



Wider Opportunities for Women

WOMEN AND THE GREEN ECONOMY

February 2009

The Green Economy holds a clear promise to build sustainable communities that are energy efficient, safe and healthy. This movement also holds the promise of moving more women into career paths that will offer them the opportunity to become economically secure and support themselves and their families. Green building represents an integrated approach to planning, designing, constructing and maintaining commercial and private buildings. Green jobs will draw on many of the skills currently called upon in the building and trade fields. These jobs once were termed “non-traditional occupations (NTO)” for women because women represented less than 25% of the workforce. These jobs continue to be ones where women are significantly under-represented. Policy makers, funders and contractors can use the opportunity presented in this emerging field to eradicate past inequities and ensure that women will be full partners in this green revolution.

An investment in green jobs, and the necessary investment in women to meet a growing demand, will pay huge rewards. A recent study found that California’s green jobs initiative created jobs and cut energy costs allowing the state to spend more to encourage economic growth in other areas.¹

Where Are the Women in Occupations Going Green?

- Well paid, career track jobs that contribute directly to environmental quality represent a potential new face of the American economy. The American Solar Energy Society estimates that in 2006 alone, renewable energy and energy efficiency were responsible for \$970 billion in industry revenues and 8.5 million jobs.²
- Some green-collar jobs (e.g. wind turbine technician) are new occupations. However, most are similar to existing jobs but demand new skills and knowledge. Current and emerging green jobs are in the skilled trades: manufacturing, construction, operation and maintenance, and installation. Many require more education than a high school diploma but less than a four-year degree.³
- The National Renewable Energy Lab has identified a shortage of skills and training as a leading barrier to renewable energy and energy efficiency growth.⁴
- Women remain underrepresented in the major categories of jobs going green.

See chart on page 4 for Occupation and Wage information.

¹ Roland-Holst, David “Energy Efficiency, Innovation, and Job Creation in California”. Center for Energy, Resources and Economic Sustainability, University of California. October 2008

² Renewable Energy and Energy Efficiency: Drivers for the 21st Century

³ Green-Collar Jobs in America’s Cities: Building Pathways out of Poverty and Careers in the Clean Energy Economy, Apollo Alliance

⁴ Nontechnical Barriers to Solar Energy Use: Review of Recent Literature



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Skill Development Programs Tailored to Women Pay Big Dividends⁵

- The Women in Apprenticeship and Nontraditional Occupations (WANTO) Act of 1992 provided for technical assistance to employers and labor unions in the placement and retention of women in apprenticeships and non-traditional occupations. Such programs have assisted many women in securing non-traditional occupations.
- An independent study has shown that when a Nontraditional Employment for Women Act or WANTO funded program was implemented in an area, local women were 25% more likely to hold a nontraditional job, and that even in years after the policy intervention, women were still more likely to hold nontraditional jobs.⁶

Holding a Non-Traditional Occupation Increases a Non-College Woman's Chances of Attaining a High Wage Category by 48.66%⁷

- Despite its success, the WANTO program has struggled for funding over the years. Through 2003, annual appropriations approximated the authorized level of \$1 million. The program was defunded for several years and resumed in 2006. \$1 million in WANTO funds were available for programs applying in 2008.
- Competitive grants are awarded to community-based organizations which work with organized labor and the local workforce board to build lasting partnerships and provide needed technical assistance.
- WANTO programs promote a wide range of effective strategies for assisting women to enter and succeed in nontraditional and apprenticeship-based occupations including pre-job apprenticeship training programs, creating support networks through mentoring programs or group meetings, and one on one contact with management and supervisory personnel to shape workplaces to better receive and retain women.

See chart on page 5 for Success Stories.

