

# Detroit GreenWorks Solutions

## Creating Triple Bottom Line Impact

September 2012



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## Overview and Purpose

In the aftermath of the Great Recession, states and communities across the United States are looking for ways to create jobs and help to alleviate high rates of unemployment. They are experimenting with a myriad of growth strategies to transition into a more ecologically, economically, and socially sustainable future. The Detroit GreenWorks Solutions (DGWS) program is a case in point. Using seed capital from a US Department of Labor grant, the program is a community effort to invest in Detroit's workforce and economic revitalization through the green economy. The next wave of industrial innovation and opportunity is here, and DGWS is playing a critical part helping local businesses fill a growing market opportunity in the green economy with skilled talent from local communities – Detroit jobs for Detroit workers.

"These Pathways out of Poverty grants will help workers in disadvantaged communities gain access to the good, safe and prosperous jobs of the 21st century green economy. Green jobs present tremendous opportunities for people who have the core skills and competencies needed in such well-paying and rapidly growing industries as energy efficiency and renewable energy."  
~ Hilda Solis, Secretary of Labor

Detroit's economic landscape contains two compelling threads: enormous unemployment and poverty combined with extensive market opportunities in the green economy. Even before the recession, the City of Detroit faced high rates of poverty. According to 2000 Census data, 29.6% of families in Southwest Detroit and 32.9% of individuals were living below poverty, compared to 9.2% of all families and 12.4% of all individuals nationally. In the recession, Detroit not only lost major manufacturing jobs, it lost suppliers, services, and adjunct business jobs. In 2009, Detroit's unemployment rate was a staggering 28.9%.<sup>1</sup> At the same time, Detroit's green economic activity is growing faster than most U.S. cities. Jobs in green-related occupations in Michigan are projected to grow by 6.4% between 2006 and 2016.<sup>2</sup>

Economic recovery is eased when workers have the right skills for available jobs. Detroit GreenWorks Solutions designed its training program to be part of a career pathway and ensured that participants earned credentials with value in the labor market – two key ingredients in job placement success for its participants. The effective partnership structure ensured alignment of education, training, and employment services for training participants.

The American Recovery and Reinvestment Act Pathways out of Poverty provided \$4,000,000 in funding to create DGWS. The work of the DGWS partnership more than doubled this Department of Labor investment producing an estimated total economic value of \$10,118,873.<sup>3</sup> Detroit's GreenWorks Solutions training program presents a core investment in the larger story of Detroit's revitalization. The return to program participants, program partners, employers and the city's community of the DGWS program far exceeds the initial investment. This report describes DGWS' story through the triple bottom line - economic, social, and environmental – effects and impacts realized by the work of this partnership.

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<sup>1</sup> Detroit Free Press, 8.28.2009, "Nearly 3 in 10 in Detroit Need a Job," p.1.

<sup>2</sup> State of Michigan Department of Energy, Labor and Economic Growth. Michigan Green Jobs Report. 2009.

<sup>3</sup> This is a conservative figure with the vast majority of these variables were calculated for a 1 year basis. Variables included participants' total salaries between July 2010 and August 2012, new investments secured, annual reduced state incarceration costs, and annual homeowner utility and energy savings.

## About Detroit GreenWorks Solutions

In January of 2010, the DGWS was created with the leadership team from Southwest Housing Solutions (SWHS) and funding from the U.S. Department of Labor, American Recovery and Reinvestment Act, Pathways out of Poverty grant. The program:

- Aimed to serve 1,200 individuals, train 425 participants, and place at least 360 individuals in unsubsidized green jobs over the course of two years.
- Targeted some of the hardest to serve populations in southwest Detroit, including the unemployed, underemployed, disadvantaged, homeless, high school drop-outs, veterans, and returning ex-offenders.
- Invested in the green industries and occupations of energy efficient building construction and retrofit, deconstruction and material reuse, energy efficiency assessment, forestry, and landscaping and agriculture.

Three contextualized training programs were created in partnership with employers in the areas of weatherization, deconstruction, and landscaping/urban agriculture. Training programs ranged from 8 to 12 week intensive courses, as well as the option to enter Henry Ford Community College.

Developmental courses in Math and Communication skills were offered to address academic

“Through our collective efforts, we have provided education, training, support and connections to jobs for hundreds of people who were seeking opportunity and a chance to rejoin the workforce.”

~ Mary Freeman, Senior Manager of Workforce Development Programs, Southwest Housing Solutions

preparedness. Participants could also take additional coursework to progress along a career path within the college’s Deconstruction, Weatherization, Energy Auditor and Renewable Energy certificate programs. In addition to training, participants received job placement assistance and a variety of supports to resolve barriers to employment through SWHS’s Center for Working Families. This included housing assistance, child care, access to transportation, financial management, computer literacy, GED preparation, employment plan development, resume writing, and interview preparation.

### Quick Program Outcomes Data

Performance Metric Total	Target	Actual	Achievement Rate
Served	1,200	1,224	102%
Entered Training	425	449	105%
Completed Training	410	338	83%
Attained Credential	400	335	84%
Individuals Placed into Employment	360	191	53%
6 Months Retention	310	108	35%

Various elements of the DGWS training program’s impact have been documented in promising practices profiles shared with the over 250 ARRA Grantees; featured during the 2010 and 2011 ARRA Peer Learning Institutes; presented during the May 2012 Good Jobs Green Jobs Conference, the October 2011 National Council of La Raza’s Workforce Development Conference, and the 2012 Detroit Local Initiatives Support Corporation (LISC) Sustainable Communities Conference; and highlighted in a Detroit Regional Workforce Fund paper.



