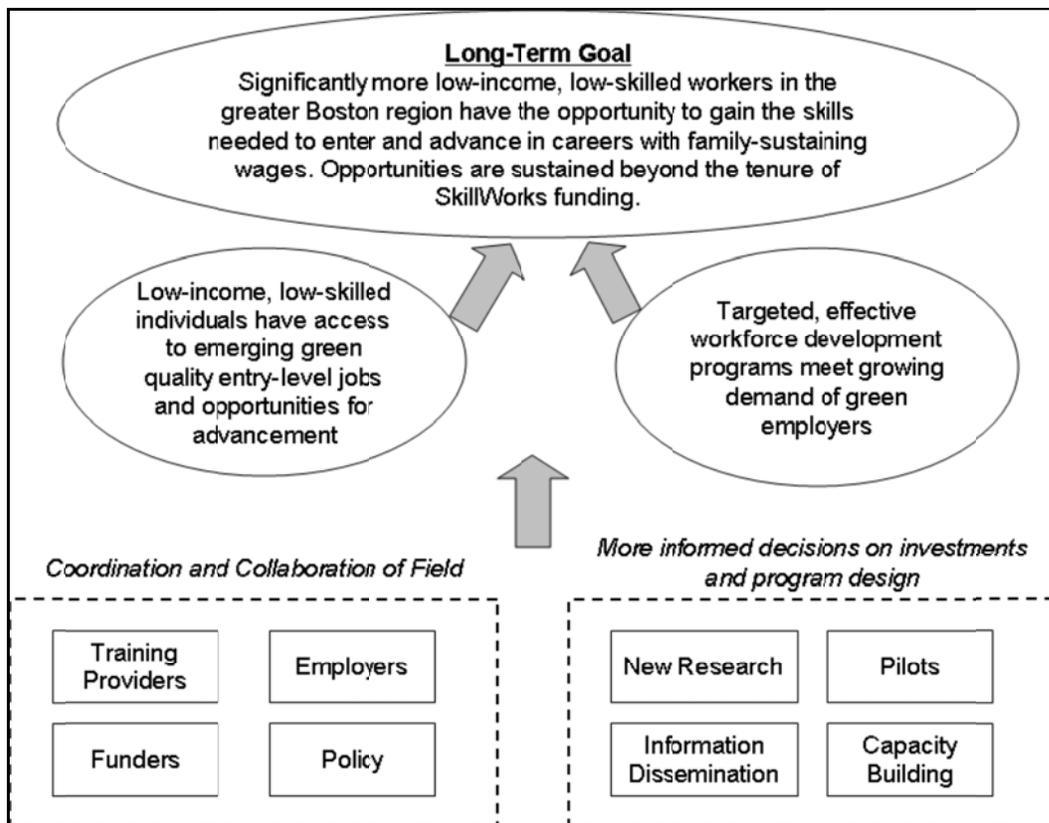
A note on the original theory of change

The SkillWorks Green Jobs Initiative began with a theory of change, displayed below in Exhibit 1, which divided efforts into two types: strategies that encourage coordination and collaboration in the field and strategies that help to better inform decisions about investments and program design. Initially, it appeared that separate strategies and activities would support *either* “informing decisions about investments and program design” *or* “coordination and collaboration.” As the Green Jobs Initiative evolved, it became clear that many aspects of the Initiative simultaneously worked toward both goals.

While both goals remain at the core of the Initiative’s approach, most activities were carried out under a capacity-building framework. Whether using a collaborative mechanism in order to share information or using information as a hook to convene people in ways that foster coordination, SkillWorks was seeking to build the capacity of the emerging field of green workforce development and ensure access to green collar career pathways by lower-skilled, low-income adults of Greater Boston. In Year 3, convening and grantmaking activities have continued to espouse this approach, seeking to increase collaboration and coordination in the field as well as disseminate pertinent reports, share best practices,

and help strategize with stakeholders around identified challenges. Over the course of the three-year Green Jobs Initiative, efforts have increasingly been centered on information as a tool and learning as a goal.

One essential element of the SkillWorks capacity-building approach for the green jobs sector was not fully captured when the initial theory of change was developed: dedicated Initiative staff. The model pursued by SkillWorks involved seeding varied activities, organizing convenings, contracting new research, and developing new organizational partnerships. This set of activities demanded a level of staff engagement far beyond traditional grantmaking. The director of the SkillWorks Green Collar Career Pathways Initiative functioned more like the leader of a sector intermediary for the green jobs workforce development field than a grants administrator. While her activities are not profiled separately, it is worth noting that the portfolio of activity pursued by SkillWorks was only possible by investing in dedicated staff time for implementation.



YEAR 3 SUMMARY OF ACTIVITIES

Convenings and Collaborative Projects

Peer learning network of public and private funders

SkillWorks continued to bring funders together, organizing and hosting two briefings with the goal of highlighting innovative work being done to help create green jobs that are accessible for low-income people in the Boston area. One briefing offered information on green business development and sustainability efforts, while the other involved presentations on the SkillWorks-funded municipal policy work of the Boston Housing Authority and the state-level advocacy work of Community Labor United and the Green Justice Coalition. Funders were invited to a third convening reporting out on three green labor market research projects. SkillWorks kept the broader network of workforce development funders informed by adding Green Jobs Initiative items to the larger SkillWorks funders group agenda and soliciting the input of the large funders group on some investment decisions.

Green Job Training Network

In Year 3, SkillWorks maintained the Green Job Training Network, organizing and leading three convenings for training providers. SkillWorks designed these convenings with a “dual focus” on information and collaboration, providing informative content that would attract participants and spark productive discussion, peer-learning, and networking. The first convening was focused on credentialing for energy efficiency work, the second on best practices in green sector employer engagement, and the third on background checks and CORI reform. Over the course of the year, participants heard from and interacted with representatives from major employers, city agencies, and public/private partnerships involved in green sector work.

Members of the Network also attended a fourth convening that was open to funders and other organizations. At this meeting, three SkillWorks research grantees presented their research on workforce demand and opportunity in the water, recycling, and clean energy industries.

Between convenings, SkillWorks kept in contact with members of the Network through phone calls, emails, the SkillWorks website, the Green Jobs Blog, and a Google Docs site.

