

Assessing the Inclusiveness of Western North Carolina's Green Economy

Prepared for the YWCA of Asheville and Green Opportunities

By Erin P. Condo
February, 2011



Project Partners



Project Partners & Sponsors

YWCA of Asheville

The mission of the YWCA of Asheville and Western North Carolina is the elimination of racism and the empowerment of women. The YWCA is currently engaging in a multi-year campaign to ensure a place for women in Western North Carolina's green economy.

Green Opportunities

Green Opportunities is a community-based development organization dedicated to improving lives, communities and the health of the environment through innovative green collar job training and placement programs. These programs are designed specifically to help unemployed members of Asheville's low-wealth communities access living wage job opportunities in the local green economy.

Western North Carolina Green Building Council

WNCGBC is a 501C3 non-profit organization whose mission is to promote environmentally sustainable and health conscious building practices through community education.

Z. Smith Reynolds Foundation

The Z. Smith Reynolds Foundation actively seeks to promote access, equity, and inclusiveness and generally improve quality of life for people in North Carolina by providing grants to promote social, economic, and environmental justice.

Women For Women Foundation

Women for Women (WFW) is a community of women which invests in women and girls to transform their lives and to create a more just and equitable society. WFW believes and evidence demonstrates that when women thrive, their families and communities thrive. WFW works to create opportunities for women and girls of Western North Carolina through grantmaking, advocacy and advancing women's philanthropy.

Table of Contents

Executive Summary	4
Introduction: The Promise of Green Jobs for Women and People of Color	6
Methodology	8
Defining and Measuring Green Jobs and Their Success	
Green Business Survey	
In-Depth Interviews	
Focus Groups	
Analysis	
Limitations	
Status of Women and People of Color in the Local Green Economy	12
Demographics	
Quality of Local Green Jobs	
Percent Women and People of Color in the Local Green Economy	
Occupational Segregation in the Local Green Economy	
Segregation by Industry Type	
Skills and Qualifications	
Access to and Participation in Green Training Programs	
Employer Attitudes	
Green Career Ambitions of Women and People of Color	
Barriers Facing Women and People of Color	23
Institutional Barriers	
Personal Barriers	
Best Practices for Creating an Inclusive Green Economy	34
Strengthen Partnerships and Collaborations	
Increase Targeted Recruitment	
Standardize Green Educational Programming	
Increase Wrap-Around Services	
Participate in Green Economic Development	
Create Mentoring and Networking Opportunities	
Measure and Evaluate Green Training Programs	
Conclusion	44

Executive Summary

While national and state policy makers promote the green economy as a major pathway out of poverty for people facing barriers to employment, the impact of the green economy is not widely understood, especially at the local level. The overall goal of this report is to assess the status of women and people of color in Asheville's and Buncombe County's local green economy and to promote best practices for creating a green economy that is more inclusive. To this end, this study seeks to understand three major questions:

- 1) What is the status of women and people of color in Western North Carolina's green economy?
- 2) What are the barriers facing women and people of color as they attempt to enter and retain jobs in the local green economy? and
- 3) What are the best practices for creating a local green economy inclusive of women and people of color?

In answering these questions, multiple research methods were employed across different populations of stakeholders in Western North Carolina's green economy. A survey was administered to local green businesses, green business leaders and green jobs training program leaders participated in in-depth interviews and focus groups were held with women and people of color who were looking for work in the green economy. Results from these methods are supported in this report by an extensive review of the literature.

The Status of Women and People of Color in Western North Carolina's Green Economy

Findings show that the status of women and people of color in Western North Carolina's green economy is mixed. Locally, green businesses are struggling somewhat to provide a large number of jobs. However, when they do provide jobs they are usually of high-quality, offering a living wage and other benefits. Due to competition for a limited number of available jobs, people with barriers to employment—including women and people of color—are often overlooked. Women are concentrated in administrative positions, at both the upper and lower levels of green businesses while people of color are concentrated in entry-level, site labor positions.

Barriers to Entering and Remaining in the Green Economy

Women and people of color face a number of individual and institutional challenges to accessing and retaining green jobs. At the individual level, low-income women and people of color often have difficulty meeting basic needs, are burdened with mental and physical health issues, or lack the basic skills and education required for green jobs. Women are generally not encouraged to enter trade careers.

At the institutional level, women and people of color face a lack of available green jobs and a lack of role models and mentors already in green jobs. Green employers report that women and people of color are not applying for jobs, and green training programs report having a difficult time recruiting women and people of color. Both green businesses and green jobs training programs lack targeted recruitment efforts aimed at these populations.

Best Practices for Including Women and People of Color in the Green Economy

Based on the research findings and examples from other states, this report makes a number of recommendations to establishing a green economy that is inclusive of women and people of color, including:

1. Strengthen partnerships and collaborations;
2. Increase targeted recruitment and outreach to people facing barriers to employment
3. Standardize green educational and training programming
4. Increase access to wrap-around services
5. Participate in economic development and social enterprise
6. Create mentoring, networking, and apprenticeship opportunities
7. Measure and evaluate training programs and access to green jobs.

While the findings of and recommendations made in this report are specific to Asheville and Buncombe County, North Carolina, the methods and results are broad enough to be applied to other communities looking to evaluate the inclusiveness of the green economy locally. The results of this report will be made public, but will also be used to guide the work of a local stakeholders group who are charged with increasing access to green jobs for women and people of color.

Introduction: The Promise of Green Jobs for Women and People of Color

The focus on green job creation, combined with growing investments in green technologies, holds promise at the local, state, and national level for an emergent but strong green collar workforce. Green collar jobs represent an important new category of workforce opportunities because they are relatively good jobs, often providing a living wage, health benefits, a flexible schedule, and meaningful work. Further, green collar jobs often have low barriers to entry in industries that are “poised for dramatic growth” and offer advancement opportunities (Pinderhughes 3).

In a case study of Berkeley, California, Pinderhughes finds that the growing number of available green jobs are highly suitable to people facing barriers to employment because they have minimal entry requirements and provide opportunities for advancement. Further, most green businesses provide on-the-job training and most green job sectors are growing rapidly, especially those in energy efficiency and renewable energy.

For women, green jobs have great potential for better wages than entry-level jobs traditionally held by women. For instance, “construction carpenters, 99 percent of whom are men, earn an average of \$18.72 an hour. In contrast, women make up 98% of preschool teachers, where the typical hourly pay is \$11.48 an hour. With these wages, a preschool teacher would have to work 25 more hours per week to earn the same amount as a carpenter” (Why is Green Good for Women 1).

While many studies examine the economic impact of the green economy and green jobs (North Carolina Sustainable Energy Association, 2009), few examine the impact of the green economy on creating jobs for people with barriers to employment. Many action papers call for the accurate measurement of this impact (Liu and Keleher 2009, Ella Baker Center Initiative 24, White and Walsh 51, Green for All 7), and many provide recommendations for workforce training programs (Apollo Alliance & Green for All, 2008). The newness of the focus on green jobs requires a new research focus, especially regarding the inclusiveness of the green economy for women and people of color. This report attempts to fill a small gap in this research, at least locally, to provide a basic understanding of the status of people to barriers to employment in Western North Carolina’s green economy.

Focus Areas

- 1. The Status of Western North Carolina’s Green Economy for Women and People of Color;**
- 2. Summary and Analysis of Barriers that Typically Exclude Women and People of Color in Local Green Jobs; and**
- 3. Recommendations and Best Practices for Training and Placing Women and People of Color in Western North Carolina’s Green Economy.**

On one level, the goal of this research is to contribute to the growing body of literature related to the green collar workforce. However, the main purpose of this report is to guide and inform local stakeholders in their efforts to increase the representation of women and people of color in the local

green economy in the name of social and environmental justice with the added belief that diversity of race, gender, age and income levels is ultimately beneficial to green businesses.

This report reflects multiple perspectives of green job seekers, workers, employers, business leaders and training program coordinators, gathered through surveys, in-depth interviews and focus groups. It addresses three major areas of discussion. The first portion of this paper provides a summary of the status of Western North Carolina's green economy for people facing barriers to employment. The second part examines the barriers facing people of color, women, and disconnected youth as they try to enter and retain jobs in the local green economy. The last section of this report provides targeted recommendations for breaking down these barriers and ultimately including more women and people of color in Western North Carolina's green economy.

Methodology

This research project is grounded in strong collaboration and thorough community-based research with the goal of providing accessible and usable results. As with any community-based research, this project requires the study of many levels of analyses, from individuals working in or looking for green jobs to green job training programs to green businesses. Understanding the perspective of these different populations provides a more complete picture of the status of green jobs in Western North Carolina.

Local community-based research is best served using multiple research methods, both qualitative and quantitative. Qualitative methods included formal and informal interviews and focus groups with green business leaders, green pathway leaders, and green job seekers and workers facing barriers to employment. The main quantitative method used in this research was the Green Business Survey administered to local green businesses.

All of the primary research for this project was conducted in the Fall of 2010.

Defining and Measuring Green Jobs and Their Success

Measuring the impact of green jobs is a new undertaking at the local and national levels, and working definitions of “green jobs” and the “green economy” are still being debated among policy makers, academics, and practitioners.

In 2009, the Bureau of Labor Statistics (BLS) set out to create a working and measurable definition of green jobs. The emerging definition includes three main economic groups with the first group centering around jobs in businesses that are dedicated to the production of green products and services, including those jobs in renewable energy, energy efficiency, green building, and environmental protection and mitigation. It is this first part of the BLS definition that this research project uses to define and guide the examination of the local green economy.

Along with efforts at the national and state level, many non-profit agencies and social justice organizations are working to establish guidelines for evaluating the quality and quantity of jobs created and retained in the green economy, especially in regards to their accessibility to people with barriers to employment.

This paper defines “green jobs” at the business level of analysis. Therefore, any job found in a green business is considered green, including administration and sales. As one local business owner states, because “a lot of what green jobs are is the same as other jobs...it’s the business and the business model that makes it a green job.”

What is a “Green” Job?

For the purposes of this research, green jobs are defined as those occupations found within green businesses. Businesses are determined to be green if they employ green practices. In this study, green businesses were selected from the membership list of the Western North Carolina Green Building Council, and included businesses that focused on green building, energy efficiency, renewable energy, and/or waste management.

Green Business Survey

In October, 2010, a survey of green businesses was conducted. The population for the survey was drawn from green businesses in Western North Carolina, specifically from Buncombe, Henderson, Madison, and Transylvania counties. The majority of businesses were located in Asheville, North Carolina.

As mentioned earlier, this study relies on the first portion of the BLS green jobs definition, pertaining to jobs in those industries dedicated to providing green products and services. Specifically, the status of local green jobs was studied in the green building, renewable energy, energy efficiency, and waste management industries. Within these overarching categories, many sub categories exist. Not included in this study are jobs in agriculture, architecture, consulting, real estate, public relations and advocacy, retail, engineering, and education. See Table 1 for the complete list of categories used to define the survey population.