## Successful Partnership Building

“The partnership makes this special. Everyone was committed, so Southwest Detroit residents had a shot at getting trained for green jobs which would add tremendously to the community.”

~ Linda West, Director of Workforce Development at Southwest Housing Solutions

Detroit GreenWorks Solution’s partners understood that building a 21<sup>st</sup> century workforce is something no one partner can do alone. It is something that must be developed with strong, cross-agency partnerships. According to Collective Impact theory, progress can be made in the alleviation of many of our most serious and complex social problems when key entities in the community come together to design solutions around a common agenda.<sup>4</sup> Partners recognized the need to work with a broad range of organizations that have great expertise, reputations, and leveraged resources. They knew it was critical to establish a clear vision and goals for the

partnership from the start, involve employers directly, and ensure accountability and commitment throughout the grant period. Detroit GreenWorks Solutions partners agreed that one of the most important contributing elements to the positive impacts created within the community was its strong partnership. Key partners<sup>5</sup> included:

- Grant lead, Southwest Housing Solutions, a nonprofit organization and provider of human services, housing, and economic development resources, is nationally recognized as a model of comprehensive community building. The organization was established in 1996 with the goal of revitalizing the southwest Detroit community through strategic planning, development and management of affordable housing and commercial property. Southwest Housing Solutions provides housing to low and moderate income residents, advocates for cultural development through mixed use projects, and implements neighborhood preservation initiatives. Additionally, SWHS provides services through its Housing Opportunity Center for homebuyers and foreclosure prevention, and is a designated Center for Working Families site that offers a bundled approach to accessing economic support and financial literacy services.
- Landscape program trainer, The Greening of Detroit (Greening), a nonprofit organization established in 1989 to guide and inspire others to create a ‘greener’ Detroit through planting and educational programs environmental leadership, advocacy, and by building community capacity. The Greening of Detroit has shown how the environment can play a crucial role in the city’s revitalization, from economic development to job creation, and from feeding the hungry to creating sustainable neighborhoods.
- Program education and training provider, Henry Ford Community College (HFCC), established in 1938, is dedicated to the education, access, and enrichment of students and community. Henry Ford Community College is an education institution with the agility to develop and deliver innovative education solutions which are responsive to the needs of its constituents.
- Deconstruction and weatherization program trainer, The WARM Training Center (WARM) is a nonprofit

“Partnership is the new leadership. We had deep collaboration with partners that had shared input and a partnership driven as a collaborative not as one single lead entity. We worked with good partners who could deliver and do what they do best.”

~ Bob Chapman, Executive Director at WARM Training Center

<sup>4</sup> Kania, John & Mark Kramer. *Collective Impact*: Stanford Social Innovation Review, Winter 2011.

<sup>5</sup> Greening, Henry Ford, WARM, and Southwest Solutions participated in interviews for this paper.

organization that promotes the development of resource efficient, affordable, healthy homes and communities through education, training, and technical assistance. WARM's services include: education, technical assistance, green jobs training, and resources.

- Employment services partner, the Detroit Workforce Development Department delivers cost-effective, high quality employment, growth sector/high demand training, and educational services to Detroit residents in an effort to promote economic self-sufficiency and supply qualified talent to businesses.

Additional partners included:

- Michigan Laborers Training and Apprenticeship Institute
- DTE Energy
- O'Brien Construction
- AmPro
- Blanket Insulation
- Contractors of DTE
- Home Depot
- Inspired Green
- Michigan Department of Transportation
- Novi Insulation
- Salvation Army
- Vetbuilt

## Creating Shared Value: Going from Outcomes to Impact

Typical program evaluations tend to have a narrow focus on the outcomes for participants of training programs. A more holistic framework is better suited to articulate the many benefits and impacts the DGWS program had within Detroit's unique context. The concept of shared value focuses on the connections between societal and economic progress and is found at the nexus of partnership capacity and expertise, community need, and business opportunities.<sup>6</sup> The DGWS partnership recognized these relationships and has maximized stakeholder shared value and benefit through its strategic program design, which concentrated on enhancing local corporate competitiveness, while simultaneously advancing community economic and social conditions through skill development and career pathways for residents.

The following examination of the DGWS training program is meant to provide a window into the impacts made by the program that go beyond the common federal outcomes<sup>7</sup> from the first cohort that graduated in July 2010 through August 2012. The information is drawn from a thorough review of program performance reports and participant data; interviews with partners, employers, and participants; and examination of literature from the field. The chosen impact indicators were influenced by the Global Reporting Initiative framework, which offers a universally recognized reporting platform for measuring, monitoring, and reporting triple bottom line activities. These specific metrics add up to tell DGWS's impact story from an environmental, economic and social perspective, while also illustrating the multiplier effects that have stimulated additional benefits and returns for participants, employers, partners, community members, and the region.<sup>8</sup>



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<sup>6</sup> Porter, Michael & Mark Kramer. *Creating Shared Value*: Harvard Business Review, January 2011.

<sup>7</sup> These are typically the number of people served in the program, number of participants receiving training, number completing training, and number of people placed in a job, and retained in a job.

<sup>8</sup> A non-profit organization that produces one of the world's most prevalent standards for sustainability reporting. Considered the world's leading benchmark for measuring, monitoring, and reporting triple bottom line activities.