Collaboration with Other Organizations

SkillWorks is itself a practitioner of the coordination and collaboration that it encourages among other stakeholders. In the final year of the Green Jobs Initiative, SkillWorks provided advice and sponsorship for several efforts led by outside organizations, working particularly closely with the city of Boston and the Massachusetts Clean Energy Center (MassCEC). These collaborative activities included:

- continuing a partnership with the city of Boston Contractor Institute by co-sponsoring a solar thermal energy workshop for employers and extending the invite to the Green Job Training Network;
- partnering with the New England Clean Energy Council (NECEC), MassCEC, and the Northeast Energy Efficiency Partnerships (NEEP) on the webinar launch of the online Massachusetts Clean Energy

Careers Training and Education Directory, the development of which had been supported by SkillWorks in 2010;

- serving on the advisory committee for MassCEC's *2011 Massachusetts Clean Energy Industry Report* in order to represent the concerns of low-skilled, low-income adults;
- co-sponsoring a live webcast from the 4th Annual Clean Energy Connections and Opportunity Fair so that those unable to attend could join in the discussion of a report on the first three Massachusetts Clean Energy Workforce and Economic Development Leadership Summits; and
- participating in the review of the MassCEC Pathways Out of Poverty grant proposals and coordinating with MassCEC to cover a funding gap with \$20,000 for support services for greater Boston grant recipients. SkillWorks funds provided resources to the South Middlesex Opportunity Council (SMOC) and Boston's Economic Development and Industrial Corporation (EDIC). SMOC utilized these funds to support case management services in its on-the-job weatherization training program. EDIC used funding to address transportation challenges of its program participants.

Informing the Field

New Research

SkillWorks has always valued workforce partnerships driven by labor market data, but found that green job training in recent years was hampered by inadequate labor market information. Although not traditionally a funder of research projects, in 2010 SkillWorks issued a Call for Concept Papers opening up funding for a variety of project types, including planning and research leading to and informing green training programs. As a result, two of the projects funded through that Call for Concept Papers were research studies aimed at providing a summary of the specific industry, employment projections, required skills and education, career pathways, and employment opportunities for low-income, low-skilled people. Both studies were designed to "test the waters" or provide an initial scan of these industries to uncover the potential and need for workforce development investment. The two projects were carried out in 2011 and are described in greater detail below.

Promoting Entry to Career Pathways in the Drinking Water and Wastewater Sector. After a process that included significant input from SkillWorks, the University of Massachusetts Lowell Center for Sustainable Production was awarded a \$20,000 research planning contract to work with the Massachusetts Workforce Alliance to identify opportunities and obstacles for low-skilled, low-income populations to enter the drinking water and wastewater sector and progress through a career pathway. The project was not meant to be a detailed labor market study, but rather a more general study of what the job market looked like in Massachusetts and whether and how workforce development for low-income people could be made viable in this industry. The grant required the production and dissemination of a final report as well as a presentation at a SkillWorks convening.

Recycling and Jobs in Massachusetts: A Study of Current and Future Workforce Needs. In 2010, SkillWorks awarded the Environmental Business Council of New England (EBC) a \$50,000 contract to work with MassRecycle and an external consultant on a study of the recycling and deconstruction industries in Massachusetts. Study goals included better quantifying the number and types of jobs,

identifying where job growth and contraction might be occurring, and assessing the skills and education necessary to work in these industries. This grant also required that the recipients give a presentation at the SkillWorks research convening and produce and disseminate a final report. The research was conducted over the course of 2011 and included surveys, interviews, and other interactions with employers and workers in recycling-related industries. Although of a larger scope than the water project, the recycling study was about sketching out the general picture of opportunities in the sub-sector, not about providing an analytical study of the job market.

Information Dissemination

SkillWorks continued to disseminate information relevant to green collar workforce development efforts, using both formal and informal channels.

SkillWorks capitalized on social media tools with frequent updates to its website, blog, and Facebook account, while also broadly distributing emails for informal means of information distribution. These were useful tools for posting information about SkillWorks-related efforts, but also for linking to and discussing funding opportunities, news stories, reports, event announcements, and other outside resources relevant to green jobs in Massachusetts.

SkillWorks also organized or participated in more formal events during which information was shared. As mentioned previously, the funder and training provider convenings were mechanisms for distributing information. SkillWorks also intentionally built into its research studies contracts that the authors would share their findings at a public event convened by SkillWorks. It further encouraged authors to present findings at other industry and workforce conferences. SkillWorks also helped to sponsor webinars and live webcasts as additional means of efficiently updating the field on new tools and new labor market information.

A final component of SkillWorks information dissemination work is the upcoming Green Jobs Investment Guide. In 2011, SkillWorks compiled a green jobs guide for funders and other stakeholders that will be released in mid-2012. This guide will aggregate many of the lessons learned over the course of the Initiative and highlight resources and opportunities for future efforts in green workforce development and job creation.

Capacity Building

SkillWorks oversaw three capacity-building grants in Year 3—a policy grant and two \$10,000 planning grants. While the strategies varied, each grant was intended to build the capacity of a specific organization with the expectation that the increased capacity would lead to more employment opportunities for low-income individuals in the medium- to long-term. Descriptions are provided below.

Policy grant for the Boston Housing Authority (BHA). One of the major challenges of getting low-income people into green jobs has been the difficulty posed by the prevalence of informal hiring networks in several green-related industries. One way to address this challenge is to explore and leverage publicly-funded energy efficiency projects and local hiring policies, which SkillWorks did in 2010. From this work emerged the opportunity to work more closely with the BHA around its work to increase compliance with HUD's Section 3 hiring policy. In May 2011, SkillWorks awarded the BHA a \$40,000 capacity-

building grant to revise its Resident Employment Policy (REP) and build an infrastructure for effective Section 3 compliance in light of the green employment opportunities created by its multiple capital and retrofitting projects, including a major \$63 million energy efficiency project. Section 3 is a federal statute which states that the business and employment benefits generated by federally-funded housing work should go to low-income people to the greatest extent possible. The BHA used the grant funds to work with external consultants to revise the REP, conduct strategic planning, and develop a detailed REP implementation plan that set up an infrastructure for tracking and enforcing Section 3 compliance. The grant also required that BHA present its work at one of the funders' network convenings.

Planning grant for Operation A.B.L.E. of Greater Boston. Operation A.B.L.E., a nonprofit specializing in the training and employment needs of adults over the age of 45, received a \$10,000 planning grant to build upon its Weatherization and Energy Auditing Training Program (WEAT) and develop an Energy Efficiency Administrative Support Skills training program. Grant activities included engaging employers, revising and enhancing the program curriculum to match market shifts, identifying relevant credentials, and confirming the participation of educational institutions and training providers. The reasoning behind the design of this grant is described in more detail in the outcomes section of the Year 2 (2010) evaluation.