Table 1: Green Business Classifications			
Green Building	Energy Efficiency	Renewable Energy	Waste Management
New Construction/Remodeling	Electricians	Solar	Recycling
Remodeling/ Retrofit	HVAC	Wind	Compost
Green Painters	Insulation	Biofuels	Reuse
Plumbing	Geothermal		
Masonry			
Roofing			

Using the WNC Green Building Council membership database as well as other small data bases of green businesses collected by Green Opportunities and independent research, over 300 potential survey respondents were identified. After the number of undeliverable email addresses and email opt-outs, the total survey population was 270. A total of 48 businesses responded, making the response rate 18%.

The Green Business Survey was rooted in the survey design standards set by the Tailored Design Method (Dillman), a process that works to establish trust with respondents to ensure a higher response rate. Following this method, multiple contacts were made with the survey population, and the survey itself was designed to be easy and understandable. The survey population was sent a pre-notification email, followed by another email with a link to the online survey. A week later, survey non-respondents were sent a follow-up email. Two weeks after the survey was first administered, personal phone calls were made to businesses who still had not responded.

The surveys included quantitative and qualitative responses to gather free-flow information related to the challenges to and recommendations for increasing the representation of women and people of color in the local green economy. The survey also focused on assessing the current status of green jobs, with questions related to company size, the representation of women and people of color across position types, wages and benefits, and hiring and recruitment practices.

In-Depth Interviews

Along with administering the green business survey, in-depth interviews were conducted with green business leaders, green training program leaders, and green employees. Green business leaders were identified in the green business survey as respondents who volunteered to be contacted for an interview. Six business leaders in energy efficiency, green building, and renewable energy were selected for in-depth interviews.

Green pathways leaders in this research project include instructors and program coordinators in green jobs training programs. Once identified, many green pathways leaders were also interviewed. The green pathway interview focused on the demographic make-up of the program and career placement, program objectives and the challenges to recruiting and retaining people with barriers to employment in the program. Those interviewed include Dan Leroy from Green Opportunities, Ken Czarnomski from the AB Tech Construction Management program, Susan Garrett from the Asheville-Buncombe Community Christian Ministry (ABCCM), Sharon Oxendine from Mountain Biz Works, and Jon Snover from the AB Tech Global Institute of Sustainable Technologies.

Interviews were also conducted with 4 graduates of local green job training programs who are currently working in green jobs, referred to in this research as a “green employee.” These interviews focused on the evaluation of training programs in regards to preparing for and placement in green jobs as well as the challenges to finding and keeping green jobs as a person facing barriers to employment.

Focus Groups

For people facing barriers to employment who are looking for green employment, referred to in this research as “green job seeker” or “job seeker,” two focus groups were conducted. The first focus group consisted of 19 young adults aged 18-24 with barriers to employment who were beginning their training in the Back-to-Basics and the Go Training Team program. Within the group, 6 were female and 17 were people of color.

The second focus group consisted of 9 voluntary participants in the GO Green Jobs/ABCCM training program. Of these participants there were 3 women and all were people of color. Similar to the interview questionnaire used with employed green job training graduates, the focus group questions centered around career ambitions, barriers to employment and best practices in the job place.

Research Populations

Green Business and Green Business Leaders: Owners, Human Resource Managers, or other upper-level managers at identified local green businesses.

Green Pathway Leaders: Program coordinators, educators, and department heads of green jobs training or educational programs.

Green Employee/Job Seeker Facing Barriers to Employment: Women, people of color, and disconnected youth who are either looking for a green job or who are currently working in a green job.

Local Stakeholders Group: A collection of over 25 local green advocates, community organizers, non-profit leaders, green business leaders, educators, government workers, and local officials who work together to create more opportunities for people facing barriers to employment.

Analysis

The main approach to analyzing all the data collected in this research is to use qualitative and quantitative data findings in tandem to describe the status of green jobs for people facing barriers to employment in Western North Carolina. The majority of quantitative data is demonstrated and analyzed using cross-tabulations, which establish interdependent, but not causal relationships between two variables. For instance, in this research, there is an interdependent relationship between gender and the type of green job held. Cross tabulations are presented in table form and are further supported by qualitative data gleaned from in-depth interviews and focus groups across populations.

In understanding the specific barriers to employment for women and people of color and the best practices for including them, this report relies heavily on responses to the in-depth interview questions. These findings are then supported by secondary research findings from the review of relevant literature.

Limitations

In an effort to provide a comprehensive, multi-faceted research report that represents all sides of the green jobs issue, much of the findings are stretched thin across green businesses, green pathways, and green job seekers and employees. The sample size for the survey as well as the number of interviews conducted is relatively small, however, the findings from this primary research are consistent with findings from other green jobs studies and case studies.

Because the survey population drew from the Western North Carolina Green Building Council membership list, there is a heavy concentration of green building and green renovation companies represented. To offset this bias, in-depth interviews were targeted to businesses in energy efficiency and renewable energy.

Regarding in-depth interviews and focus groups with green job seekers and employees facing barriers to employment, there is a heavy concentration of graduates and trainees from programs offered or sponsored by Green Opportunities, a sponsor of this project. It is partially because of this sponsorship that the researcher was easily able to gain access to the target population for this study, lending credibility and establishing trust between the researcher and the subjects of the study. This study could be improved by including job seekers/employees that graduate from other local training programs.

Lastly, while women across racial and social classifications are considered to face barriers to entering the green economy, women of color from low income neighborhoods make up the majority of the sample in this study.

The Status of Women, People of Color, and Disconnected Youth in Western North Carolina's Green Economy

The goal of this section is to understand the status of employment for women, people of color, and disconnected youth in the Western North Carolina's green economy. Within that, this paper sets out to understand a number of aspects of green employment including the percentage and number of women and people of color in local green jobs, the degree of occupational segregation, the quality of green jobs, and the level of access to green training programs. Further, green business leader and green job seeker and green employee attitudes toward green jobs are also evaluated.

Findings in this section rely heavily on data gathered from the Green Business Survey, administered to green business leaders in Western North Carolina in the fall of 2010. This survey data is supported by interviews with green business leaders, green pathway leaders, and green job seekers and employees.

Findings

Demographics

In general, the majority of businesses in our sample are small, ranging from 1 to 5 employees with only two businesses employing more than 30 workers. This finding is consistent with statewide data which shows that, at least in the renewable energy and energy efficiency sectors of the green economy, over 70% of firms had 10 or fewer employees in 2009 (North Carolina Sustainable Energy Association 7). Interviews with business leaders reveal that some green businesses are choosing to stay small and hire subcontractors to complete work rather than expand their workforce. Table 2 shows the breakdown of the number of employees for the different green business types. Because many green businesses offer a number of services, they were able to self-select multiple green business types when responding to the survey. For example, if a green building business also provided energy efficiency or weatherization services, they might be represented twice in this table.

	Sole Owner	1-5 Em- ployees	6-10 Em- ployees	11-20 Employees	21-30 Employees	>30 Employees
Green Building	7	15	5	6	0	1
Renewable Energy	3	1	1	1	1	1
Energy Efficiency	1	7	0	4	0	0
Waste Manage- ment	1	3	0	1	0	0
Total	12	26	6	12	1	2

Within the next year, businesses in our sample anticipate adding 53.5 jobs, and eliminating 11 jobs. The majority of jobs being added are in the green building sector. With a net job growth of 42.5, across the sample, each business will add an average of a little less than one job. Assuming that the rest of the population adds almost one job each, Western North Carolina can anticipate an addition of 300 jobs in the next year. Because the findings from this survey are limited to a small number of businesses, it is difficult to anticipate which industries will show the most growth. However, the 2009 North Carolina Renewable Energy and Energy Efficiency Industries Census anticipates growth in jobs such as renewable energy installation, design, and green development. The Chicagoland Green Collar Jobs Initiative predicts that “the types of occupations with the most growth potential in the short term are energy efficiency measure installers and energy efficiency auditors” (5).

Business leaders seem to have a large volume of applications, even if open positions are not announced. One green building company reports, “We get so many applications, I mean, like every week...so if we need somebody we don’t usually have to advertise. We draw from people we know, but every week we get at least 2 resumes. Sometimes I glance them over, but normally we’ll go with a known quantity.” A green pathway leader adds, “I have a job board up right outside my office and I can remember 3 years ago I didn’t have enough students to fill the jobs...Now, my job board’s got one posting on it...”

Again, these numbers only account for jobs in renewable energy, energy efficiency, green building, and waste management in our

Indicators for Understanding the Status of Women and People of Color in the Local Green Economy

- The percentage and number of women and people of color in WNC’s Green Economy
- The degree of gender and race segregation by position types
- The degree of gender and race segregation by industry types
- The quality of local green jobs
- Skills and qualifications needed for local green jobs
- Access to and participation in green training programs by people facing barriers to employment
- Employer attitudes toward hiring people with barriers facing employment
- Green career ambitions of people with barriers to employment

Western North Carolina. The potential for new green jobs not accounted for in this study is unknown, but promising nonetheless. “This is not a recession. This is a renaissance period for construction. We’re looking at the market in very different ways than we’ve ever looked at it before. And so the kinds of jobs that are coming out of this are things that weren’t even around 5 years ago and I’m excited about that” says a green pathway leader.

Quality of Local Green Jobs

Good jobs are those that “provide workers with meaningful, community serving work, living wages, benefits, and advancement opportunities” (Pinderhughes, 2007, p.3) According to survey results, the local green jobs that do exist are good jobs, with most offering a living wage (70%), a flexible schedule (66%), incentives for training (32%), and health care (21%). These findings are consistent with claims that green jobs are good jobs (Pinderhughes 3).

Table 3: Average Hourly Wage by Position Type							
	Under \$10	\$10-\$14.99	\$15 - \$19.99	\$20 - \$24.99	\$25 - \$29.99	\$30 - 49.99	> \$50
Upper Level	-	4	5	9	6	15	6
High Skill	2	3	9	6	3	2	1
Site Supervisory	-	4	13	10	4	1	1
Site Labor	2	15	8	2	-	-	-
Administration	2	4	8	5	-	-	-
Sales	1	6	1	4	1	-	-
Total	7 (4.3%)	36 (22.1%)	44 (27%)	36 (22.1%)	14 (8.6%)	18 (11%)	8 (4.9%)
Summary: The Green Businesses in our sample provide well-paying jobs, with most wages falling between \$10 and \$24.99.							

Findings from the interviews with green businesses show that not only are the quality of the jobs good, but that the business culture provides an environment perhaps more supportive and inclusive than other traditional business models. A local solar power company describes its workplace as having a family-like atmosphere with less focus on hierarchy and more focus on the team, empowering its employees through programs like profit sharing. Further, its mission and intention to serve the community and the environment provides the employees with meaningful work where they can contribute to their community. A business owner describes green jobs as “more intrinsically rewarding...not going to work everyday thinking you’re a cog in the wheel.” He continues, “it’s a good environment for people who are creative and want to feel like they’re involved in steering the ships they’re on. The values in the organization are human as opposed to technocratic—transform something and make dollars.”