# Detroit GreenWorks Solutions: By the Numbers

**1224**

Served

**449**

Entered  
Training

**338**

Completed  
Training

**335**

Attained  
Credential(s)

**191**

Placed

**256**

Jobs

**108**

Still working  
after 6 months

**\$10,118,873**

Estimated total economic value to community  
from original \$4M investment

### Top 10 Industries

(of 256 total jobs participants were placed into)

Industry	# of Jobs
Nonprofit (includes some landscaping and construction jobs)	79
Construction	55
Customer Service	36
Manufacturing	35
Landscaping	16
Warehousing	8
Education	6
Hospitality	4
Retail	4
Government/Public Sector	3
Other	10

**90%**

Amount of building materials  
diverted from landfill through  
deconstruction projects

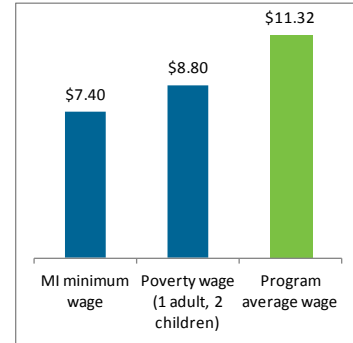
**2,436**

Homes weatherized

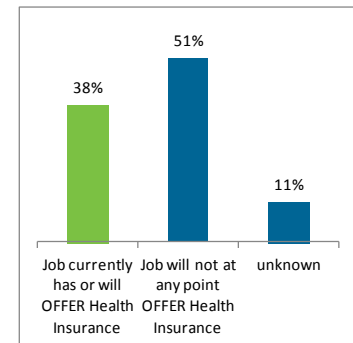
**5,000**

Trees planted

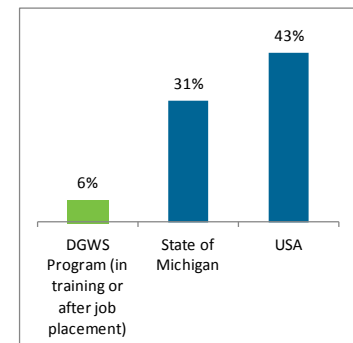
### Wage Comparison



### Health Insurance Offerings



### Ex-Offender Recidivism Rate



**65%** of participants improved their score in at least one NCRC WorkKeys area



## Not Giving Up



Giving up was not an option for Greening participant Judy Zawislak—even though at times she felt that her options had run out. Judy had been unemployed for 18 months after working 23 years in publishing. The realities of dealing with long-term unemployment weighed on Judy until she fell into depression. “I felt worthless. At this point in time I wasn’t even getting rejection letters, I was rejected from the rejection letters.” Judy knew she had to do something, so when she learned of the DGWS Landscaping program, she signed up. Judy expected to learn some new skills, but did not expect to find her participation to be therapeutic. “My class members were very supportive and could relate to my situation. Everyone wanted to better themselves.” Although Judy admitted to being a little apprehensive about returning to school after being away for quite awhile, she felt that her experience was different from the past since much of the learning was hands on and out in the field. “We had live examples of everything we were dealing with. We worked on a nursery that was abandoned in the 1970’s and got it back together 40 years later. They really prepared us for what we would be working on in real life.” Since signing up to participate in 2010, Judy has been employed with Greening and has been promoted twice, first from Crew Leader to Course Instructor, and now to her current position as a Workforce Development Program Manager for Adult Education Programs. Her employment has given her some relief. She now feels more secure especially since she did not have health insurance in the past and is a cancer survivor.

Judy has found that her promotions are one of the many positive impacts she’s experienced. She is now more engaged with the community, able to talk with others and share advice. She has also noticed that when others see a yard or lot getting worked on it causes a trickle affect. “When we work on a community project, others in the community start to pitch in and take pride in the neighborhood. It makes the neighborhood safer because you can now see who is living there and not hiding behind it.”

Judy no longer feels withdrawn from the community she loves and feels that she has made an impact. “I’ve been here all my life and want to stay here. The program helped me to rebuild my state of mind; I’m grateful for the opportunities it has given me.”

## Economic Impact

Whenever new income is injected into an economy, it starts a ripple effect that creates a total economic impact that is larger than the initial influx. This is because the recipients of the new income spend some percentage of it within the region, and the recipients of that share spend some of it within the region, and so on. Similarly, when employers have access to pools of skilled workers and re-evaluate the way in which they connect with and retain talent, they are more likely to achieve business goals and become a sustainable, long term organization that can be self-renewing.

The economic impacts of the training program contributed to the overall level of economic activity in southwest Detroit, including effects on people, families, businesses, and industries.

**INDICATOR: ECONOMIC DEVELOPMENT IN AREAS OF HIGH POVERTY**

**Participant Placement and Retention**

Employment affects a range of standard of living and quality of life metrics that shape the feelings and perceptions about a community or region, which in turn can influence the growth of the area. Detroit GreenWorks Solutions placed a total of 191 graduates in 256 jobs, (a graduate can be placed into more than one job over time, if the jobs ends and a new one starts, for example). Seventy-two percent of these participants were employed three months after their initial placement, and 57% were employed at six months post- placement.<sup>9</sup> The high total number of job opportunities that participants were placed into reveals the value of the workers in the labor market, as well as the strengths and abilities of the program’s job developers to create relationships with employers, locate opportunities, and prepare participants.