Key Elements Should Be Considered When Placing Women in Nontraditional/ Green Jobs⁸

Recruitment

- It is necessary to dispel myths about gender, race, and sexual orientation for staff or members, and the women being recruited.
- Women must be given specific information about nontraditional jobs, such as job titles and salary ranges, as many women are unfamiliar with nontraditional work.
- Employers must assess skills, abilities, and aptitudes for nontraditional work by incorporating information on transferable skills into the hiring process and utilizing aptitude tests that are as bias-free as possible.
- Recruitment sources must be expanded to include job training programs and community-based organizations, pre-apprenticeship programs, and secondary and vocational education systems. Contacting local women's employment training programs and career centers.

⁵ U.S. Department of Labor Women's Bureau

⁶ Mastracci, Sharon H. "Labor And Service Delivery: Training Programs for Women in Nontraditional Occupations" University of Texas at Austin, 2001.

⁷ Labor Pains: Employment and Training Programs for Women in NTOs, Ann Arbor: UMI Publishing. Copyright Sharon H. Mastracci, PhD, 2001

⁸ Wider Opportunities for Women Workplace Solutions- <http://www.workplacesolutions.org/>

Orientation

- An overview of the training program, including information on how apprentices are graded, must be provided.
- Information must be provided to all employees on the formal and informal rules and regulations on the job, including company policies supporting women in nontraditional jobs and prohibiting discrimination and sexual harassment.
- Problems of isolation and stalled skill development by assigning several women to the same work environment must be avoided. A buddy or mentor who will teach skills and be supportive and who will identify appropriate skill assignments must be identified.
- Access must be provided to training opportunities for women to learn skills through occupationally-specific math training, pre-vocational training such as tool identification and safety, and physical conditioning.

Retention

- The company or union must have strong policy statements that prohibit unlawful discrimination and support women in nontraditional jobs.
- Key issues should be addressed that commonly affect women, such as job assignment and promotion, family care and transportation, and health and safety concerns.
- Employers should offer benefits and supports to attract qualified entry-level women workers including:
 - Health care
 - Child care referral services
 - Van pools
 - Housing assistance to purchase a first-home
- Promoting the development of support mechanisms for women on the job, such as placing more than one woman on a worksite, encouraging support groups, and setting up online networks are essential to keeping women in these jobs.
- As simple as it sounds, ensuring that there are proper facilities and equipment for women on the job is key.
- It also helps to monitor the progress of the union or company in preparing the workplace for women on an ongoing basis through nontraditional task forces and by conducting exit interviews.

Sexual Harassment

- A strong written policy prohibiting illegal discrimination against any employee that specifically addresses sexual harassment as prohibited conduct and describes steps to be taken if harassment occurs should be created.
- Formal and informal problem solving mechanisms, grievance procedures, investigative measures, and disciplinary procedures to resolve sexual harassment complaints have great importance.
- Conducting awareness trainings regularly for supervisors to review organizational policy, build problem-solving skills, review relevant law, and discuss their responsibility to create a harassment-free workplace are all valuable tools.
- Providing ongoing sexual harassment awareness training for every level of employee or union member should be part of every business plan.

Average Pay & Women's Employment in Occupations Going Green

Energy Efficiency Building		
Occupation	Percent Women	Average Annual Salary
Construction Laborers	2.7	\$30,950
Sheet Metal Workers	3.7	\$42,640
Insulation Workers	1.9	\$41,480
Cement Masons and Concrete Finishers	2.2	\$37,300
Heating, Air Conditioning & Refrigeration Mechanics and Installers	0.9	\$40,630
Hazardous Materials Removal Workers	n/a	\$39,210
Plumbers, Pipefitters & Steamfitters	1.5	\$47,350
Carpenters	1.9	\$41,260
Electricians	1.7	\$48,100
Boilermakers	n/a	\$51,420
Wind		
Occupation	Percent Women	Average Annual Salary
Team Assemblers	n/a	\$26,470
Laborers & Freight, Stock and Material Movers: Hand	18.6	\$23,840
Computer Controlled Machine Tool Operators	n/a	\$33,690
Cutting, punching, & press machine operators; metal & plastic	21.6	\$28,540
Drilling & Boring Machine Tools Setters	n/a	\$32,050
Customer Service Representatives	68.5	\$31,040
Welders	8.1	\$33,960
Production, Planning & Expediting Clerks	54.3	\$41,050
Machinists	5.2	\$36,370
Maintenance & Repair Workers: General	3.1	\$34,350
Sources:		
-Top in-demand middle skill occupations from Center on Wisconsin Strategy, <i>Greener Pathways: Jobs and Workforce Development in the Clean Energy Economy</i> , 2008		
-Current wage data for all workers from The Bureau of Labor Statistics "National Occupational Employment and Wage Estimates May 2007", http://www.bls.gov/oes/current/oes_nat.htm		
-Percentage of women from U.S. Department of Labor Women's Bureau "Nontraditional Occupations for Women in 2007", http://www.dol.gov/wb/factsheets/nontra2007.htm		