Percent Women and People of Color in Local Green Economy

According to employment data self-reported by businesses in our survey, women make up 20% of jobs in green businesses. People of color make up 11% of jobs in these same green businesses. Census data shows that in Buncombe County, women make up 52% of the population. African Americans make up 7% of the Buncombe County population while Hispanics and/or Latinos make up roughly 4% of the Buncombe County workforce. Similarly, 54 % of Asheville’s population is female, and 4% are Hispanic. In Asheville, the percentage of African Americans is 14.9%, double that of Buncombe County (factfinder.census.gov).

Occupational Segregation in the Local Green Economy

Occupational segregation is the tendency for a demographic group (e.g. women, people of color) to dominate specific job types. Especially for women, occupational segregation is problematic because job types that have a higher concentration of women than men (childcare, social services, administrative support, etc.) typically pay less than occupations dominated by men (Hegewisch, et al. 1, “Why is Green Good for Women?” 1).

The prevalence of occupational segregation also points to continued socialization of women and people of color, where they are not provided with information about or are even actively discouraged from alternative job choices (Hegewisch et al 1, Women’s Economic Security Campaign 9).

To examine occupational segregation in the local green economy, survey respondents were asked to report the number of employees for each occupational category. In our sample, the majority of women are concentrated in administrative positions, both at the lower level and at the upper levels of green organizations. Of all lower-level administrative jobs, 85% are held by women. Among all women in these green businesses, 33% are found in upper-level administration, and 32% of all women are found in lower-level administrative positions. Women are less likely to be found in entry level site labor and site supervisory positions than all the categories.

Green Occupation Types

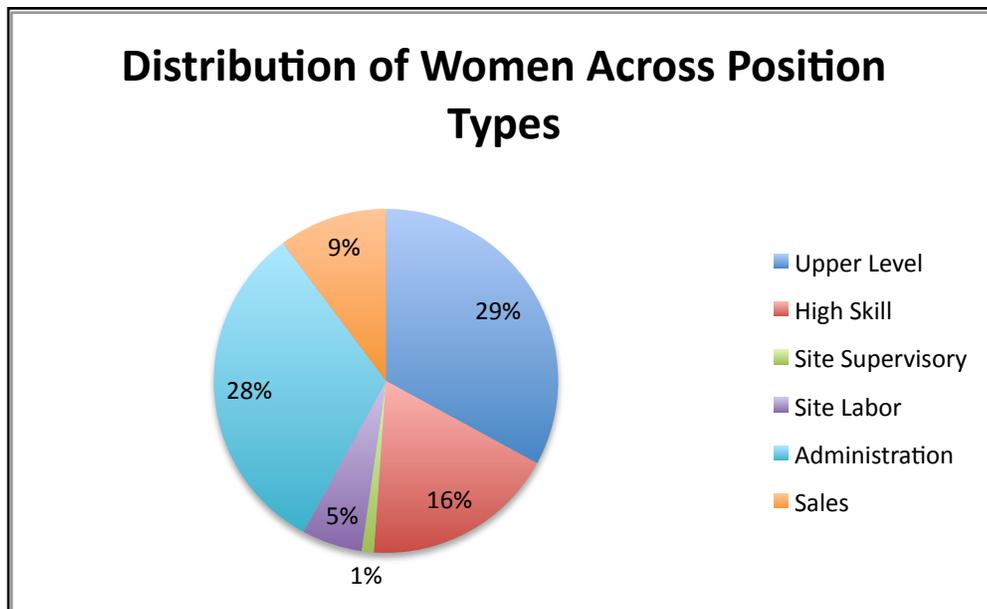
For the purposes of this study, occupation types were divided into the following areas:

1. Upper-Level Administration and Ownership Positions
2. Highly-Skilled Technical Positions—consultation, design, engineering and surveying, Home Energy Rater
3. Site Supervisory or Crew Leader Positions
4. Site Labor—entry-level, installation, janitorial, trades people
5. Administrative Support
6. Sales and Marketing

	Total #	# Women	% Women
Upper Level	141	29	21%
High Skill	65	16	25%
Site Supervisory	58	1	2%
Site Labor	115	5	4%
Administration	33	28	85%
Sales	25	9	36%
Total	437	88	20%

Summary: Women make up the highest percentage of employees in Administrative positions.

While the dearth of women found in site labor and site supervisory positions points to a number of issues related to social barriers women face entering traditionally male occupations, these numbers also point to positive trends in women taking leadership positions in green organizations. Further, pay in all of these position types is normally at least a living wage, where as in non-green sectors, the pay differential is usually more pronounced.



One business leader describes how effectively her business works with women in administrative positions, saying, “We have a woman owner, bookkeeper, and personal assistant. Basically, the company is run by women and executed by men—it seems to work very well.” A green pathway leader

concur, saying, "...women are sharp. They make some of the best managers out there and I've worked with a lot of women project managers and there's a lot of women architects around Asheville." Whereas many people point to the physical challenges of the job as preventing women from entering and excelling in green jobs, there is some agreement that women make good leaders. The pathway leader continues, "...if they're in the management aspect then it's very different. Women excel, most of the time, far and above the guys. Easily."

"We have a woman owner, bookkeeper, and personal assistant. Basically, the company is run by women and executed by men—it seems to work very well"—Green Business Leader/Construction

People of color are more likely to be found in site labor and site supervisory positions than are women, but they are noticeably absent in sales, administration, high-skilled labor, and upper level management positions.

	Total #	# People of Color	% People of Color
Upper Level	141	9	6%
High Skill	65	4	6%
Site Supervisory	58	9	15%
Site Labor	115	22	19%
Administration	33	1	3%
Sales	25	1	4%
Total	437	46	11%

Summary: The position type with the highest percentage of people of color is "site labor."

Generally, the type of occupational segregation clearly seen here is coupled with a significant gap in wages. However, in our local green economy, the wage gap is not particularly prevalent (compare with Table 3 in previous section).

Segregation by Industry Type

In looking at disparities among women and people of color across the different industry types in this sample, the findings are mixed. While women are basically distributed evenly across industry sectors in this sample, people of color are disproportionately underrepresented in the renewable energy sector, according to our survey.

	Total #	# People of Color	% People of Color
Energy Efficiency	95	21	22%
Green Building	249	32	13%
Renewable Energy	123	7	6%
Waste Management	70	8	11%

Skills and Qualifications

Most businesses report no clear educational requirements across business types in the business survey. Of all of the respondents, 69 (43%) have no educational requirements. A small majority of upper-level administrative positions require a Bachelor Degree (36%), but this number is still small.

	No Require-ments	High School Di- ploma	Some Col- lege	Associates Degree	Bachelor's Degree	Graduate Degree
Upper Level	15	5	6	2	16	-
High Skill	8	6	1	3	7	1
Site Supervisory	13	11	3	3	1	1
Site Labor	18	8	-	1	-	-
Administration	7	7	2	1	-	-
Sales	8	3	-	-	3	-
Total	69	40	12	10	27	2

Summary: Most position types have no clear educational requirements, except for upper-level administration in which 16 businesses require a Bachelor's degree, and 15 have no requirements.

Along with education requirements, the survey measures the demand for certifications by position type. Similar to education requirements, there is little demand for specialized professional certifications among our survey population.

When given an opportunity to comment on the Green Business Survey, respondents repeatedly reported that they hire based on skill and experience. One respondent writes, “In the local construction industry there are very few women and people of color (African American) who are skilled in carpentry.” However, the survey data gives us little insight into the nature and extent of skills and experience needed for these jobs.

“In the local construction industry there are very few women and people of color who are skilled in carpentry.” – Green Business Leader

Companies interviewed for this research are less concerned with applicants having specific skill sets than they are with how well the individual fits into the culture of the workplace. These companies, largely in the renewable energy field, prefer to provide on-the-job training so that employees can

learn methods and techniques specific to that company or industry and to ensure that they are develop products and services that meet their own standards. One business owner responds, “What we can’t teach them is the work ethic and collaboration and working with their co-workers and those interactions. Those are more important. We can train them, we can give them the skills.”

Further, because some of the technology in these industries, especially in renewable energy, is relatively new, there are not many applicants with industry-specific experience. A renewable energy company states, “being in a new industry you don’t have a lot of options when it comes to labor. That’s why we’d rather hire good people and train them in our systems and our culture and our quality standards.”

Still, basic skills, safety, and comfort with tools and the construction site are often cited as the rudimentary skills needed for entry level positions in these companies. An energy company owner corroborates, “It doesn’t matter if you don’t know which end of the solar panel goes up, we can teach you that in 3 minutes. What does matter is if you’re a team player, if you’re reliable, if you’re safe, if you know how to use tools.”

Local green businesses are less concerned with applicants having specific skill sets than they are with how well the individual fits into the culture of their workplace.

The findings of this research project are consistent with the work of Pinderhughes who finds that employers find candidates “job ready” if they have a sense of responsibility, a strong work ethic, the ability to work independently or as part of a team, a positive attitude, and good appearance (4).

It became clear in the interviews that while most employers do not require specific education levels or certifications, education and experience give applicants an edge over less qualified candidates in these economic times. On receiving applications, a business owner says, “what we find is, it’s not the quantity but the quality. Versus 2 years ago, we’re getting much higher quality applicants than we were then because of the economy.”

Access to and Participation in Green Training Programs

Much of the green jobs literature focuses on recommendations for green jobs training programs, especially those that target people with barriers to employment. In Asheville, there are a number of educational institutions, businesses, and non-profits that provide green jobs training (See Catalog of Green Career Pathways).

Green Opportunities (GO) specifically targets its green jobs training programs to people in low-income neighborhoods that have one or more barriers to employment. All of its programs are free, and some provide paid training. Roughly 75% of its participants are people of color and 20% are women. Along with hands-on experience, GO provides social support services, case management, and basic job skills training.

Asheville-Buncombe Community Christian Ministries (ABCCM) was recently awarded a grant to train 340 Asheville residents and place 266 of them in green jobs. However, this target placement goal is proving difficult to meet, with only a small number of graduates finding long-term employ-

ment. The grant targets people in low income Asheville neighborhoods that face barriers to employment. Of the program participants, roughly 50-60% are African American and 10% are women. Similar to GO, ABCCM offers wrap-around social services as well as medical and dental services at no charge.

Both GO and ABCCM have expanded their focus to include job creation, especially in weatherization. The GO Energy Team provides weatherization services to the community and utilizes program graduates. ABCCM also works to promote the benefits of weatherization throughout the community so that jobs are created in turn.

While not targeted to people with barriers to employment, AB Tech does offer a diverse green training program especially through its Construction Management program (called “Asheville’s Green Building School) and the Global Institute for Sustainable Technologies. The vocational and community college provides relatively affordable technical training and works with a number of community partners such as Green Opportunities and ABCCM to provide training and continuing education opportunities. AB Tech also offers GED classes and has minimal entry requirements for students.