Participants were placed into jobs in a variety of industries, although the majority were related to their field of study. The top 5 placement industries were nonprofit (including landscaping related job placements within Greening of Detroit, and weatherization related job placements within WARM), construction, customer service, manufacturing, and landscaping.

**Top 10 Industries**  
(of 256 total jobs in which participants were placed)

Industry	# of Jobs
Nonprofit (includes some landscaping and construction jobs)	79
Construction	55
Customer Service	36
Manufacturing	35
Landscaping	16
Warehousing	8
Education	6
Hospitality	4
Retail	4
Government/Public Sector	3
Other	10

In addition to the 256 jobs that were created for DGWS participants, DGWS partners hired an additional 33 full-time and 14 part-time staff for positions such as case management, training, and program administration.

**Stimulated Entrepreneurship and Revenue for Small Business**

Community-based approaches like DGWS are emerging as a way to make sustainability-based market and business opportunities viable for entrepreneurs; this in turn creates jobs that otherwise would not

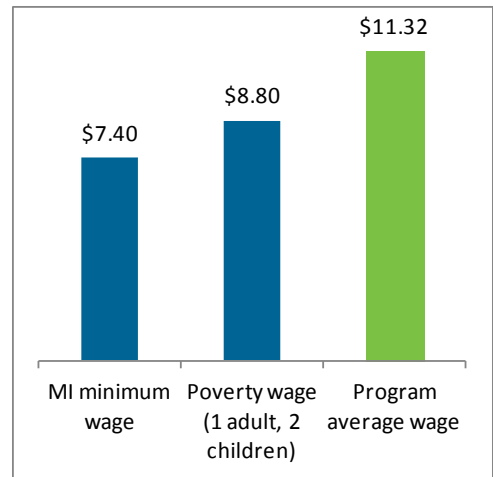
<sup>9</sup> Note: We used a point-in-time measure to evaluate retention, which looked at if a person was employed *with any employer* at 90 days and 180 days after placement.

exist. Within the DGWS program 11 participants engaged in businesses start-ups in a variety of industry and service areas including demolition backfill, landscaping, insulation, and cleaning.

### INDICATOR: ECONOMIC WELL BEING

#### Received Local Minimum Wage or Higher at Time of Entry

Earning a wage that allows workers and their families to become self-sufficient creates a great sense of pride and helps to end cycles of poverty. All DGWS workers received the minimum wage of \$7.40 per hour or greater. The average wage earned was \$11.32 per hour which is well above the poverty wage for 1 adult and 2 children in the city of Detroit.<sup>10</sup> Wage earnings coupled with financial literacy and credit repair resulted in 73 DGWS participants going from a zero net income to a positive net income; setting them on the right path toward self-sufficiency.



#### Full-time Work Status and Promotion

Of the 256 job placements, 77% of the participants were placed in full-time positions, 9% worked part-time, 10% were either temporary or seasonal workers, and 4% was unknown. Of the 191 participants placed, there were 17 promotional job advancements.

### INDICATOR: INCREASED VALUE

#### Increased Employer Operating Efficiencies

Participant employment was the most critically important goal of DGWS. Employers also realized some indirect impacts through engagement in the program and curriculum development activities.

Members of the DGWS Employer Advisory Council were able to interact with each other and discuss shared problems. This relationship building resulted in employer members coming together to negotiate contract opportunities with each other, something that had not happened in the past.

The DGWS program served in a dual capacity, serving workers and providing business solutions. The program became a leveraged resource for businesses as it recruited, trained, screened, and identified ideal matches for job placement opportunities. It managed employee on-boarding functions, resulting in better business productivity and retention. In effect, the program became a talent hub; a streamlined, centralized system for employers to draw from which saved them time and money.

#### Increased Market Opportunities

Detroit GreenWorks Solutions successfully attracted \$4 million in green jobs training dollars to the region. The positive results of this work has allowed SWHS and its partners to continue the program with an additional \$850,000 it has secured through a Department of Labor funded Green Jobs Innovation Fund award.

Southwest Housing Solution's Center for Working Families has received \$62,602 in additional funding in 2012 from the Local Initiatives Support Corporation (LISC) Social Innovation Fund because of the successful DGWS outcomes. Southwest Housing Solutions was also awarded a \$12,500 worker retention grant from the LISC to highlight their promising practices nationally.

<sup>10</sup> Poverty in America Living Wage Calculator, <http://livingwage.mit.edu/places/2616322000>.

Southwest Housing Solutions was asked to partner with Wayne County's Neighborhood Stabilization Program (NSP3) and will receive \$950,000 to deconstruct or demolish approximately 40 houses in the Detroit region. The NSP3 grant received by SWHS will create about 20 jobs over a two year period. The work of DGWS and its partners have demonstrated the value of their green training as NSP is only looking to hire individuals who are already trained in deconstruction.