Planning grant for JFYNetWorks. JFYNetWorks, a Boston-based nonprofit whose mission is to empower youth and adults through high-quality education and skills training, was awarded a \$10,000 grant to explore the possibilities for incumbent services and to develop an apprenticeship pathway in hazardous waste management. Grant-supported activities included deepening relationships with existing employers, cultivating new partnerships with additional employers and specialized trainers, reviewing relevant credentials, and producing a revised curriculum. As with the Operation A.B.L.E. grant, there is a more in-depth explanation of the goals of this grant in the outcomes section of the Year 2 (2010) evaluation.

Implementation Pilots

This past year, SkillWorks awarded one grant for a pilot project and oversaw the completion of another pilot associated with a grant made in 2010. These pilot grants are explained below.

Asian American Civic Association's (AACA) Energy Efficiency Technician Apprenticeship Program (EETAP). In 2010, SkillWorks awarded a \$76,235 pilot grant to AACA for EETAP, an apprenticeship program that combined on-the-job training with support services, including case management, classroom instruction, pre-vocational English, and career coaching. The SkillWorks funds supported training for 15 low-income Boston area residents for positions as certified energy efficiency technicians. Training was conducted over the course of 2010 and 2011. A more detailed description of this project can be found in the Year 2 evaluation, which also includes the early outcomes of this project. The final results are reported in the outcomes section of this report.

Action for Boston Community Development's (ABCD) GreenSTREAM program. In early 2011, SkillWorks awarded ABCD a \$75,000 grant for implementation of a new career pathway training program in the green manufacturing/remanufacturing industry, titled *GreenSTREAM: Sustainable Training Resources for Environmentally Advanced Manufacturing*. GreenSTREAM sought to provide Boston residents with work-readiness training; science, technology, engineering, and mathematics (STEM) remediation; on-

the-job skill development; and certification opportunities. The SkillWorks grant was to support the training of 40 participants—25 pre-employment and 15 incumbent. The grant also required that GreenSTREAM build broader employer partnerships. SkillWorks ended up playing an additional support role when the GreenSTREAM program had difficulties with its employer partnerships. This situation will be discussed in greater detail in the outcomes section of this report.

Capstone Implementation Grants

At the outset of the Green Jobs Initiative, SkillWorks had hoped that its planning grants would lead to a full-scale workforce partnership. However, it quickly realized that slow job growth coupled with a rapid infusion of federal training dollars lessened the need for a full partnership at the time. SkillWorks instead used its grants to fund smaller pilots as learning opportunities to test different approaches. In the third year of the Green Jobs Initiative, SkillWorks began to apply some of the lessons that emerged from this earlier work. Two findings were particularly influential:

1. There are fewer new green jobs than expected, but more traditional occupations are incorporating green practices. Training programs need to adapt to meet the evolving needs.
2. Existing training programs have stronger capacity to deliver services and develop employer relationships and, ultimately, are more likely to be successful than newer organizations that start green job training with limited workforce development experience.

These lessons led SkillWorks to look at a broader set of candidates for partnership implementation funding, and, in the end, two opportunities were found to fund the “greening” of existing job training programs. These grants are described below.

Partnership for Automotive Career Education (PACE). PACE, a full-scale green workforce partnership, is the fulfillment of the original intent of the Green Jobs Initiative, bringing workforce development in the green sector to a more significant scale. PACE, developed by Asian American Civic Association during SkillWorks Phase I, is a workforce partnership led by AACA, a community-based organization, and includes as partners several automotive employers in the greater Boston region, two training partners, and postsecondary institutions. The partnership helps automotive service employers fill entry-level positions with workers who have historically inferior access to labor market opportunities. In addition to AACA, primary partners include Benjamin Franklin Institute of Technology, Boston Public Schools Department of Adult Education and Community Services, Sullivan Tire and Auto Service, Direct Tire and Auto Service, and Herb Chambers Honda. SkillWorks successfully competed for an \$850,000 grant from the U.S. Department of Labor Green Jobs Innovation Fund as one of seven local sites in Jobs For the Future’s (JFF) national proposal to add a 45-hour hybrid and alternative fuels component to the PACE curriculum. Over a three-year period concluding in June 2014, the grant will train 70 low-income adults under this enhanced program and provide them with placement and support services.

With a current shortage of automotive service technicians in Massachusetts, particularly for bilingual technicians and those with specialized skills in hybrid and alternative fuel vehicles, demand for PACE graduates is expected to be high. PACE expects the majority of participants to receive well-paying, permanent positions in the field. A full evaluation of this workforce partnership will be produced later in 2012 following the completion of the first year of implementation funding.

YouthBuild Boston's (YBB) Green Construction Program. Since neither of the planning grants from 2010 led to an implementation grant in 2011, SkillWorks began to look at other funding possibilities. SkillWorks decided at the start of 2012 to support the expansion of YBB's Green Construction Program with a \$50,000 implementation grant. YBB is a community-based organization (CBO) that helps at-risk youth and young adults in the Boston area gain the basic academic, social, and professional skills they need to become employed in the building trades. Its programs consist of classroom and on-the-job vocational training, GED prep classes, and several related support services. Through strong partnerships with the city of Boston, unions, employers, and other organizations, YBB tries to ensure that as many of its graduates as possible are placed in jobs or building trade apprenticeships. Prior to receiving SkillWorks funding, YBB was an active member of the SkillWorks Green Job Training Network and had already begun to add in green skills components to its program. The SkillWorks grant supported the hire of a vocational education instructor to more formally integrate green building techniques into the core curriculum. YBB will serve 45 pre-employment participants over the one-year grant period.

OUTCOMES

Has SkillWorks Green Jobs Initiative led to stronger coordination and collaboration in the field?

*"SkillWorks has gotten people talking to each other."
(Green Training Provider)*

SkillWorks played the convener role well and successfully brought together a wide range of stakeholders involved in green jobs. One interviewee noted that one of the most helpful things SkillWorks has done has been "convening the training providers," which, in turn, has made everyone "more connected." Another interviewee found that "there are now better conversations—more focused conversations—in terms of occupation needs between environmental businesses regarding jobs and training." These deeper conversations were attributed to efforts undertaken by the SkillWorks Green Jobs Initiative staff, who played a critical role in bringing partners to the table and keeping them there. Stakeholders on all sides reported positive and productive interactions with SkillWorks staff, regularly describing them in such terms as smart, professional, strategic, trustworthy, and flexible.