The make up of the AB Tech program varies from year-to-year, but currently consists of around 10% women, 10% African American, and 15% Hispanic. There are a few scholarships available to these demographic groups.

There are great opportunities for green jobs training in Western North Carolina, and there are a number of programs in Asheville that effectively target people with barriers to employment. However, throughout these programs, women are underrepresented.

Employer Attitudes: Workforce Training and Hiring Women and People of Color

Although business leaders report that they are open to hiring women and people of color, they are not actively or intentionally recruiting them to their businesses. Only 2% of our sample report that they intentionally recruit women and/or people of color. In rating the value of having women and people of color working for them, hiring women was given a rating of 2.6 out of 4 total points and hiring people of color was rated 2.4 out of 4 total points.

When asked to describe efforts to intentionally recruit women and people of color, one respondent reports that they specify it in ads, and another reports that they consult with a local university to recruit applicants. The most common comment on the survey was that employers hire based on skills, qualifications, and their ability to fit in with their work culture and that race and gender do not matter. One respondent writes, “ While we do not actively seek the hiring of women and persons of color, we are absolutely and actively open to consideration of all individuals working with us.”

Green Career Ambitions of Women and People of Color

The focus groups reveal that not many women and people of color are specifically looking for green jobs. They are looking, like most people, for meaningful work where they are trusted and given a chance to do good work, where they can apply their skills, and be treated as a professional. This sentiment is summed up by one focus group participant who desires "...just a job doing something that I enjoy doing that gives back to the community and that can support me and my family and just, you know, just find a place to live, the basic needs of life, and a job where I can move ahead, make more money..."

Some members of the focus groups see green jobs training as an opportunity to learn new skills, but the motivation to participate is mainly survival. One participant says, "I know if they pay me right, you can put me on a scaffold, you can put me on the ...side of a mountain. If that pay right, I don't care. I could be in a room with people I don't get along with, but that pay right, I'm gonna sit right there and enjoy myself." Another participant adds, "even though we might want a certain kind of job, we'll take anything we can get. Sometimes, even though we don't get the job we want we just have to adjust to whatever it is we get."

"...just a job doing something that I enjoy doing that gives back to the community and that can support me and my family and just, you know, just find a place to live, the basic needs of life, and a job where I can move ahead, make more money..."--Green Job Seeker

While focus group participants were not specifically interested in green jobs, they recognized that by completing the training program at Green Opportunities or ABCCM that they were headed for more positive and meaningful work. One participant says, "I ain't trying to go back to prison. I'm doing something better for my life, if it means starting this [GO] and doing positive, that's what I'm going to do." Another participant adds, "I'd like to get put on a job that I'm really interested in, that way I stay motivated when I'm going to work."

Similar to this study, Pinderhughes interviewed 36 people with barriers to employment in the San Francisco Bay area. The study found that one of the most appealing aspects of green jobs was that it offered an opportunity to serve the community and environment (87).

The Status of Women and People of Color in Western North Carolina's Green Economy: A Review

In Western North Carolina, the green economy is working well on many levels to provide employment for women and people of color. First, the local green jobs are relatively good jobs, ideal for people facing barriers to employment because they offer a living wage, a flexible schedule, upward mobility, and low entry requirements. Perhaps the most surprising finding in this study is that women are well represented in the upper echelons of the local green economy, where they are also paid well. People of color are well represented in the entry-level site labor positions, which can be seen as positive because most green businesses offer training and advancement opportunities. Finally, there are a number of green jobs training programs locally that are easily accessible to if not directly targeting people facing barriers to employment, including women and people of color. A

few of these job programs are also working to create more jobs locally, especially those related to weatherization, which also potentially serve low-income neighborhoods.

While there are many positive aspects of the local green economy, there are still some problem areas that need to be addressed. First, there is no targeted recruitment of women and/or people of color to jobs or to most traditional education programs. On the job front, women are underrepresented in site labor and site supervisory positions, while people of color are underrepresented in all position types except for site labor positions. At the business level of analysis, there seems to be little growth happening in the next year.

The next section of this report provides a more in-depth overview of barriers for individuals, green training programs, and green businesses in Western North Carolina.

Western North Carolina's Green Economy: A Report Card

Excellent:

- Local green jobs are good jobs, usually offering a living wage, health care benefits, flexible schedules, and advancement opportunities.
- Women are well represented in upper-level management positions at local green businesses.

Satisfactory:

- People of color are well-represented in entry-level site labor positions.

Needs Improvement:

- There is a lack of targeted recruitment of women and people of color to local green training programs and green jobs.
- Women are underrepresented in site labor and site supervisory positions in local green businesses.
- People of color are underrepresented in lower and upper administrative, site supervisory, sales, and high skilled positions in green businesses.
- Very few green jobs will be added in the next year.

Challenges to Building a Green Economy Inclusive of Women and People of Color

This summary of barriers to entering the green workforce relies heavily on surveys administered to local green businesses and interviews and focus groups with green business leaders, green pathway leaders, green job seekers, and green job workers. This research is supported by a review of the literature related to the green collar workforce. Although much of the literature points to the promise of the green economy for people with barriers to employment, primary research conducted in Western North Carolina demonstrates that there are considerable obstacles to overcome for individuals, green jobs training programs and green businesses.

Findings in this study reveal a complex set of interrelated barriers. Women and people of color are underrepresented in local green jobs and green jobs training programs. From interviews and focus groups with green job seekers, it is clear that women and people of color are discouraged, and feel like they are not being given a chance in the job market.

On the business and training program end, most survey respondents and interviewees would like to have more women and people of color represented in their organization, but say that these populations are not applying for these jobs or programs. And while on the whole they desire a diverse work or training environment, they are not actively recruiting women and people of color and in many cases have hiring practices that, while not directly discriminatory, do make it difficult for these groups to access opportunities.

This discussion has two main parts. The first focuses on the institutional barriers to including women and people of color in green jobs training programs and green businesses. The second part focuses on the barriers that women and people of color face as they look for training and work opportunities. A discussion of barriers specific to women across economic and racial classifications is included.

Institutional Challenges

Local data shows a disconnect between individuals facing barriers to employment and green training programs and employers. This disconnect revolves around the number of applications for jobs as well as the training and hiring of women and people of color specifically. This section examines this disconnect and explores other major barriers to employment at the institutional level, including:

- Lack of applications from women and people of color;
- Lack of representation of women and people of color in green jobs and training programs;
- Lack of targeted recruitment of people facing barriers to employment;
- Lack of available local green jobs; and
- Lack of mentoring and networking opportunities.

Lack of Applications from Women and People of Color

When asked to describe the biggest barrier to hiring women and people of color in their green business, some business leaders claim that these populations are just not applying for these jobs, either because they are not interested in that kind of work or because they are not skilled. One survey respondent writes, “In the local construction industry there are very few women and people of color who are skilled in carpentry. During the construction of a home I would say maybe only 2% are people of color and 0-1% are women. This includes all phases and subcontracted work.”

In general, business leaders report that the pool of women and people of color who have the necessary skills is quite small. According to one green business owners, “the black folks in my neighborhood usually aren’t real serious when they ask for work and the ones I that I have hired have been pretty disappointing even as unskilled laborers.” This viewpoint reflects an industry bias that perpetuates a less inclusive green economy.

Women, especially, are underrepresented in the green jobs training programs and in green jobs. A pathways leader says, “it seems like women aren’t really attracted to jobs we tend to train for or they don’t see themselves doing those jobs for whatever reason, maybe because they don’t see other women doing those jobs.”

Lack of Targeted Recruitment of Women and People of Color to Green Jobs and Green Training Programs

While many green business leaders and green pathway leaders express the desire to have a more diverse workforce, they seem at a loss as to how to effectively recruit people facing barriers to employment to their workforce or training program.

For instance, ABCCM recruits dislocated/underemployed workers facing barriers that have previous construction experience to provide more training in specific green technologies. The reasoning behind targeting people who already have experience is that they will be easier to place into jobs once they complete the training. However, after a number of outreach efforts, including multiple post card mailing to organizations such as the Asheville Homebuilders Association, very few people with construction experience are taking part in the trainings. With ABCCM, these trainings are not paid, which might deter people who are economically challenged to take the time needed to complete training. A pathways leader of a traditional construction management program expresses the desire to have more representation of women and people of color in his program, but is unsure of how to recruit them into the program.

Many business owners commented that they don’t see color and gender, and that they make hiring decisions based on skills needed for the job. Only 2% of the survey sample say they intentionally recruit women and people of color. Among survey respondents, 74% use word-of-mouth to find new employees, which is problematic, because people with barriers to employment generally do not have access to these word-of-mouth networks.

Other ways that businesses advertise their jobs makes looking for a green job difficult. For instance, 30% of businesses advertise job openings on their website, rather than placing classified advertise-

ments in a centralized source such as Craigslist.org or even the local newspaper. These advertising practices require strong computer literacy and online research skills to compile a comprehensive list of employers and to consistently check their website to look for job openings.

Even if companies intentionally try to have diversity in their workplace, women seem to land in traditionally female occupations—administration and sales, while men of color land mostly in entry-level site labor positions. One business owner reports, “We’re very conscious about having a gender mix and a racial diversity mix and they’ve been, especially on our installation crews, we haven’t been able to get a gender mix. We have a lot of females working in the office, and...we hired a woman to do a project manager job and she’s doing a great job.”

Further, a solar energy company owner says, “we’ve had very few people of color apply for the office staff jobs positions that we’ve had openings for. Now, some of those do require some special skills sets, so we have project management, we have design, which should be running cad programs on the computer, some engineering simulations. We have accounting positions that requires either bookkeeping or accounting skills, so most of our office staff does require some specialized skill when they get here.”

Discrimination

Along with the lack of targeted recruitment, there are also more blatant forms of discrimination based on gender, race, or age occurring in the training programs and on-the-job.

On construction sites, traditionally dominated by men, women can be subject to harassment and treated differently because of their gender and the stereotypes that come with it. “Guys have a tendency to push women around in construction because it’s been a male field for so many years. The women that come into this field, this profession, they have to be able to hold their own. They have to make space for themselves and so they need a pretty strong personality that turns a lot of guys off but at the same time that’s what they need to succeed. You can’t go into a construction trailer and be timid,” reports a green pathways leader.

Focus group participants perceive that simply being black is a barrier to finding and keeping a job. Further, cultural aspects of presenting oneself as a black person, such as having dreadlocks prevents them from being taken seriously as a job applicant. One male participant says “I can see somebody’s expression on their face, if I’m asking for a job compared to if I’m just clean cut and got my tie on and everything, I get a different kind of talk towards me.”

Once hired, discrimination can persist in the workplace. A female participant described an experience working in a (non-green) retail position, where she was the only person of color. She says, “I got patted down every single day. Nobody else did. Every time it was time for closing, I’d get patted down and they’d go through my purse more than they would other people.”