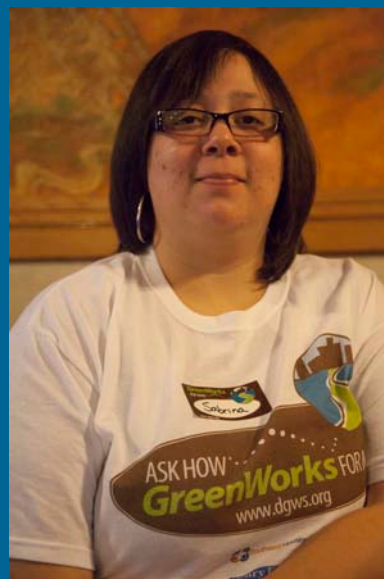
The Greening of Detroit is not only a program partner, but also an employer. Since hiring DGWS graduates, they have increased their contracts by 35%. They no longer need to pass up opportunities because of a lack of talent. They have been able to grow their workforce and employee skill capacity as a direct result of DGWS. Lionel Bradford, Vice President of Operations, said, "We like to think that we are in the forefront of training people and making them more environmentally conscious and job ready. We are providing employers with a pool that is ready for the workforce. This is a huge gap we're filling in Detroit."

Another partner and employer, WARM, also experienced growth opportunities through its involvement with DGWS. With properly trained graduates they have greater opportunities to apply for county and city level deconstruction contracts and the ability to do the work in a way that is strongly aligned with industry standards.

## Win-Win Matchmaking

By providing a pool of candidates that are work ready and trained in their respective fields, hiring employers experienced some cost savings associated with reductions in staff time dedicated to training new employees, as well as turnover related costs. Chris Gilbert, Regional Professional Sales Manager at Home Depot partnered with DGWS as a way to get their name out into the community and to connect with jobseekers. They realized that this was also an opportunity to get exposed to different avenues of employing people without the usual resume waiting and routing process. "Through the traditional process you get a lot of people who interview and you have to make a long-term decision based on a small amount of exposure during the interview. Southwest Housing Solutions gave us an organized process to fill positions with good talent. They did the vetting and helped to match us with the right people; a win-win for us." Chris went on to say, "We found that we did such a bad job of hiring people off the street and having to do the hiring process all over again which is an added cost. We found that the people from the program had a good work ethic, additional job and interpersonal skills, and the potential to move up one to two levels. A candidate coming out the program has much less turnover and much longer hire opportunities and retention."

Chris highlighted the work of one of the company's employees, Sabrina Blight, a DGWS graduate. "Sabrina's customer skills have been a benefit. She went from temporary status to represent one of our core departments. She moved to a permanent employee because she brought customer service skills, but is also able to bring in her forestry and horticulture skills to provide customers with product information, which gives her credibility in a retail environment. It's good to have someone with readymade skills that can be applied within a customer facing area."



## Social Impact

Employment is just one important factor in the larger universe of individual and regional sustainability. Program partners knew that training, education, access to healthcare, receipt of industry recognized credentials, and supportive services were essential and significant human capital elements of the program's impact.

This section explores the social dimensions of DGWS program impact. This includes the impacts on the people (human capital) and social systems, directly and indirectly involved.

### INDICATOR: ENHANCING SKILLS AND KNOWLEDGE IN A TARGETED COMMUNITY

#### Credential Attainment

In Michigan, only 36.4% (just over one in three) of the state's 5.2 million working-aged adults (25-64 years old) hold at least a two-year degree, according to 2010 Census data. However, data from *Help Wanted*, a report by the Center on Education and the Workforce at Georgetown University, indicates that 62% of Michigan's jobs will require postsecondary education by 2018. That means a doubling of the number of Michigan residents with education beyond high school is needed for them to have the right skills for available jobs. The DGWS training program helped hundreds of program graduates attain industry relevant credentials, making the pathway to higher education and career advancement a possibility for many who thought it was out of reach. Furthermore, the U.S. Census Bureau has estimated that having some postsecondary education or training adds nearly \$250,000 more in income than a high school diploma over the course of a person's working life.<sup>11</sup> This ultimately results in more money spent and circulated in the community. Detroit GreenWorks Solutions graduates are making a real impact in their communities by increasing their skills and doing their part to rebuild Detroit, one credential at a time.

Three hundred thirty five participants or 84% of the target goal received at least one credential. The credentials awarded varied by program focus and included certificates for Michigan National Career Readiness Certificate, Green Advantage, MIOSHA, CPR, and First Aid; certification in Building Performance Institute, Home Energy Rating System, Weatherization Specialist, Energy Audit, and Landscape Industry. In addition, participants in the weatherization training earned 1 college credit for the non-credit courses they took and up to 4 credits per course for those courses taken at HFCC.

These credentials gave DGWS graduates a competitive edge in the marketplace. Even what might be thought of as a typical everyday credential provided an advantage for participants. For example, many work crews need at least one person who has a CPR credential. Program partners also found that having



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<sup>11</sup> The College Payoff: Education, Occupations, Lifetime Earnings, Anthony Carnevale, Stephen Rose, Ban Cheah August 5, 2011.



a driver's license greatly increased the probability of employment since many worksites operate large vehicles and trucks. In fact, the collaborative found that failure to have a driver's license was a greater barrier to employment than a felony conviction. Detroit GreenWorks Solutions leveraged \$7,430 in micro grant funding from the United Way for Southeast Michigan to help alleviate driver responsibility fees; and car repairs and purchase to help seven DGWS participants get back on the road to work.

### Training and Awareness

The program reached 83% of its training goal with 338 training completers. Participants were also given the opportunity to continue their education with the help of scholarships. Henry Ford Community College awarded 91 scholarships to 44 participants totaling \$54,540 to help participants interested in pursuing additional green training.