Both the information shared through the convenings and the new connections made during these meetings were valued by participants. As mentioned previously, SkillWorks used information dissemination as a "hook" to bring people to the table. Staff noted that in order to keep people engaged, they had to feel that they were learning something and gaining tangible value from the convenings. Therefore, the topics and the speakers at the convenings were as critical as the opportunity to network. The thoughtful agendas were valued by attendees, and as one stakeholder noted, "SkillWorks has continually kept green jobs on the agenda, which has kept us abreast of what the trends [are], via 'headlights' that let us know what's ahead." Another stakeholder similarly noted that the "roundtables were excellent" as was the "support." Even presenters found these meetings to be valuable opportunities for sharing their knowledge and receiving feedback.

Year 3 represented the third year that SkillWorks made efforts to convene providers. It is impossible to fully separate the impact of Year 3 from prior years, but it is important to note that the *multi-year* effort

has value in building trust, collegiality, and a common knowledge base among participants. The relationship building in the early years of the Initiative contributed to a stronger dialogue in Year 3. SkillWorks successfully identified and filled a critical gap in the emerging green workforce development field by convening training providers. Some individuals suggest that these convenings had tangible impacts. As one stakeholder expressed, “Everyone got involved in the green industry a few years ago, but it has only been the ones with connections to agencies and employers that have survived.” Multiple parties agree that SkillWorks contributed to those vital connections.

The Green Job Training Network was most valued among organizations that had ongoing connections to SkillWorks, such as recipients of planning or implementation grants. In some instances, training providers who did not receive grants through SkillWorks found the convenings informative and useful, but seemed to lose the connection to SkillWorks on an ongoing basis. It appears that besides the one or two people they may have sent to attend convenings, non-funded providers did not remain well-connected to or informed by SkillWorks activities.

SkillWorks was challenged to bring funders into the conversation, partly as a result of waning interest after the initial wave of funding for green jobs. The flood of federal funding to support green jobs training, combined with reports showing limited employment opportunities, dampened philanthropic interest in this sector. Changing priorities caused funders to change direction. Lack of interest among funders created less opportunity to leverage investment from them and, therefore, less of a need to coordinate funders. While convenings did offer relevant information to funders, their group was not as dynamic as the training providers’ network.

Although there were some employers engaged in the Green Job Training Network, SkillWorks placed less emphasis on convening employers as a large group following some early efforts in Year 1. Instead, SkillWorks worked indirectly to engage employers. SkillWorks used its grantees to foster stronger ties to employers as part of its grant activities. The grantees, particularly the training providers, gained from these connections. Even in instances where grantees did not necessarily meet their intended program activity or placement goals, they benefited from the new relationships with employers and the knowledge gained about the industry. “The real learning,” said one grantee, “was through the resulting conversations with employers and those interactions.”

In addition to efforts to foster stronger relationships between grantees and employers, SkillWorks partnered with other organizations already active in convening employers. SkillWorks partnered with trade associations and public agencies engaged with employers and invited them to green training network and funder convenings. These partners were invaluable as SkillWorks designed its Green Provider network convening on CORI issues. Despite the efforts of SkillWorks to collaborate with organizations actively engaging employers, there is a general perception that stronger communication is needed between green employers and the workforce development field. A stronger feedback loop between these parties would help training programs tailor their offerings to the true employer need and ultimately better match the supply of trained workers with job openings.

Has SkillWorks Green Jobs Initiative led to more informed decisions on investments and program design?

By serving as a convener and industry educator, SkillWorks has been able to not only make strategic decisions on which programs to fund, but has also provided the tools for grantees to make informed decisions on how research and programs are structured. In an industry that has been changing at an astounding rate, both in its demand and requirements for prospective employees, SkillWorks has played an important role in making sure its grantees are among the more competitive providers out there, making informed decisions based on lessons learned in earlier years and designing programs accordingly.

New Research

The most significant outcome associated with the research reports to date has been the value in signaling the workforce development field to consider green employment opportunities beyond weatherization. This work began in Year 2 when SkillWorks released a Call for Concept Papers specifically looking for research or programmatic efforts targeting less well-known aspects of the green sector, including water/wastewater and recycling. The signaling was reinforced in Year 3 when the two research projects that resulted from this Call for Concept Papers were discussed at a large convening in December 2011. In the coming year, there are likely to be additional outcomes beyond this early signaling, since the final reports are only now in the process of being released. Consequently, it is too early to tell if the findings within these reports will inform the industry and shape future workforce development programs.

In neither case did the research surface an immediate substantial demand for new workers, but they did identify opportunities warranting further investigation. It is important to note, however, that the research on wastewater and recycling will require additional, more detailed, and region-specific research before new workforce development programs can be developed. The reports were not designed to be detailed labor market studies. In the case of the water research, the study intended to heighten attention to the upcoming waves of retirement in the sector. For the recycling research, authors had hoped to raise additional funds to support a deeper examination of the labor market, but had to scale back research based on the funds available. Even with a limited project scope, the studies were able to identify relevant information and fill information gaps for each sector. For example:

- The UMass water report used labor market projection formulas to demonstrate a notable shortage of entry-level workers in the water industry over a time horizon of roughly five years. Demand in the near-term, however, is relatively small. The authors hope that the long-term needs identified in the study will spur some additional research, including a detailed job analysis that could lead to the development of training programs to meet demand. In the meantime, authors also note that the study, which had three intended audiences (workforce development professionals, trade associations, and regulators), started valuable dialogue and information sharing that will better position the sector to respond to evolving workforce needs in the future.
- The recycling and deconstruction report did not demonstrate sufficient employer demand to warrant the development of a new pre-employment training program tailored to the needs of this industry. However, the information provided in the report highlighted significant opportunity and demand for incumbent worker training.

SkillWorks' aim in providing training providers with this information is to help them make more informed decisions about their training activities in the future.

Capacity Building

Three SkillWorks-funded capacity-building grants to Operation A.B.L.E., JFYNetWorks, and the Boston Housing Authority came to fruition in Year 3. While all three grants were valued and useful to the grantees, the outcomes related to the capacity building are particularly noteworthy at Operation A.B.L.E. and BHA.

JFY sought to develop a career pathway for low-income, low-skilled individuals in hazardous waste management. JFY engaged further with existing employer partners, reached out to two new employers, explored union and non-union career tracks, spoke with organized labor regarding a potential pre-apprenticeship partnership, reviewed industry credentials, and spoke with community colleges about their environmental programs. Through this work, JFY was able to identify a gap between the skills needed to enroll in a certificate program and those prerequisites needed for an associate's program. Unfortunately, JFY found that the world of hazardous waste management and deconstruction are often made up of small to midsized companies that are only interested in hiring a couple of people, and not every year, or individuals willing to work on a project basis. With limited demand in this arena, there was not enough substance to fund a follow-up implementation grant. This planning grant allowed JFY to explore green training career pathway opportunities, but, ultimately, JFY has shifted back to its core focus and may be pulling out of job training altogether, a decision not directly related to this planning grant.