“Guys have a tendency to push women around in construction because it’s been a male field for so many years. The women that come into this field, this profession, they have to be able to hold their own.” --Green Pathway Leader

She continues: “When people hire me, they always think that I’m mixed or some other race and then when they find out I’m black it’s like, ‘oh she wasn’t what she was before.’ And that’s what I’m dealing with when I go on a job.”

An older male participant, recently released from prison, describes his experience of being black in a downtown restaurant that caters mostly to tourists. “All the blacks worked in the kitchen and there wasn’t about 3 of us working on the floor. Slowly but surely, one black gets fired, then next black gets fired. Then it came down to me.”

Along with discriminatory practices based on race, many interviewees and focus group participants feel that being young is another barrier to finding work locally. A female focus group participant responds, “especially being a young person of color. It’s like they don’t want to see us, and when I say ‘they’ I mean wealthy white people who patronize these businesses. So it’s like they don’t want to see us, so the employers aren’t going to hire us.”

Once on the job, it can be difficult for a young person (similar to a woman on the job) to earn the respect of older people with more experience in the field. “Think about a 40-year old builder who’s been building for 20 years and I come into the job site and I’m 21 years-old and I’m telling them ‘this is wrong. You have to do it this way.’ How’s he going to perceive that? I think it’s a great thing that I’m moving up so quickly...I feel like my career just keeps going up and up and up and up but that can be a disadvantage as well,” reports a 21-year old HERS rater.

Economic Barriers

Some studies related to green jobs and pathways suggest that there are a number of high-demand and high paying jobs in the green economy that are going unfilled because people lack the skill and technical expertise needed to do the job (White and Walsh 8). However, this problem does not occur locally, where green businesses almost unanimously report that they have no problem finding skilled workers locally.

Not only is there little problem finding local workers to fill open slots, employers are often overwhelmed by the sheer volume of applications they get from people looking for work, even if they are not advertising or if they don’t have any open positions. One business leader says that he gets applications every week even though they rarely add employees to their workforce and those that have been there have stayed for a number of years.

Employers are overwhelmed by the volume of applications they get from people looking for work, even if they aren’t advertising or they don’t have any open positions.

Many respondents to the survey say that they would hire people with barriers to employment if there were jobs, but suggest that one of the biggest challenges to hiring anyone is the economic downturn. With many skilled workers out of work, they are competing with recent training program graduates for low-skill and entry-level positions.

A pathways leader with many years experience in the construction industry reports that “what’s happening right now in construction is there’s about six months of project lead time out there, and after

that nobody really knows what they're doing. So instead of having a three-year back-up, people now have a 6 month back-up only, maybe and so it does have an impact on the job placement." He also recounts an experience he had with an employer who advertised for a job and received 85 applicants. He advertised the job again, with higher qualifications and skill set requirements, hoping to reduce the number of applicants, but he still received 70.

Lack of Mentoring and Networking Opportunities

According to survey responses, green businesses project hiring very few people in the next year. On average, green business respondents report they will hire less than one person each. In-depth interviews with green business leaders show that when these openings do come up, they go with a "known quantity" as one business leader describes it—someone who has either worked with the company before or someone that comes with a personal recommendation from a trusted source within or close to the company.

And if they have spent any time looking for work, many people with barriers to employment express a strong desire to have access to people who know where the jobs can be found. A recent green jobs training program graduate and green job seeker desires "knowing references and knowing people to go and contact to talk to that can give me that job. Not talking to the person on the street or the person at the front counter and stuff like that."

Among green business leaders, 74% use word-of-mouth find employees which is problematic because people with barriers to employment generally do not have access to these networks.

While many recommendations in the green jobs and social justice literature revolve around strong partnerships with labor unions, North Carolina is a Right-to-Work state, which means that union-sponsored apprenticeship opportunities are few. Employers and training programs need to find creative ways to provide networking, mentoring, and apprenticeship-type opportunities targeted to people facing barriers to employment.

Barriers to Employment for Individuals

Being a woman or a person of color is itself a barrier to employment in the green economy which can be compounded with other barriers to employment. If coming from low-income neighborhoods, women and people of color are more likely to face a host of individual and institutional barriers. Much of the research dedicated to increasing access to women and people of color is couched in a broader discussion of barriers to employment that often include poverty, homelessness, unemployment and underemployment, single parenthood, a criminal record, limited English proficiency, and/or emancipation from foster care (Ella Baker Center Initiative).

This definition applies to the individuals who participated in interviews and focus groups for this study. However, beyond this broad definition, it is important to understand what personal challenges they face in order to provide appropriate services and programming. As one green pathway

leader says, “even if they do have an opportunity, their barriers don’t go away. It’s not about getting training, it’s about having the support services to help them address the fundamental barriers.”

Defining Barriers to Employment for Individuals

This study focuses on people that are or have been:

1. No or low income and/or receive public assistance;
2. People of color or women;
3. Previously homeless or in supportive or transitional living;
4. Convicted of a criminal charge or are an adjudicated juvenile;
5. Suffering from chronic underemployment or unemployment;
6. A single parent;
7. Of limited English proficiency or speak English as a second language;
8. Without a GED or high school diploma; and/or
9. Emancipated from foster care.

Definition provided by the Ella Baker Center Initiative Report “Making Green Work.”

Challenges faced by individuals are broken down into two major groups here including the challenge of meeting one’s basic needs and the challenge of overcoming the lack of education and basic skills needed to enter the green collar workforce.

Barriers Specific to Women

Across income levels and racial lines, women face a number of barriers to entering the green collar workforce. A few of these barriers include lack of access to traditionally male occupations, the continued socialization of women and traditional gender roles, and the responsibility to be the primary caretaker of children and the elderly within families.

Many green jobs stem from traditional male occupations such as carpentry, electrical work, and plumbing. Among these professions, women have continued to represent less than 5% of the workforce since 1972 (Hegewisch et al 1). This vast underrepresentation of women points to ongoing socialization (whether intentional or unintentional) which either does not encourage or blatantly discourages women from entering alternative occupations or those considered to be masculine. The Wisconsin Green Economy Public Policy Roundtable suggests that the “key reasons women do not go into the skilled trades include lack of knowledge about job training and benefits, and lack of role models via other women who have succeeded those occupations” (3).

In Western North Carolina employers and pathway leaders suggest that the physical challenges of the work—heavy lifting, crawling small and often dirty spaces, working high off the ground—deter women from entry level jobs in green construction, solar installation, and weatherization, among others. What is not clear is whether this challenge is simply perception held by employers and training program leaders, or if women feel that they can’t do the physical work required of them on green job sites.

One green pathways leader says of women that “they’re not interested in doing sweaty, nasty, dirty work.” Another pathways leader describes the challenge for women as “the physical nature of the work, things like handling the power tools takes a certain level of stupidity and confidence. I think it’s a long-term exposure to that. Guys are more willing to jump into it. If a female comes into our class, I would say one out of every three does what everyone else does, and two out of the three might stay back and let somebody else do it for her.”

The perception that the physical demands of the job are often too much for women is held by many business owners and green pathway leaders. However, in all of the interviews and focus groups, women never mentioned that they were opposed to doing manual labor and physical work. Mostly, they expressed a willingness to do whatever it takes to have meaningful work.

One female working in the weatherization field said that she doesn’t face any physical challenges, stating, “I might be vertically challenged but I can carry my weight. I’m strong. I feel like I can handle the physical challenges, especially crawling around the attic where a larger man can’t.”

Another challenge for women is that they are often designated the primary caretaker of children and elderly in their family. If they are single mothers, the responsibility requires even more time and effort that potentially takes away from the ability to train for a job or retain one successfully (Wisconsin’s Green Economy Public Policy Roundtable 3).

Meeting Basic Needs

For women and people of color living in poverty, it can be a struggle to survive day-to-day. Finding consistent housing, childcare, and transportation, all of which are necessary to secure and keep a job, can be difficult at best. A green pathway leader explains, “people that are unemployed or very low-income are living hand-to-mouth and moment-to-moment, so their barriers are whatever the immediate emergency is in their life, whether it’s their car isn’t working or they don’t even own a car, their child is sick and they have no one to provide health care or child care...So they might get started, they might be enthusiastic, but they run into some snag and we never see them again.”

A female training participant adds, “when I walk out of here, I’m telling you something negative is going to smack me in my face. But I can stand up to it or I can bow down to it and here I am. I’m probably going to be on a park bench looking for something to take my mind off it.”

Another focus group member describes the challenges of balancing family responsibilities with work responsibilities, “my personal challenge would be what’s going on with me, with my family at home...if I got that stuff going on at home and here, what do you think is eventually going to happen? Something’s going to fall.”

Single parents, especially single mothers have the added challenge of finding affordable and accessible childcare that fits their work schedule or navigating the complex voucher system that offers free child care. Many single mothers in the focus group expressed

“People that are unemployed or very low-income are living hand-to-mouth and moment-to-moment, so their barriers are whatever the immediate emergency is in their life, whether it’s their car isn’t working or they don’t even own a car, their child is sick and they have no one to provide health care or child-care...” –Green Pathway Leader

frustration at finding childcare and using the voucher system. A pathways leader says, “women have the additional challenge of being a primary childcare provider, so if they’ve got that going on, it doesn’t matter what the job is.”

Although Asheville has an extensive public transportation system, it is often not enough and inconvenient at best, with limited service in the evenings and on the weekends. A female focus group participant describes her experience: “I’ve got to wait for a bus for like a half an hour and I go up town and I got to ride another hour.” Another female adds, “by the time you get off the bus, you’re going to be tired.” A green pathway leader describes the challenges of transportation for his program participants, “it could be they don’t have a drivers license or they don’t have stable housing and the job we place them in might not pay them enough to get a place that’s close enough to town to enable them to get to a job in a reliable way.”

A few focus group participants said that they were currently homeless, couch surfing and living in their car while they look for a job. Navigating the local services and trying to stay above water are challenges that need to be addressed in any comprehensive training program for green jobs, and they are often lacking from traditional job training programs.

Mental Health

The weight of balancing the struggle to survive daily on little or no income and being discouraged in the workforce is more exaggerated when individuals face mental health challenges. A man looking for work describes the anxiety he feels every day, “I just came home [from prison] a year ago. It’s been stressful. I’ve been going down here to ABCCM trying to get something for anxiety. I can feel now, basically sometimes when I wake up in the morning, my belly be quivering. I know because I’m getting ready to face this day.”

And the search for work leaves people with barriers to employment feeling discouraged, especially after being turned down for multiple jobs. One focus group participant says that one of his biggest personal challenges is “getting turned down and having the mind to keep on.”