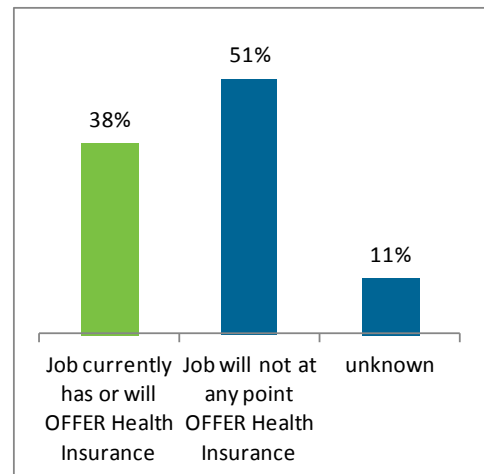
To qualify for their National Career Readiness Certificate, DGWS participants took WorkKeys tests in the areas of Applied Mathematics, Locating Information, and Reading for Information. Beginning with the ninth cohort in March 2011, participants also took a WorkKeys post test. Of the 78 participants that took the post test, 65% increased their level score in at least one WorkKeys area.

A recent article in the Wall Street Journal noted that during the recent downturn and weak recovery, many employers have been swamped with applicants and have raised the education requirements for some jobs to help distinguish the strongest candidates. For some employers, hiring more educated workers means reduced training costs.<sup>12</sup> The partners at WARM have long understood this employment advantage opportunity and responded by preparing DGWS participants with the specific skills demanded by employers. WARM Training Center realized that there are many regulations in place for what constituted a properly weatherized house, but no regulations in place to define a properly trained weatherization worker, so they made their training the gold standard for regional employers. They recognized that there are unemployed jobseekers such as carpenters and roofers looking to enter into weatherization or deconstruction careers, but who lack the proper unique needed skills. WARM Training Programs Manager Chris Rutherford noted, "We raised the level of standard for employees and in the long term that will have an effect on wages. When you have to know something to get a job it tends to drive wages up. We are also changing the way employers look at talent and who they hire."

### INDICATOR: HEALTH, SAFETY, AND WELL BEING

#### Receive Healthcare Benefits

The concept of shared value recognizes that when employers help to address societal concerns it can yield productivity benefits for them. For example, when a company invests in a wellness program, society benefits because employees and their families become healthier, and the company minimizes employee absences and lost productivity.<sup>13</sup> Thirty-eight percent of the jobs that participants were placed in offered or will offer employer supported health insurance. Fifty-one percent will not offer the benefit and a remaining 11% is unknown. To assist DGWS participants that do not receive health benefits, SWHS's Center for Working Families connects them with important public resources so that they remain healthy and can productively contribute in the workplace.



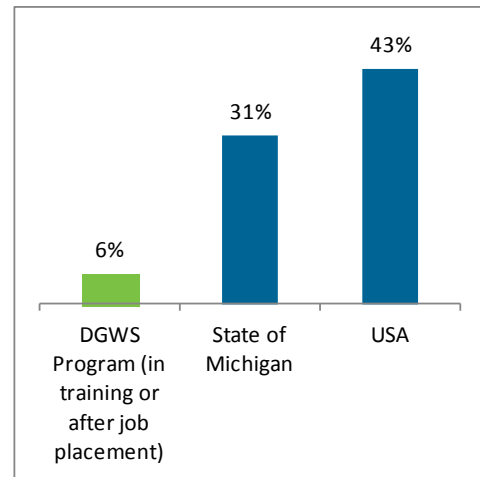
<sup>12</sup> The Wall Street Journal August 29, 2012, *Gap Hurts Job Hunters*.

<sup>13</sup> Porter, Michael & Mark Kramer. *Creating Shared Value*: Harvard Business Review, January 2011.

## Underserved Populations

One of SWHS's primary focus areas is affordable housing and homeownership. Meeting the basic needs of shelter is essential for program participant training success. Detroit GreenWorks Solutions partners were able to place 31 previously homeless people into permanent housing.

The program also helped to provide training and job opportunities for people with prior criminal records. DGWS served 125 ex-offenders. Of those participants, 57% were placed in jobs. Ninety-four percent of the 125 did not reoffend while attending training or after job placement. This is a very low rate of recidivism, and is an indicator of the program's positive impact on these workers, neighborhoods and the state's economy.<sup>14</sup>



### From Stigma to Supervisor

Prior to joining the DGWS program, Isaac Lott spent the last 15 years in prison. He experienced firsthand the stigma and rejection attached to being an ex-offender. Unemployed and living in a temporary housing facility to help with addiction recovery, Isaac was referred to DGWS by a friend who had graduated and been placed in employment. Isaac signed up, and by May 2011 he had successfully completed the Weatherization/Deconstruction training program. In July 2011, he was hired by WARM as a Deconstruction Crew Worker. He has since received two promotions, and is currently the Deconstruction Site Supervisor.

In addition to completing the program and finding employment, Isaac took advantage of many other supportive services including a micro grant to help pay off his driver's responsibility fees. From working with a program financial coach, he was able to create a savings plan which allowed him to pay off all of his outstanding child support. Isaac believes the program was a life saver and says, "I've taken a lot from the city, so I want to give back."

<sup>14</sup> The Pew Center on the States, State of Recidivism: The Revolving Door of America's Prisons, April 2011.

## INDICATOR: INFRASTRUCTURE DEVELOPMENT

### Increased Partnership Operating Efficiencies

As a result of the DGWS partnership, WARM increased the number of its instructors, thereby expanding their capacity to conduct green training. Their participation in DGWS also led to WARM's designation as a National Weatherization Training Center. This designation allows WARM to train contractors who need to sharpen their skills and keep up with changes in techniques and regulations. The designation also helps WARM enhance their weatherization training, since they remain knowledgeable and current on employer needs and federal and state regulations.