Operation A.B.L.E. designed a program that highlighted the potential of training individuals for "back office" or administrative positions at weatherization firms. Operation A.B.L.E. was able to leverage its existing administrative support program to enhance and expand its weatherization field program. Revisions to the weatherization curriculum included incorporating sales training, customer service, and an understanding of rebates and incentives as well as remedial preparation for the Building Performance Institute (BPI) exam. Operation A.B.L.E. successfully capitalized on the capacity-building grant to make the new training operational and quickly received enough funding from the city of Boston (\$100,000) and National Grid (\$25,000) to fully support the enhanced training program for two cohorts.

BHA used SkillWorks funds to augment an effort already underway to expand access for low-income, low-skilled workers to green jobs through public sector workforce development, creating a "marriage between community services for workforce development and Section 3."

As part of this grant, the BHA revised its Resident Employment Policy, including setting up a resident training fund intended to increase the supply of trained Section 3 residents. It then contracted with an external consultant to reorganize and build capacity to implement the REP.

Beyond working to increase the skill level of its residents, the BHA increased the weight of Section 3 hiring practices as a factor in the evaluation of potential vendors. It also focused on Section 3 hiring compliance and determined that it was necessary to 1) move compliance documentation to the front of contracts with employers in order to negotiate the employers' Section 3 plan, and 2) track compliance using a database it intends to procure after obtaining HUD approval. As part of the compliance and

tracking effort, the BHA set up memoranda of understanding (MOUs) and formal working structures if employers hire Section 3 residents. BHA also made the process easier for employers by simplifying the forms used when hiring Section 3 residents.

The BHA policy changes are already having a positive impact. Interviews suggest that BHA's increased emphasis on Section 3 hiring compliance is increasing the placement opportunities for local workforce training providers. YouthBuild Boston noted that as a result of the of the BHA's efforts supported by SkillWorks that multiple construction companies are seeking to partner with YBB to help them "fill their local [hiring] compliance." BHA noted that it has already certified 12 Section 3 businesses that have hired 50 percent very low-income residents, or 30 percent Section 3 residents, and it is diligently working on getting those employers jobs and contracts. According the BHA chief of staff, the Old Colony Phase I project is one source of employment for over 125 Section 3 hires.

Implementation Projects

GreenSTREAM. Through the ABCD GreenSTREAM grant, SkillWorks aimed to create a career pathway training program in the green manufacturing/remanufacturing industry. Originally, GreenSTREAM had two interested employers, but one dropped out, leaving Roxbury Technology Corporation (RTC), a social venture that recycles and remanufactures ink cartridges, as the sole employer partner. SkillWorks helped with employer outreach, but even though ABCD worked with EBC and contacted more than 30 businesses, it was unable to find more partners with current workforce training needs.

Then, just as GreenSTREAM started to focus its efforts on RTC exclusively, RTC, facing a slowdown in business, began to waver in its training commitments. SkillWorks tried to help GreenSTREAM make a case to RTC that the productivity gains from training would outweigh the short-term costs, but in the end, as a result of continuing problems related to RTC's reduced need for new hires and its reluctance to have employees spend time on the training, only one group of six incumbent workers was trained and the rest of the planned training was cancelled. Because of this, the second SkillWorks grant installment was not awarded and the program was discontinued.

YouthBuild Boston. The YouthBuild Boston grant is an example of SkillWorks intentionally adding green elements to an existing program as opposed to creating a new green program. The activities included in the Year 3 YBB award focused on enhancing the green curriculum component of an already strong, well-rooted, and well-respected workforce training program. The program is showing early indications of success; YBB staff noted that they actually have had "new construction companies reaching out to us to see if we have viable candidates for job placement." As YBB continues to align with employers, it is gaining credibility in the field. Because this SkillWorks grant provided funding for additional components to a pre-existing program, it is difficult to attribute YBB's success solely to SkillWorks funding. Even without the grant, YBB planned to continue to improve its green program. Nonetheless, this SkillWorks grant provided YBB with the ability to fund a vocational education instructor to teach green building techniques and implement its plan to have green components in its classroom curriculum as well as its on-the-job training. As part of this grant, SkillWorks also offered YBB support in the form of coordination, collaboration, and resources.

AACA-PACE. PACE, the Green Jobs Initiative's full-scale workforce development partnership, will complete its first of a three-year training program at the end of June 2012. As with all SkillWorks-

supported workforce partnerships, a full evaluation of the partnership will be completed following the completion of Year 1. Even in early stages, PACE is demonstrating positive results. AACA developed hybrid and alternative fuel curriculum in collaboration with Benjamin Franklin Institute of Technology (BFIT). The first cohort to receive this newly developed curriculum began training in September 2011. Since the funding for this program is from the Department of Labor, this program will be thoroughly assessed in a separate evaluation. The initial outcomes from the first training cycle show 11 of 15 individuals completing the training and nine of those graduates receiving jobs as of June 2012. Additionally, PACE has had success in expanding its articulation agreement with BFIT to increase the total number of college credits participants receive for completing the automotive technology program, including the hybrid and alternative fuels component.

Long-Term Outcomes

Have the results described above led to desired outcomes for low-income, low-skilled individuals and green employers?

The intent of this Initiative was to build and strengthen the capacity of the system through collaboration and information, not necessarily to create immediate results for low-income people through direct training at a substantial scale. While SkillWorks would have liked it if more grants led to a large-scale partnership or a successful model program, it understood from the beginning of this Initiative that there were no shortcuts to this sort of impact and planned accordingly.

Some of the early pilots were particularly challenged in terms of direct results for participants, but initial results from more recent grants, still in progress, are promising. Below are tables that document participant outcomes to date:

Pilot and Implementation Grant Outcomes

Pilot Grants

		Enrollment	Completion	Placement	Promotion with wage gain
AACA EETAP	Goal	15	14	10	n/a
	Actual	5	1*	1**	n/a
ABCD	Goal	40***	30	20	5
	Actual	6	5	0	1
CPA	Goal	12	11	10	n/a
	Actual	14	13	4	n/a

*This refers to completion of the main piece of the program, a 14-month-long apprenticeship. The grant was modified as the apprenticeship model became unsustainable. AACA ran a BPI Building Analyst Training class and enrolled five SkillWorks-funded participants who also received case management and coaching.