A few focus group participants discussed their struggle with depression. A female says, “One of the challenges when I was applying for jobs, starting with my experience keeping a job was psychological. In my early 20’s I suffered with depression really bad, and so the medicine that I had to take would kind of cripple me a little bit, to keep me from getting up on time or being sufficient enough at work. So I lost a lot of jobs that way.” A male participant describes his issues with medication as well: “I had to quit taking medicine. The medicines would make me...like violent and...just upset, like crying, anything real bad, so I just quit taking the medicine.”

Along with mental health issues, some participants struggle with addiction to tobacco, marijuana, and alcohol, which prevents them from getting and keeping a job.

Basic Skills and Education

One of the biggest barriers to employment for individuals is the lack of the basic skills, education, and experience needed for even entry-level jobs. Along with the basic level of education and experience needed, employers seek workers who have a strong understanding of professional workplace expectation and who communicate effectively.

Without much experience in school and in professional workplaces, communicating professionally and expressing one's needs can be difficult. One female trainee admits, "I didn't know how to communicate with people without being defensive and I had a real bad temper." And a male trainee adds, "I can't talk proper sometimes. I can sometimes, but I start stuttering in the interview or something, change it up, talk like I'm talking to my homeboys and I don't ever hear from them."

Along with saying the right things and talking in a professional manner, trainees are often challenged by expressing their needs and overcoming pride. A pathway leader describes his general experience working with people with barriers to employment, adding, "I do have a minority student [this semester]. He did our carpentry program and he's having a hard time with the construction management side because it's business oriented and he doesn't come in to ask for help and we have all these tutorial kinds of things we can help him with and labs and free (basically) tutors and we tell students to let us know and they'll get hooked up correctly." He continues, "...there's something about men in the classroom, where nobody wants to admit that they don't know anything, so it's sort of like by them asking you to repeat something, they demonstrate it again or do it again, they feel like it shows that they're ignorant." He says that the behavior of not asking for help is more prevalent in his African American male students.

Without a basic education and basic skills, people facing barriers to employment are further challenged when they join a training program. A green pathways leader says, "They may not have good problem solving skills because they haven't had a valid educational background or job experience, so when they get into the job environment they don't have the skills." Another green pathways leader goes on to say, "It's really difficult for us to reach the minority populations and part of it is that the minority students that come in, and I'm not talking female, I'm talking African American primarily, don't have their GEDs in place and so I think a lot of people get channeled into doing their GEDs first and so they don't really have an opportunity to participate in the program right out of the chute. And that's kind of a handicap because a person comes to school to learn electrical, let's say, or something else, what does happen is you get channeled into these GED courses and the person, if they're having a tough time with math or something they may never get past that point and get the exposure they need necessarily in the curriculum program and it's a real tough thing to overcome."

Green business leaders report in the survey and interview responses that people with barriers to employment who they have hired often require more time and resources in terms of oversight and coordination. Business leaders recount instances that the people they've hired from green jobs training programs such as Green Opportunities, often don't buy into the green mission of the program. Interviews with trainees from a few programs reveal that participants are in the training program either for the promise of a job—any job—or because the training is paid, not because it is a green job.

Transitioning from training programs to a professional, paid work site can provide additional challenges. Green businesses are often different from more traditional business models in that they offer a workplace where quality and commitment to the environment and larger community. One business owner says that his employees with barriers to employment are not buying into the green mission, that they look at it as a paycheck, and don't work hard to fit into the culture at the worksite, which includes collaboration and values the sharing of ideas of all employees. He says, "I'm not sure they know how to fit into a company, or to an organization that's very collaborative and supports each other...I think there's a big adjustment with them and they may have grown up with the mindset that a job is just a pay check and we look at this as a job—we have a mission, we have core values. It's not just a paycheck, it's a career if you want it. I think that's a shift that is a cultural shift that they may not have gotten exposed to before they got here. And it probably feels real uncomfortable for them. It's outside their box and they have to really stretch themselves to kind of be open to experiencing that."

Criminal Background

Among focus group participants and interviews with job seeker facing barriers to employment, having a criminal background seems to be the most insurmountable obstacle to finding work. Especially with the large number of people competing for a small number of available jobs, people with a criminal background are even more at risk of being excluded from the green collar workforce. Many employers surveyed and interviewed have a strict policy against hiring people with a criminal record.

Many job seekers participating in this research project spoke of their frustration going through multiple job interviews, using resources and time to travel to these interviews, and going through job training only to find out that employers do not hire people with a criminal record, even if the crime occurred more than 7 years before they apply for the job.

A female green job seeker describes this challenge: "I went through the Aspire program and during that time you build communication skills, interviewing skills, and learn how to do resumes. When they hear about jobs and job fairs they help you get to them and stuff, but as far as them having a connection with an employer that's willing to take a chance with someone with a criminal background, it ain't happening. Not at all." And, once someone has a criminal record, the label stays with them. A male focus group participant says, "they feel like you're nothing but a criminal."

A pathways leader concurs, saying that "criminal background is a huge, HUGE barrier. A lot of these folks have been looking for jobs for months and haven't had one foot in the door because, given how many people are out there looking for jobs, as soon as they see they have a criminal background, they're immediately scratched off the list because they've got a stack of 50 resumes or 50 applications ready to take the job. So that's actually the biggest barrier of all, trying to overcome that is a huge ding against them in the employer's eyes."

With the large number of people competing for a small number of available jobs, people with a criminal background are even more at risk of being excluded from the green collar workforce.

Again, with many businesses having a strict policy against hiring people with a criminal background, the amount of training and growth that a person has does not help them to move forward.

Summary: Challenges to Building an Inclusive Green Economy

In spite of many advocacy groups and research pointing to the promise of the green economy as an effective pathway out of poverty for people facing barriers to employment, there is still a long way to go. These vulnerable groups, including which include women and people of color, face a number of personal challenges as well as institutional barriers to gaining employment in the green economy.

At the individual level, women and people of color may face numerous obstacles, including issues related to mental health, struggling to meet basic needs, overcoming a criminal background, and lack of education or skills required for green jobs. At the institutional level, women and people of color face a number of barriers to employment including the lack of targeted recruitment to green jobs, blatant forms of discrimination, lack of available green jobs, and the lack of access to mentoring and networking opportunities.

Recommendations for addressing these barriers will be discussed in the following section dedicated to understanding the best practices for training and placing people facing barriers to employment in green jobs.

Recommendations for Training and Employing Women and People of Color in Western North Carolina's Green Economy

The Green Jobs Act of 2007 along with tax breaks and incentives outlined in the American Recovery and Reinvestment Act prioritize the training and placement of at-risk youth, displaced workers, and veterans in green jobs (Cleary and Kopicki 4). People facing barriers to employment, including women and people of color, are being touted as the likely beneficiaries of these policies by many policy makers, but little direction is provided on how to break down barriers in order to support, train, and effectively place them in the green collar economy.

Because of the newness of most of these programs, proven methods and strategies for training and placing people with barriers to employment are still in development. However, a number of non-profit organizations and government agencies make recommendations for the successful growth of the green collar sector.

This section makes recommendations for increasing the presence of people of facing barriers to employment in the local green economy based on a review of the literature and information gleaned from the surveys and interviews with green business leaders, green pathways leaders, and green job seekers and employees.

This overview of best practices is aimed at green jobs training and education programs, policy makers, and community leaders looking to provide more effective services and increase the presence of women and people of color in the local green collar economy.

Benefits of an Inclusive Green Economy

Before discussing the best practices for including people facing barriers to employment it is first important to understand why it is so desirable to have a diverse workforce inclusive of women and people of color from low income neighborhoods. For many authors, advocates, and activists such as Van Jones, targeting green collar jobs and training to people facing barriers to employment is an issue of social and environmental justice. People in low-income neighborhoods are often most susceptible to harmful environmental practices, either in inefficiently weatherized houses, or because they are located closest to industrial pollution sources. From a social justice perspective, the people most impacted must be the first to benefit from green policies directed at creating good green jobs.

Respondents from the green business survey report a desire to have a diverse workplace for a number of reasons, including attracting and more effectively serving a more diverse customer base. One business manager writes, "people want to do business with people who are like themselves. Having diversity in the workplace brings new ideas and approaches to problems, and can help diversify your customer base."

In the view of some business leader survey respondents, diversity in the workplace brings more fun and provides a healthy environment for everyone in the organization. Further, a diverse organization is a stronger, more responsive one. A respondent writes that diversity in the green industry provides a “broader range of ideas and experience with which to grow the business and relate to our customers.”

Follow-up interviews with business leaders provide more detailed reasons for including women and people of color on the worksite. A business leader in a weatherization company says that having women on the worksite improves the atmosphere and raises the standard of behavior. He says, “I’ve seen a very positive benefit, reason being, I’ve been in the construction field for a lot of years and I know what it’s like with a bunch of guys around. I think that by having women on board it’s improved their manners and I’m not hearing the dumb sexual jokes that I’d rather not hear. It’s not professional. It’s a different thing if you’re on a framing crew and you’re the only ones who are out there, but there’s no room for us to tolerate [it]. All in all I think it’s good for morale—I really get pleasure of seeing a smiling woman on the workforce.”

***“People want to do business with people who are like themselves. Having diversity in the workplace brings new ideas and approaches to problems, and can help diversify your customer base.”
--Green Business Leader***

Other business leaders share his sentiment. One owner of a renewable energy company states, “I worked with a woman in construction and she was the best person on the team, maybe not having the most tool skills but she was a real team player, less likely to get into conflict.” Another business owner adds, “We really like having women in our workplace. To me it balances the energy and makes it more even.”

Recent graduates of green job training programs provide some examples of how they contribute to the work environment. They recount a few reasons below:

“There were a lot of benefits for me in that I was working with these men who had experience and showed patience with me in terms of training me on the job site, [and] showing me certain skill. I think that they...enjoy the fact that I am more willing to talk to the customers than they are, more comfortable in social situations, asking customer questions, and letting them know what we’re doing.” --Female weatherization employee

“I’m fluent in Spanish and so far we have the low-income weatherization for low-income people and there are so many Hispanic families out there and I feel like it’s my duty to help them. So far I’ve got two families who I’m helping each step of the process” --Male green jobs employee

“It’s funny how strong stereotypes hold. Somehow I’m kind of like a mother because we get in the truck and I’ll have taken care of the things people forget. I feel comfortable talking to customers, saying goodbye, if there’s an issue, no problem. Organization, all of these things I’ve been trained to do in college.” --Female weatherization employee

Although many business leaders express a strong desire to intentionally diversify their workplaces, there doesn't seem to be a clear understanding of how to effectively do so. This report provides suggestions for taking steps to include women, people of color, and disconnected youth in training programs and green jobs locally.

Recommendations for training and placing women and people of color in Western North Carolina's Green Economy include:

- Strengthening partnerships and collaborations;
- Increasing targeted recruitment and outreach to people facing barriers;
- Standardizing green educational and training programming;
- Increasing access to wrap-around services;
- Participating in economic development and social enterprise;
- Creating mentoring, networking, and apprenticeship opportunities; and
- Measuring and evaluating training programs and access to green jobs.