Henry Ford Community College was able to expand their course offerings as a result of their partnership with DGWS. The college developed a for-credit Deconstruction course offered through its Architecture Department. Additionally, with academic support, grant participants were able to enroll and complete its Weatherization and Energy auditing course. Tricia Llewellyn, Director of Workforce Development, said, "As an educational institution in the Detroit area, we have historically provided programs and training for the new Michigan economy and now that includes weatherization, energy auditing and deconstruction. Remaining abreast of innovation, meeting students where they are, and being a part of this emerging green economy is important to us."

Before this Pathways Grant, SWHS had a disjointed service model where those seeking supportive services would need to visit multiple times, receiving services in a particular order. Through their work with the Pathways Grant, SWHS restructured its Center for Working Families supportive services and integrated them with the skills training services. This change has raised retention of its clientele. Today their supportive services center is one of the top local support performers in placement and one of the top three in the nation for client financial outcomes.

### Increased Market Presence Experienced by Partners

Not only do effective partnerships leverage the strengths of each partner to deliver shared impact, but at their best, they allow the partners to learn about each other deeply, setting the stage for future collaboration. Effective partnerships also help to increase program goal awareness and form new collaborations to deepen and widen program impacts.

Through the work with DGWS, most partners engaged more broadly with key regional stakeholders. As a result, several DGWS partners have chosen to increase their engagement in addressing the many facets and opportunities of the deconstruction industry by forming the Detroit Area Deconstruction Steering Committee. The committee is working to create a national symposium to discuss best practices and to share lessons learned.

Prior to the Pathways Grant, WARM's job placement rate was extremely low. After partnering with the grant, WARM experienced a job placement rate of 75% for its weatherization and deconstruction placements. The WARM Training Center strengthened its employer relationships and connections through guidance from DGWS Employer Council members.



## Environmental Impact

The environmental impacts of this paper focus on the sustainable products and processes DGWS created that help to reduce negative effects on the environment. The paper also captures the various positive indirect effects for people and the local economy.

### INDICATOR: MATERIALS AND ENERGY EFFICIENCIES

#### Reductions in Contaminants and Pollutants

Trees are the Earth's natural air filters. Tree foliage reduces particulate matter from the air, including dust; absorbs carbon dioxide; and produces needed oxygen. Detroit GreenWorks Solutions landscaping participants planted over 5,000 trees that help remove harmful contaminants in the air and in the ground. This tree planting has resulted in the removal of over 10,000 pounds of pollutants from the air and reduced storm water runoff cost of more than \$50 million.<sup>15</sup>

In addition to diverting waste materials from landfills, deconstruction techniques taught through the DGWS program also contribute to pollution reduction and the reduction of green house gases in particular. When materials are recycled instead of put into a landfill, it reduces pollution created via manufacturing. Reusing wood preserves forests and their air filtering capacity. According to calculations provided by WARM, deconstruction projects from DGWS training resulted in the equivalent of:



- A reduction of 147,420 lbs of carbon dioxide (CO<sub>2</sub>) from the air.
- Removing the air pollution created by 12.25 cars on the road for a year.
- An air pollution reduction produced from 15.20 acres of forest.

According to WARM, energy savings from the weatherization of 2,436 homes is estimated to result in a reduction of 83 million lbs of CO<sub>2</sub> from reduced fossil fuels, either in the home (e.g. natural gas) or at central power stations to produce electricity. This is equivalent to:

- 6,919 cars removed from the road for a year.
- The air pollution reduction from 8,586 acres of forest.

#### Energy Efficiency Cost Savings and Reduced Waste

Declines in the regional economy left formerly active neighborhoods with abandoned home sites and land. Detroit GreenWorks Solutions used this problem as a major opportunity for program

<sup>15</sup> Data calculated by Greening of Detroit based on The Center for Urban Forestry Research, The US Forest Service.



participants to remediate the land and deconstruct deserted structures in a new way. DGWS provided the skills needed and homegrown talent to find new life for abandoned sites.

Deconstruction is defined as the process of removing a building by taking it apart to recover building materials for creative reuse and recycling, rather than demolishing it. It has tremendous job creation potential, since depending on methods used and the extent to which materials are salvaged, 2-8 direct jobs are created compared to each job in standard demolition.<sup>16</sup> It also offers benefits such as reduced disposal costs, reduced impact to site, and conserved landfill space.<sup>17</sup> DGWS participants who chose the training path in deconstruction acquired the skills to excel in this new field. Using conventional practices, the demolition of an average home may produce 100 tons of debris, nearly all of which is usually sent to a landfill. Using the deconstruction techniques learned in the DGWS program, participants were able to divert 90 tons of debris from landfills per deconstruction project. They also saved 1,260 Million Metric British Thermal Units (MMBTUs) of embodied fossil fuel energy per deconstruction project.

DGWS participants who chose the weatherization training path learned techniques such as duct sealing and balancing, insulation install, heating systems maintenance, and heat loss mitigation. Two hundred and ninety-six DGWS graduates weatherized 2,436 homes (including their own homes). According to calculations provided by WARM, this resulted in an annual utility savings of \$437 per home, a discounted lifetime energy savings of \$3,917 per home, and an additional \$3,466 of non-energy savings per home. Additional impacts include a total of:

- \$1,064,532 in annual utility savings.
- \$9,541,812 in lifecycle energy savings.
- \$8,443,176 in lifecycle non-energy savings.