** This counts permanent placements only, not paid apprenticeships.

***This includes 25 pre-employment training enrollments and 15 incumbent training enrollments. These numbers were revised downward partway through the grant period. Pre-employment training did not go forward.

Implementation Grants (in progress)

		Enrollment	Completion	Placement
YBB*	Goal	45	40	32
	Actual	17	n/a	n/a
AACA PACE (First 15 months)**	Goal	30	26	20
	Actual	32	11***	9 ***

*YBB grant period is 2/1/12 – 1/31/13. Since cohorts run from 6-9 months, there is no completion or placement data available yet.

**This table includes goals and outcomes to date for the first two of five total cohorts. At the end of the program’s entire three-year run, it is expected that 70 participants will have been enrolled, 65 will have complete training, 50 will have gained unsubsidized employment, and 38 will have retained employment for at least six months.

***Results only include the first cohort of 15. Training for the second cohort of 17 began in February 2012 and is still in progress.

For most programs, desired outcomes for low-income, low-skilled individuals and green employers have not been met. YBB has had some success, but its program is still underway and, like many training providers, YBB continues to worry about how to predict where job openings are going to be in a weak market. AACA was disappointed by EETAP, which graduated one of six apprentices before it ended in fall 2011, but AACA is much more positive about PACE, which hopes to place at least 20 graduates by September 2012. Though JFY had a planning grant, it, too, noted the tough placement environment.

While direct service outcomes were minimal, SkillWorks continued to shift the conversation around green job training to ensure that the needs of and opportunities for low-income individuals were part of the discussion. The training provider convenings led by SkillWorks increased dialogue not only within the network, but also among CBOs and representatives from MassCEC, green area employers, the city of Boston, and other groups. SkillWorks definitely contributed to a changing perception about the role of CBOs in meeting the needs of low-income, low-skilled individuals, evidenced by MassCEC’s inclusion of CBOs as eligible grantees under the Pathways Out of Poverty Initiative. Three years after the beginning of the Green Jobs Initiative, its long-term goals may still seem far-off, but the work that SkillWorks has done to support, inform, connect, and observe training providers has enabled community-based organizations to better adapt to a difficult environment, improve their program offerings, and become more future-oriented and realistic in their thinking.

REFLECTIONS ON THE THREE-YEAR INITIATIVE: SUCCESSES AND CHALLENGES

Successes

SkillWorks intentionally funded little direct training. SkillWorks tested a different model of philanthropy, and through this it was able to learn more about green industry sectors. SkillWorks has been praised by stakeholders for having a “diversified portfolio” of grants and partnerships. Building and managing such a diverse portfolio is certainly laborious, but doing so has allowed SkillWorks to explore the sector opportunities and to seed change for the future. The high expectations associated with employment opportunities in the green industry, coupled with the diversified portfolio of small grants, make it difficult to see if this new model of philanthropy “worked.”

The goals of this Initiative focused on greater coordination of stakeholders, thoughtful program design based on more informed decisions, and the generation of new knowledge and ideas through research grants. This strategy has led to a number of successes.

SkillWorks achieved early success merely by aligning interests of diverse funders and bringing them together around one table.

SkillWorks was able to engage environmental funders on workforce development as opposed to just policy advocacy work. Other collaboratives nationwide have not been able to draw together a “green funders group” like SkillWorks has. Though it proved difficult to deepen and sustain the interest of funders that lacked a strong workforce development focus, the achievement of bringing them to the table is still significant. SkillWorks’ ability to convene this green funders group for this Initiative demonstrated the potential of looking for the intersection of interests among varied stakeholders to the benefit of low-income individuals.

SkillWorks broadened the definition of “green jobs.”

In Year 2, SkillWorks had made an intentional decision to fund research and programs for Year 3 that focused on career pathways beyond those that had been deemed “traditional” green jobs. SkillWorks ended up awarding grants targeting several underexplored areas, including water and wastewater management, energy efficiency administrative work, and hybrid vehicle repair skills.

Among interviewees, SkillWorks was often praised for using a broadened definition of green jobs in the development of its strategy for Year 3:

“SkillWorks had been focused on more entry-level jobs, especially weatherization, as they tried to follow the market. This was based on anecdotal and some empirical evidence. They ended up broadening their focus regarding green jobs by expanding to wastewater and water management, which was a pretty smart move. It was great that SkillWorks expanded to broaden their focus.”

SkillWorks made use of this expanded definition internally, but it also spread it throughout the workforce development community, using convenings, blog posts, RFPs, and other formal and informal communications. Many stakeholders found SkillWorks to be a leader in redefining the future of green jobs:

“People have come to understand all sectors of green jobs. They now look at all sectors, not just traditional “green” jobs. [Now they look at jobs] in water, air, forestry, brownfield redevelopment, etc. There are lots of industries that fall in “green” jobs—unfortunately, the definition of green jobs got defined as four or five job titles, and when there proved to be less vibrant sources of jobs in green building, people sort of said “that’s the end of that”...If that was the premise, the premise was wrong from the start. Now the workforce industry is realizing “green jobs” aren’t limited to these five jobs. SkillWorks helped push the broader definition.”

SkillWorks was willing to make small investments to explore untested models. While several investments did not “pay off” in terms of outcomes, they were a necessary step in exploring needs and opportunities in the nascent sector.

The small seed grants allowed grantees to pilot riskier program models that would inform the shape of future programs. One interviewee stated, “They invested in the right things, gave grants of the right size to the right people, and focused on what works—learning from the lessons of the past.” Overall, SkillWorks staff have found that these grantmaking experiments have been useful. Ultimately, SkillWorks funding shifted away from the smaller unconventional models of workforce development not because of the risk, but because the Initiative had learned from earlier investment components what would likely lead to success, most notably a successful track record in workforce development.

SkillWorks facilitated the opportunity for transparent discussions between training providers and employers.

The SkillWorks convenings in Year 3 were collectively thought to increase and strengthen collaboration and coordination. One particular Green Job Training Network convening focusing on CORI and background checks stood out as a major breakthrough, with CBOs engaging in transparent discussions with the right stakeholders for the first time. This convening brought in human resource decision-makers at large employers, and they were able to have frank, productive conversations with training providers about the sometimes-opaque hiring policies and practices that often prevent employment of low-income people. One stakeholder mentioned that before this meeting, “no one could give a straight answer” about hiring practices at these firms. “Without a respected third party like SkillWorks acting as convener,” she noted, “individual training programs would never have been able to engage employers in this sort of discussion.” Through this convening, SkillWorks made a substantial impact on both the employers’ and the providers’ understanding of the issue.