Recommendation #1: Strengthen Partnerships and Collaborations

One of the most important parts of taking an integrated approach to green jobs training and creation is the strengthening of community partnerships and collaborations. The two overarching benefits of cultivating strong partnerships, as found in the literature, are the effective coordination of information and resources within the community in order to avoid unnecessary duplication of services (Murphy et al. 16, Cleary and Kopicky 10) and the holistic and systematic approach to green jobs creation, linking educational and training programs to job opportunities (Murphy et al. 16).

An ideal collaboration involves a partnership between educational/training programs, green businesses, non-profit agencies, government agencies, and labor unions (Chicagoland Green Jobs Initiative 13, Jones 197). Cleary and Kopicky suggest a "Green Jobs Talent Network," a coalition of educational institutions (including high school and university), workforce and economic development system stakeholders, labor and community-based organizations, clean energy companies, and industry associations "in order to provide and support a trained and job-ready workforce for green jobs" (9). Similarly, Jones calls for a "Green Growth Alliance" where organized labor, social justice activists, environmentalists, students, and faith-based organizations work in partnership with green businesses to provide services and connect program graduates to jobs. Further, the non-profit organization Green for All promotes "Green Industry Clusters, which is an economic development partnership utilizing venture capital funds, business incubators, and public and private loans and grants.

Locally, many organizations work in tandem to provide comprehensive services to green jobs program participants with barriers to employment. The YWCA of Asheville provides childcare services, while GO and ABCCM provide the gamut of wrap-around services, including educational assistance, financial advising, and social support, connecting to outside agencies if they themselves do not provide the services.

In the fall of 2010, a group of local green stakeholders formed to increase the representation of women and people of color in local green jobs. This group consists of representatives from educational institutions, green training programs, non-profit organizations, economic and workforce development organizations, local government, federal government, and faith based organizations. A major aim of this stakeholder group is to develop an ongoing partnership that can work together to

make recommendations and develop action steps for increasing access to green jobs for people with barriers to employment. This stakeholder group continues to meet and strengthen networks and partnerships between parties dedicated to creating and sustaining a just, local green economy.

Recommendation #2: Increase Targeted Recruitment and Outreach of People Facing Barriers to Employment to Green Jobs and Training Programs

According to the results of this research, few women and people of color are applying for green jobs and green jobs training programs in Western North Carolina. For women especially, green jobs in construction, solar installation and weatherization may not be in the forefront of their perceived career options. A major recommendation from this research is to launch a targeted outreach campaign to promote the promise of green jobs to women and people of color. This is especially important given the relatively high wages for green jobs, even at the entry-level.

Many green collar advocates suggest that exposure to green and technical careers needs to begin at an early age, encouraging girls and people of color to excel in math and science classes (Muphy et al.). Action steps from the Women, Jobs, and Wisconsin's Green Economy Roundtable include the call to "educate girls, parents, teachers, and counselors to encourage young women to pursue opportunities in the green economy, particularly related to technical, skilled trade and other STEM [Science, Technology, Engineering, and Mathematics]-related fields." Further, vocational education in public schools should make a concerted effort to include women and at-risk youth (5).

To increase the participation in green jobs training programs and in the green economy in general, the prevailing research along with the local stakeholders group suggests that local partners collaborate to develop a coordinated outreach program, pooling resources and contacts. A report sponsored by the Alliance for Sustainable Colorado and the US Department of Labor Women's Bureau suggests a marketing campaign that targets women for green jobs training (Muphy et al. 17). The local stakeholders group suggests advertising as widely as possible, branching out to local media to feature stories that specifically highlight the aspect of people of color and women within the green industry.

Local stakeholders also suggest service-learning programs as a way to expose students to green tasks and provide an opportunity to gain hands-on experience. Another recommendation from the stakeholders group is to introduce green projects in low-income communities in order to demonstrate that green careers are a viable option for them. These potential demonstration projects such as home weatherization, green community centers, and community gardens will provide positive examples of how green technologies benefit their communities and of how green jobs are a possibility for them.

Beyond programs that specifically target people of color and disconnected youth such as Green Opportunities, the YWCA of Asheville, and the Asheville-Buncombe Community Christian Ministries (ABCCM), green jobs training programs do little targeted recruitment. Their enrollment reflects this. It is essential that these programs, which offer great networking opportunities and high placement rates, more actively include people with barriers to employment to their programs.

AB Tech has an extensive recruitment process that is wrapped up in their community outreach efforts. They do demonstration projects at local schools, sometimes in low-income neighborhoods,

where students of the programs do an environmental building project. AB Tech also works with the Evelyn Kimball Foundation to host a construction camp to reach middle school-aged children and introduce them to green building. The Construction Management program started its own website outside of the college (www.ashevillegreenbuildingschool.com) to reach out to potential students all over the country and promote green building and other green technologies in the building process. The reputation of the program is largely positive in the community, and often its students are the best recruiters of other students. While these recruitment efforts are not targeted to women and people of color, they could easily be re-targeted, or mimicked by other organizations that do target these groups.

The most successful recruitment strategies for ABCCM have been ads on Craigslist, posters at the Employment Security Commission and connections with Mountain Area JobLink. For their biofuels training class, they were able to fill it because of a last minute newspaper article highlighting the program and its benefits.

In general, ABCCM targets people with barriers facing employment, including people who are at least 18 years of age and from a targeted low-income neighborhood. Participants must also be either unemployed or low income and have either a criminal record or lack a high school diploma, or be a Veteran. Recruitment for programs is proving to be challenging for ABCCM, especially in attracting women, which points to the need to start education and awareness of opportunities in green careers at an earlier age.

Introducing green demonstration projects in low-income communities built by community members increases the awareness that green jobs are an option for people facing barriers to employment.

After a few years working in low-income neighborhoods, Green Opportunities (GO) has built a local reputation as a viable training option for people facing barriers to employment. They partner with local agencies and services to recruit from low-income neighborhoods. The majority of their program members are people of color and they currently have a strong representation of women in their Asheville GO training program. Much of their training is on-the-job, working on projects in low-income neighborhoods.

Recommendation #3: Standardize Green Educational and Training Programming

Most green jobs advocates and practitioners agree that comprehensive curriculum development in green jobs training programs targeted to people facing barriers to employment should provide a mix of classroom learning, hands-on experience, support services, and environmental literacy. The Ella Baker Initiative outlines a curriculum based on the Pinderhughes Model and the California Apprenticeship Council that has seven main components. At the base of this curriculum are the content areas of soft/basic skills, hard/vocational skills, financial literacy, environmental literacy, and a paid internship or on-the-job training (Ella Baker Initiative 17-19). Because the support services portion of curriculum is discussed in the “wrap-around services” section of this paper, this section focuses on the basic skills, vocational skills, and environmental literacy aspects of curriculum development.

Basic Skills Training

Basic skills, which include communication skills, are vital to the successful hiring and employment of people with barriers to employment. Also known as job readiness training, basic skills “trains and coaches job seekers on just what is expected of them as workers. Basic adult education in academic skills is also crucial” (Green for All 6). The Ella Baker Initiative refers to basic skills as “soft skills” such as basic literacy, interviewing skills, diversity and sexual harassment training, life skills, and time and anger management.

Many employers interviewed stated that beyond having basic vocational skills, it is the communication skills, working within a team, and a strong work ethic that ensure the success of the green employee. One green construction company owner says that the most important factor, aside from skills and experience, is “attitude, attitude, attitude, enthusiasm, and presentation.” A renewable energy company owner adds, “what we can’t teach is the work ethic and collaboration and working with their co-workers and those interactions. Those are more important. We can train them, we can give them the skills.”

One training program graduate says that one of her favorite parts of the training was the team-building exercises. “That was the best part that I liked about the training, was actually getting to know who I was going to be working with before I started working with them.” Another graduate adds “I think one of the biggest things that really helped me was it created a sense of family within the group. At the same time it created sort of like competition, but not in a bad way. It was like, ‘Oh, I can work harder than you’ kind of thing. And we’ll help each other so teamwork was a big, big thing.”

Another aspect of basic skills training includes learning how to present yourself professionally. A female working at a weatherization company reflects on how her training prepared her for her green job, stating “I knew how to present myself in a way, I had to make good presentation, made myself appear desirable for hire...I wouldn’t call it training, so much as exposure.”

Vocational Training

Vocational training that provides hands-on experience to program participants teaches skills in using basic tools, reading a tape measure and blue prints, and health and safety training. The emphasis here is on basic construction skills, as most local employers prefer to do on-the-job training to make sure that employees meet their quality standards.

These recommendations are corroborated by our interviews with green business leaders who value health and safety and basic tool usage as well as a general familiarity with construction site and workplace culture. Local green business leaders prefer to provide on-the-job training to ensure that employees are trained properly and within the specific technological framework of the company.

Survey findings show that women are more likely to be in administrative positions within green companies. Murphy et al. propose including these positions as green jobs, stating “over half the jobs in the green fields are in administrative and supportive roles. These need to be valued and upheld as a green job” (16). Expanding vocational training to emphasize administrative tasks and computer

skills may attract more women to green careers and may also address the low number of people of color in administrative roles within local green companies.

Environmental Literacy

Finally, it is imperative that green jobs training programs be grounded in the values of ecological sustainability. It is environmental literacy that distinguishes green jobs trainings from other traditional training programs. From interviews with green employers in California, Cleary and Kopicki find that entry level jobs in green industries are often adapted from traditional occupations such as carpentry, plumbing, and HVAC, and therefore require little beyond basic construction or installation knowledge. Just as the Ella Baker Initiative suggests that environmental literacy be part of a comprehensive curriculum, Cleary and Kopicki find that employers are looking for broad knowledge of green values, including sustainability, green technologies and processes, and life-cycle analysis (7-9).

Green Jobs training programs targeted to people facing barriers to employment should provide a mix of classroom learning, hands-on experience, support services, and environmental literacy.

Further, promoting an environmental agenda links program trainees and graduates to work that serves a higher purpose and makes a difference. One female graduate says “I knew I was making a difference, like right there on the spot...with the weatherization.” Another graduate says, “working in a green job makes sense, gives you a purpose, gives you a final goal. Working for other jobs, you[re] just working for the money. When I say that I like my work, I love what I do, it’s because I like waking up in the morning and knowing that whatever I do today...it makes sense and it’s fulfilling.” He recalls his best on-the-job training experience as a weatherization job for a woman that reported to him that she was able to sleep for the first time that winter because of his efforts. Linking training and work to a higher purpose of sustainability and community promotes commitment to work and to each other.

Recommendation #4: Increase Access to Wrap-Around Services

For any program targeted at people facing barriers to employment, including women and people of color, the inclusion of wrap-around services are crucial part to ensuring success. It is these services that most differentiate these training programs from others not targeted to people with barriers to employment. Wrap-around services consist of social service networks found in local government and non-profit agencies, including but not limited to child care, transportation, housing, mental health, physical health, financial stability, and educational achievement (Ella Baker Initiative 22, Green for All 3).