Trees planted by DGWS landscaping participants saved home owners \$50,000 in annual energy savings by creating cooler air temperatures resulting in less demand on energy sources for cooling.<sup>18</sup> Homes shaded by trees use less energy for cooling which results in lower monthly utility bills in the summer and reduced need for the utility to increase power generation to meet peak load demand. As homeowners save on their utility bill it gives them additional funds to spend in the community.



<sup>16</sup> Community-Based Job Creation: Creating Fertile Economic Gardens and Enabling Local Resident Entrepreneurs in Tough Times, Corporation for a Skilled Workforce, October 2011.

<sup>17</sup> Deconstruction - Building Disassembly and Material Salvage: The Riverdale Case Study, US Environmental Protection Agency, June 1997.

<sup>18</sup> Data calculated by Greening of Detroit based on The Center for Urban Forestry Research, The US Forest Service.



## Building for the Future

Pedro Martinez came to Michigan in search of a better life for himself and his family. Driven out of his Chicago high school without graduating because of the pressures and violence of gangs, Pedro learned of the DGWS program from a cousin who participated. After attending the orientation, Pedro signed up. He realized that he had to overcome some skill barriers and the DGWS' Weatherization pathway program helped Pedro build key skills. "I was bad with math and an instructor from the college came and I learned so much. We also did interviewing and computer work and now I want to go for my GED." With the help of DGWS job developers, Pedro landed a sales job at Brooks Lumber and is now able to pass on valuable costs savings information to customers. "I feel much more confident and helpful to my customers. I can show them how to save money by buying the right kinds of light bulbs and explain which types of insulation work better, and how to cover up holes. I never really understood how much energy and money you could save until I went through the program."



Pedro has now become the family recruiter for DGWS and is telling other family members about the program. The training and position at Brooks Lumber has helped Pedro transform his life. "They are making me a better person and brought my family closer together. It has given a chance for my family to move out of a bad neighborhood and into a neighborhood where I can let my kids play outside safely. My kids grades also improved a great deal once we moved. This is a big difference."

Pedro wears his Brooks Lumber shirt with pride. "I've always been a follower and now I believe I can teach people to work hard. The company shows me appreciation and it feels good."

## Recommendations for Scaling and Sustainability

The green economy is being powered by organizations preparing people for employment opportunities, and embedded and sustained in creative ways by innovative training models like DGWS. The collaborative work of DGWS partners created significant triple bottom line impact with a total economic value of \$10,118,873 for people and businesses in Detroit. Program partners are committed to helping grow green jobs in the region and haven taken a thorough approach to providing 21<sup>st</sup> century skills and industry relevant training for Detroit workers.

The DGWS collaborative has great opportunities to expand its training program and reach more workers. Only 45% of Detroit Metro clean-economy occupations can be filled by people with a high school diploma or less. Over half will require some training beyond high school.<sup>19</sup> Detroit GreenWorks Solutions is working to address Detroit's low saturation of adults with post-secondary credentials so that they meet the requirements to grow green economy industries. The collaborative can continue its training program through new dollars and partnerships from the newly awarded Green Jobs Innovation Fund grant. Additionally, according to DGWS performance metrics, there is considerable opportunity to target and recruit untapped labor markets such as women, as they were most likely to complete the green training programs.

DGWS partners can help promote the acceleration of job creation in the green economy by continuing to place an emphasis on the following key community-based policy strategies:

### Enable It.

**Enable Sustainable Industry.** Policies and incentives that create mainstream market demand for sustainable industry technologies, or at least make them a viable option, will continue to be important in the short-term, particularly in light of the general state of the economy. For example, changing the city's demolition contractor bidding specifications to encourage deconstruction would help enable this market.

### Build It.

**Support Community Based, Sustainable Business Models.** In cases where traditional economic development has left unmet market opportunities, community based approaches may be more effective at making sustainability-based market and business opportunities viable, thereby creating jobs that otherwise would not exist. For example, community-based partnerships and enterprises can prove the value of deconstruction of homes (vs. demolition) and create many more jobs than the status quo as a result.

### Support It.

**Coordinate Sustainable Industry Engagement and Talent Solutions.** Coordinating the engagement of businesses involved in growing emerging industries of the green economy is critical to ensure their talent needs are met and that education and training programs are industry-based and lead to jobs for their program participants. Cluster- and sector-based partnerships can help address critical needs across a range of businesses.

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<sup>19</sup> Michael DiRamio, Coxen Tammy. Working Toward a Sustainable Detroit: Investing in Sustainable Industry and "Green Collar" Careers for Residents in Detroit.

### Supply It.

**Drill Down to Sustainable, Entry Level Employment Opportunities and Career Pathways.** While employers often emphasize the need for highly-skilled workers, education and workforce agencies need to be able to articulate requirements for entry level job opportunities as well, and what career pathways and resources exist. This will be critical to open the door to employment for many Detroit area residents.

### Sustain It.

**Expand Successful Sustainability-Based Partnerships.** Building upon successes partnerships and projects can help to scale up what is working. For example, investors can help bring to scale the successful efforts of federally-funded partnerships that have a track record of helping the hardest-to-serve residents secure employment in growing companies or create their own jobs in the green economy.