SkillWorks has built bridges and formed partnerships across the industry.

Behind the scenes, SkillWorks staff have built and maintained relationships with leadership at the city of Boston and MassCEC. These agencies continue to work together on a Pathways Out of Poverty grant focused on a green on-the-job training collaborative to work with graduates of training programs.

SkillWorks contributed, directly or indirectly, to the capacity enhancement of multiple community-based training providers.

Through planning, policy, and small-scale implementation grants as well as formal and informal information-sharing at convenings and online, SkillWorks Green Jobs built the capacity of many organizations operating in the sector.

Much of the capacity building was long-term in nature, involving building relationships, networks, and knowledge rather than direct program provision. Stakeholders from across the system made it clear in their interviews that SkillWorks played the leading role in helping area training providers better understand and adapt to the evolving sector. Encouraging stronger relationships with employers was a critical aspect of capacity building. SkillWorks used its direct grants to encourage deeper relationships between providers and employers and used convenings to bring non-grantee providers together with

employers when possible. Multiple interviews confirmed that SkillWorks helped organizations better understand employer needs and constraints.

SkillWorks grants not only built the capacity for some organizations to deliver green workforce development, but also helped others determine that their entrance into the sector had been premature.

During Year 2, the staff from the Chinese Progressive Association's green job pilot program realized that they did not have the capacity to do workforce development successfully, so they left the field altogether and focused their efforts elsewhere. In Year 3, ABCD found that there was no real green manufacturing base in the Boston area and decided to further study other sub-sectors of the green economy before building another program. One interviewee lauded SkillWorks' ability to use lessons learned in the past to fund pilot programs for grantees to fully explore their potential in green jobs. He noted,

"SkillWorks was the leader in pushing people to look at the system's weaknesses. They learned more quickly than anyone that they were not going to do a good job by pouring a bunch of money into training programs to train 40 people for 1 job title [...] Making smaller planning and pilot grants was exactly the right thing to do. Many people used that money to determine that they weren't able to do this...and they got out of the game and I think that was a good thing."

Failure is an unavoidable part of the learning process. Even programs that disappear altogether leave their mark on the organizations and staff that ran them, hopefully helping them better identify and realize their potential in the future.

Challenges

SkillWorks Green Jobs Initiative has faced multiple challenges that have limited some of the outcomes anticipated over the three years. SkillWorks' challenges are a mix of external factors as well as strategic choices made by the Initiative.

The abundance of small employers looking to hire only one or two individuals makes training and placement extraordinarily challenging.

This ongoing challenge, voiced by numerous interviewees, caused training providers to have difficulty training participants with the proper skill sets in an efficient manner. Additionally, it is more laborious and difficult for training providers to connect with so many small employers to place their graduates. A potential value of SkillWorks investing in the green sector was to learn how to more effectively carry out workforce development in an industry with small employers and, ideally, create a workforce training model that could be used in other industries with primarily small employers. While SkillWorks tried to address this by funding several different models through these pilot programs, the programs did not yield the solution for training for positions with small employers. Considering the small size of these businesses, stakeholders agreed that workforce and educational organizations need to have a stronger mechanism for employer engagement.

The outcomes of the ABCD project helped to reinforce some of the challenges and needs for workforce development when working with small businesses. Robust partnerships with multiple employers would have provided diverse placement options for training graduates. For future workforce development efforts in the green sector, there will likely need to be an organization that could play more of a coordinator role in employer engagement to help training providers reach a wider set of employers and help them make deeper connections. As the green sector continues to rapidly evolve, and the funding stream for related training dries up, such an intermediary would be even more essential to help training providers find placements for their participants. SkillWorks could play such a role or it could help to identify an alternative organization to serve as an intermediary.

While SkillWorks has raised the awareness of employers and public sector partners of the need for pathways for low-income, low-skilled workers into green occupations, some suggest that it is still difficult for the lowest-skilled individuals to access opportunities in this sector.

Some training programs require participants to have a GED or to have reached another educational milestone. Several stakeholders mentioned that it was difficult for their target populations to even meet basic eligibility criteria for training enrollment. Without access to training programs, these individuals cannot work towards a career pathway. This issue surfaces the question of whether the highest need for low-income, low-skilled workers is green vocational training or, rather, adult basic education that would then provide individuals with the opportunity to gain skills to get them enrolled in training programs.

The recent decrease in funding for green workforce development activities has been limiting, considering the initial flood of funding for this type of work.

The initial flood of stimulus money for green jobs created issues of oversaturation. At the same time, the weak economy negatively impacted job development. Together, these factors did not create a stable landscape for green workforce development. Now, as the funding stream for the green economy has slowed and unemployment rates are improving, we are beginning to see a more stable environment. Nonetheless, this fluctuation in funding, mixed with a weak economy, has not been easy for training providers. One interviewee noted that the biggest challenge was ongoing funding as green funding has dried up as part of a “backlash.” “When the economy is good, contractors are more interested,” noted another interviewee. She went on to say that in times of scarcity, it takes a lot of work to get those contractors hiring from these workforce development training provider participants. Though, overall, stakeholders wish that more funding would be directed to green jobs workforce development, one grantee mentioned that there has been a silver lining in that “the lack of funds forces us to do things differently and collaborate more.”

The Initiative was designed on the premise that there would be a substantial increase in the number of green jobs available for low-skilled individuals in the near-term. The Initiative, therefore, focused on preparing training providers to meet that demand. Ultimately, more work may have been needed to build the demand side through grants, such as that to the BHA, which could eventually impact the number of job opportunities accessible to low-income workers.

Some of SkillWorks Green Jobs Initiative's later efforts, particularly in Year 3, demonstrated an effort to create new opportunities for low-income workers. The initial success of the BHA grant activity suggests opportunity for others to push to create public sector mandated opportunity for low-income, low-skilled workers by leveraging workforce prospects with existing policy. By building on existing policy, there is the potential to ensure workforce development and participant placement by writing workforce hiring expectations into contracts with employers.

In addition to the work at the BHA, SkillWorks pursued a few additional paths in Year 3 that have the potential to open new opportunities for low-income, low-skilled individuals. Through the CORI convening, SkillWorks was able to bring hiring barriers to the forefront to have a transparent discussion about pathways to lower the barriers to participant placement in jobs. The new research in lesser-known green industries may also stimulate demand. The wastewater study, for instance, showed a need to focus on growing demand, formalizing hiring, and leveraging employer power to create new opportunities for low-income individuals. Any future effort should seek out additional opportunities—take the models tested by SkillWorks and focus on increasing demand for low-skilled workers in the sector.