For green jobs training programs serving people facing barriers to employment, the effective offering of wrap-around services involves trained counselors developing individualized plans based on needs assessments. Ideally, counselors and participants meet regularly to evaluate progress and continue to assess the needs of the clients. Further, wrap-around services are “equally important for graduates as they find jobs and adjust to the realities and challenges of employment” (Ella Baker Initiative 22).

Locally, ABCCM provides access to medical ministry, crisis counseling, clothing, financial assistance for housing and heating, and veteran's services. Green Opportunities partners with ABCCM to provide training, and both utilize public transportation and childcare through the YWCA of Asheville.

Providing advocacy to the program graduate and support to the employer is especially important to those people whose biggest barrier to employment is a criminal record. A local business leader says that it is the work of the jobs training program in providing ongoing support for its graduates that encourages him to hire from that program. He says, "we work with Asheville GO [Green Opportunities]. We certainly appreciate the program they have to go through in order to get to this point. Quite frankly, we may not have hired those people if the hadn't come through Asheville GO." Comfort working with GO graduates stems from the wrap-around services and continued advocacy on their part.

From interviews with one renewable energy business owner—what makes him feel comfortable hiring someone with barriers to employment is the access to support services, knowing that if there's a problem with an employee, that there's a third party who can intervene or help out. A green pathways leader adds, "we want to present employers with this person we've worked with over time and we can say, 'look, they've been through these trainings, this is how they've performed.' And we're putting our name on this person and if you've got a problem with them, you're going to call us and tell us and we're going to yank them and give you somebody else. We become a trusted screened labor force watcher."

Recommendation #5: Participate in Economic Development and Social Enterprise

Another recommendation to successfully place green collar training program graduates is for green jobs training programs to dedicate part of their program to workforce development or social entrepreneurship (Green for All). With one of the biggest barriers to employment being the lack of green jobs available, job creation is becoming an essential part of green jobs training across the country and locally (Buffalo ReUse, Chicagoland Green Collar, etc.).

According to the Chicagoland Green Jobs Initiative, the types of occupations with the most growth potential in the short term are energy efficiency measure installers and energy efficiency auditors (5). In Asheville, Green Opportunities started the GO Energy Team, which provides weatherization services and employs program graduates. After being awarded a federal grant to train and place a large number of people with barriers to employment, ABCCM finds itself in the position of workforce development as well, considering a new focus on enterprise that will employ its graduates.

Green for All suggests that successful social enterprises stemming from green jobs training programs:

- Dedicate resources to marketing, and laying a foundation for the business;
- Ensure workers are trained to do quality work;
- Provide decent wages; and
- Provide support services

A major local resource for enterprise is Mountain BizWorks, which provides training and start-up funding for local entrepreneurs. They oversee the local chapter of the U.S. Small Business Association's Women's Business Center, which specifically targets economically disadvantaged women and provides one-on-one counseling, mentoring and networking opportunities with other entrepreneurs, credit and loan counseling, and workshops. These services are also available to men. While many of the entrepreneurs helped by Mountain BizWorks are considered green, they do not provide services specific to green businesses.

With one of the biggest barriers to employment being the lack of green jobs available, job creation is becoming an essential part of green jobs training programs.

In serving populations facing barriers to employment, it is recommended that social enterprise efforts be administered by the program offering green training. Local green training programs who have demonstrated some level of workforce development include ABCCM, Green Opportunities, and AB Tech. Strategies include home weatherization, building and selling small green homes, and making biofuels.

A local green business owner suggests that training programs looking to place graduates or trainees develop a temporary labor pool that local businesses can call on to find short-term work with little notice. Providing access to temporary labor presents another opportunity for social enterprise within training programs targeted to people with barriers to employment. Green Opportunities currently provides a temporary labor pool from its graduates.

Recommendation #6: Create and Expand Mentoring and Networking Opportunities

Effective green jobs training programs provide valuable connections between green business owners or hiring managers, and their program graduates. Apprenticeships and internships provide an opportunity for potential employees to gain experience on the job, but also make connections and prove themselves as capable workers, perhaps resulting in a strong personal recommendation.

Many survey respondents state that they don't see color or gender when hiring and that they hire the best person for the job. As found in the survey results, the "best person for the job" is one who has access to word-of-mouth networks, and most of the time is a white male. People with barriers to employment lack access to these word-of-mouth networks. Increasing access to networked green professionals is essential for the success of people with barriers to employment, especially in such a competitive job market. The re-evaluation of workforce hiring policies is necessary in order to promote a workplace more reflective of the communities it serves, especially in green industries, which espouse social and environmental justice values.

Further, mentoring programs that provide one-on-one contact with management and supervisory personnel will increase access to potential employment and advancement opportunities (Muphy et al., *Why is Green Good for Women?*) A local business owner in renewable energy says that "personal recommendations are really powerful" in the hiring of employees.

Focus groups with green job seekers revealed that they long for access to networks of employers and other employees so they have more access to available jobs. It is strongly recommended that training programs partner with non-profits and green businesses to increase the number of apprenticeships and mentoring opportunities to people facing barriers to employment. As graduates from training programs such as Green Opportunities and ABCCM enter the workforce, they can provide one networking opportunity.

Recommendation #7: Measure and Evaluate Training Programs and Access to Green Jobs

Aside from justifying funding, a clear understanding of industry and the targeted population needs help create effective policy and programming aimed at training people facing barriers to employment.

Research should include a detailed labor market analysis, with information on green occupations, wage and benefit structures, and projected job growth. Secondly, local green jobs research should evaluate the employment and training delivery system locally with the goals of identifying training gaps, curriculum needs, and potential pathways (White and Walsh 51). This research report provides this information for a small sample of the local green businesses in Western North Carolina. It is recommended that further research efforts be made to gain a more accurate understanding of the local green job opportunities and the training programs locally.

Other directions in evaluation of training programs include measuring retention of program graduates after 90 days, 6 months, and a year, to “determine if and how the graduates are employed and evaluate the effectiveness of the program in preparing graduates for the workforce” (Ella Baker Center Initiative 24). Ongoing dialogue and feedback to training programs from employers is also suggested to improve the curriculum, job readiness, and job placement.

Green for All suggests that research be coordinated among all green jobs training programs to develop a clear picture of the demographic make-up of students, placements, and retention data.

Further, research can provide insight into the positive environmental impacts that each job has, understanding how placements help contribute to the reduction of greenhouse gases, water uses, waste, etc (Green for All 7).

Effective research methods needed will require the coordination of ongoing data collection across local green training programs and green businesses related to hiring policies, graduation, and placement and retention rates to offer a few measurements of growth and success.

Conclusion

This report provides an analysis of how well Western North Carolina is doing to place and train women and people of color in the local green economy and explores the challenges to doing so more effectively. It also identifies a number of specific solutions to these challenges at the individual and institutional levels.

Local indicators measuring the success of the local green economy show that green jobs are good quality jobs, usually offering a living wage, health benefits, and flexible schedules. In green businesses locally, while women are not well represented in site labor and site supervisory occupations, they are well represented in upper-level administration and ownership positions, which tend to pay above \$25 an hour. People of color are mostly found in entry-level site labor positions. In looking at survey data, it is clear that green businesses do not actively recruit women and people of color, and in fact, utilize practices to advertise for jobs that exclude them, including depending on word-of-mouth to find new employees.

Women and people of color face a number of barriers to employment in the green economy both at the individual and institutional levels. Individually, people of color and women, especially those from low-income neighborhoods, struggle to meet basic needs on a daily basis. This struggle may be compounded by mental health issues. Finding and keeping a green job—or any job for that matter—can be impeded by one’s lack of education and/or skills and one’s criminal background.

A number of institutional barriers exist which perpetuate the underrepresentation of women and people of color in the green economy. There is a general lack of awareness about the opportunities for green careers, and green businesses and training programs are not actively working to recruit women and people of color into their organizations. Further, there is a lack of networking and mentoring opportunities available to women and people of color in green careers.

This report makes a number of recommendations which address these challenges to building an inclusive green economy. Recommendations include strengthening partnerships, increasing targeted outreach, standardizing training programs, increasing wrap-around services, promoting social enterprise, and expanding networking opportunities.

While Western North Carolina’s green economy is doing well in some areas to include more women and people of color in green jobs and green training programs, there is a long way to go to increase the representation of these populations. The local group of stakeholders in the green economy is working with these recommendations to create action steps to create a more inclusive green-collar workforce.

Works Cited

- Bureau of Labor Statistics. "BLS and Measuring Green Jobs: Discussion Draft for Workforce Information Council" 2009.
- Chicagoland Green Collar Jobs Initiative. "Building a Green Collar Workforce in Chicagoland." 2009.
- Cleary, Jennifer and Allison Kopicki. "Preparing the Workforce for a 'Green Jobs' Economy." John J. Heldrich Center for Workforce Development. February 2009.
- Dillman, Don A. Mail and Internet Surveys: The Tailored Design Method. New York: John Wiley & Sons, Inc. 2000.
- The Ella Baker Initiative. "Making Green Work: Best Practices in Green-Collar Jobs Training." 2010.
- Green for All. "Green Pathways Out of Poverty: Workforce Development Initiatives." 2009.
- Hegewisch, Ariane, Hannah Liepmann, Jeffrey Hayes, and Heidi Hartman. "Separate and Not Equal? Gender Segregation in the Labor Market and the Gender Wage Gap." Institute for Women's Policy Research. 2010.
- Liu, Yvonne and Terry Keleher. "Applied Research Center Green Tool Kit: Standards and Strategies for Advancing Gender and Economic Equity in the Green Economy." Applied Research Center. 2009.
- Murphy, Carrie, Janna Six, and Kat Williams. "Green Jobs Pipeline for Women: Best Practices Report." Alliance for Sustainable Colorado. August 2010.
- North Carolina Sustainable Energy Association. "North Carolina Renewable Energy & Efficiency Industries Census: 2009." www.energync.org. October 2009.
- Pinderhugues, Raquel. "Green Collar Jobs: An Analysis of the Capacity of Green Businesses to provide High Quality for Men and Women with Barriers to Employment." City of Berkeley's Office of Energy and Sustainable Development. 2007.
- Public Policy Roundtable. "Summary Proceedings of the Women, Jobs, and Wisconsin's Green Economy Public Policy Roundtable." 2009.

U.S. Census Bureau. "Quickfacts for Buncombe County, North Carolina." Quickfacts.census.gov. 2009.

US. Department of Labor. "Why is Green Good for Women? Fact Sheet." March 2010.

White, Sarah and Jason Walsh. "Greener Pathways: Jobs and Workforce Development in the Clean Energy Economy." 2008.

Women's Economic Security Campaign in conjunction with Wider Opportunities for Women. Date? "Creating Opportunity for Low-Income Women in the Green Economy."