While many praise SkillWorks' strategic decision not to over-invest in weatherization-related workforce development, a potential downside is that SkillWorks did not fully capitalize on its convening role to bring together building trades unions with community-based providers to work through pathways into union apprenticeships.

Nationally, some communities were less hesitant to invest in weatherization training programs. In many cases, the participant outcomes have been quite disappointing from these efforts and have led to a high level of disillusionment of green sector promise. SkillWorks successfully avoided glutting the market with jobseekers trained in weatherization. However, one individual with knowledge of the progress of green workforce efforts in multiple cities nationally commented that there may be an unexpected downside for Boston's cautious approach. In cities that pursued weatherization training more aggressively, they worked more closely with labor unions, shaping pre-apprentice programs and developing clearer pathways into union apprentice programs. SkillWorks recognized the importance of developing collaborations with union training programs through its grant to the Chinese Progressive Association (which partnered with International Union of Painters and Allied Trades District Council 35) in Year 2, and in Year 3 with the grant to YBB (which links some of its graduates to union apprentice programs), but SkillWorks did not fully capitalize on its convening capacity to tackle the issues of access to the union apprentice programs. While this may have appeared a fruitless task given the deep benches of out of work union members, other cities appear to have made progress that positions them well for the recovery in building trades. A strong, positive relationship between the union apprentice programs and the workforce system, no matter what the driving cause of its development, can provide a

great deal of employment potential. However, this relationship is not likely to surface independently. One stakeholder noted,

“The unions don’t have a high opinion of community-based workforce training programs, and the workforce programs don’t understand how to get people into the apprenticeships. You need an impartial third party to help strengthen those relationships.”

Nurturing the connection to the unions can give training providers access to dozens of smaller contractors in the region. SkillWorks has not focused on building this relationship during this three-year Initiative but may want to consider this going forward.

CONCLUSION

SkillWorks Green Jobs Initiative effectively navigated a complicated context that included overzealous expectations of job growth, unrealistic assessments of the career path opportunities for low-income, low-skilled individuals into emerging clean energy jobs, and an over-supply of federal workforce training funds targeted for green jobs. SkillWorks balanced these market realities with funder expectations of making an impact on low-income individuals in the emerging sector. SkillWorks carved a niche in the emerging clean energy sector that focused on arming the stakeholders most able to impact low-income, low-skilled individuals with the tools to better serve the targeted population as job opportunities emerge. The tools that SkillWorks provided were primarily new relationships and new information. SkillWorks’ greatest success was in its role as convener with training providers and in its role as a partner with public sector players, both with the city of Boston and with MassCEC.

In concert with other sector experts and public stakeholders, SkillWorks played a critical role in building a more realistic view of the potential opportunities for low-skilled individuals to enter and advance in the clean energy sector. Together, they also heightened the understanding of the barriers and workforce development needs this population faces to succeed in the nascent sector. The local dialogue now places an emphasis on greening existing occupations and greening opportunities within already dominant local sectors. This changing dialogue has clearly been influenced by the learning and discourse spurred by the SkillWorks Green Jobs Initiative.

Consistent with SkillWorks learnings, the collaborative will likely fold its green efforts into its larger portfolio of workforce development initiatives. This reflects the fact that many workforce development opportunities related to clean energy involve adaptations to existing jobs in existing sectors. SkillWorks will explore opportunities within its existing sector partnerships to support greening of existing jobs. SkillWorks will remain open to exploring workforce development opportunities in other sectors, though SkillWorks would think carefully about the sector characteristics that would make that sector an attractive candidate for such an endeavor. Staff see potential to explore targeted green workforce development for sectors with large real estate portfolios that may necessitate retrofitting or other modifications to outdated current practices, such as maintenance, to reduce energy consumption or other forms of environmental impact.

While the changed focus from training for a green sector to training for the greening of existing occupations makes strategic sense for SkillWorks, it also signifies a retreat from some of the ambitious goals believed achievable in 2009. The shift is an acknowledgement that there are fewer new jobs required to meet the demands of a greener economy than originally anticipated. While there will be workforce development needs to retrain or enhance the skills of existing occupations to perform in more environmentally friendly ways, the hope that a greener economy would open many new opportunities for low-income, low-skilled workers has been significantly diminished. SkillWorks' future focus on seeking opportunities with large employers, with whom SkillWorks already has a relationship, is also a recognition that the three-year Initiative has not yet helped training providers "crack the nut" of serving sectors composed of small, fragmented employers with limited human resource or long-range planning capacity. This is an ongoing challenge that deserves further attention so that the workforce development field can access new opportunities for low-income, low-skilled individuals.

A final success of the SkillWorks Green Jobs Initiative was demonstrating the potential for a different model of philanthropy. SkillWorks and other funders should consider the value and applicability of the model to other contexts. Because of the complex conditions in the clean energy sector, SkillWorks was unable to make one to two large-scale workforce training grants, but instead, over the three years, made more than a dozen smaller grants for planning, pilots, and research. The model appropriately seeded capacity building, learning, and coordination in the emerging sector. Beyond direct grants, virtually every stakeholder interviewed considered SkillWorks' convening role a vital and valued component of the Initiative. As an intermediary convener, SkillWorks played a vital role in the industry, asking questions others do not ask, challenging stakeholders to reflect on existing workforce training models, and working with the appropriate parties to address industry tensions and issues in a collaborative, thoughtful forum. The forum addressing CORI issues was a prime example of SkillWorks using its convening power to move the sector forward. The model of seeding capacity and convening key stakeholders, separate from the specific sector it was intended to serve, warrants consideration for its replicability in other contexts. The challenge of this model that future funders will need to consider is the intensity of staff effort required to make the approach successful. Future funders of similar efforts should recognize that when creating a workforce development strategy for an emerging industry, the investment in program staff is as important, if not more important, than the specific grants issued.

As SkillWorks considers its future role in supporting green workforce development efforts, it would be wise to preserve and nurture the greatest asset developed in the last three years—a powerful network of relationships. SkillWorks has built a foundation of collaboration among key stakeholders that could enable the collective to act quickly should new industry needs arise or new funding opportunities surface. Without a dedicated green initiative, it is possible that the relationships built over the past three years could wane, particularly when staff changes at organizations bring new individuals to the table. SkillWorks should remain conscious of the valuable network built and dedicate sufficient time to ensure that the relationships continue. By keeping these partnerships active and dynamic, SkillWorks will be poised to mobilize a strong cohort of knowledgeable stakeholders to address future opportunities in the green sector as they emerge.