Success Stories

The International Masonry Institute

IMI conducted pre-job apprenticeship training programs in four key regions—New England, Chicago, Seattle, and New Jersey. Over the 1996-1997 grant period, the number and proportion of women in the International Union of Bricklayers and Allied Craftworkers' pre-job apprenticeship programs increased from 14 to 47 women or 6% of total enrollment, nationally, and 9% in the pilot areas.

www.workplacesolutions.org

Chicago Women in the Trades (Chicago, Illinois)

CWIT worked with seven training programs in woodworking, tool and die making, and metalworking. In fiscal year 2006, CWIT's Technical Opportunities Program (TOP) provided 4,525 women with information about high-skill, high-wage nontraditional careers at 144 information sessions, orientations, and/or job fairs. 66 women enrolled in TOP, 43 graduated. 88 women were accepted into apprenticeship programs and oriented to nontraditional employment at an average wage of \$14.18. Women who have completed the program have gone on to become carpenters, bricklayers, quality control inspectors, elevator mechanics, laborers, electricians, machine operators, and much more.

http://www.chicagowomenintradest.org/artman/publish/article_206.shtml

Century Housing Corporation's Women's Employment Program (Los Angeles, CA)

CCTP has a special emphasis on recruiting and supporting women in the construction trades. CCTP also coordinates the Tradeswomen Advisory Council, a support network that pairs journey-level tradeswomen in mentoring relationships with new entrants.

Participants meet regularly to encourage one another, share work place concerns, and share job opportunities. The program has trained more than 2,200 Southland residents and has placed in construction trades more than 1,600 of them—12% are women, almost double the national average. More than 85% of these placements are in high paying union jobs.

<http://www.centurycommunitytraining.org/about.htm>

Heart of Texas Council of Governments

HOTCOG provided a full-time, rigorous 14-week pre-training program: *Transformation Through Technology*; for seventy women, which addressed basic workplace behavior such as timeliness, consistency, conflict resolution, and basic reading and math – to achieve an 8th grade reading and math level. The project reported training and placing 85 women over the grant period. Among the key short-run attributes were the pre-training services, ongoing mentoring and support to ensure a high rate of retention, and the initial labor market analysis.

Mastracci, Sharon H. "Labor And Service Delivery: Training Programs for Women in Nontraditional Occupations" University of Texas at Austin, 2001. This program was funded by NEW

Wider Opportunities for Women—Our Mission and Work

For more than 40 years, WOW has been a dynamic organization, seeking to improve the economic well-being of women and girls through advocacy, organizing, coalition-building, training, and public awareness activities. WOW has and continues to work throughout the country and in Washington, D.C. fighting for programs and resources to prepare women and girls for jobs that will support their families and them. WOW organized numerous coalitions like the National Women's Workforce Network to improve women and girl's access to education and training, to open doors to non-traditional jobs, and to link women to the work supports they need to improve their economic status. WOW led national and state efforts to create and strengthen a range of policies and programs including those related to employment, job training, vocational education, literacy, and welfare. WOW developed the country's first women's employment resource center women and nurtured similar centers around the U.S. WOW helped define "non-traditional occupations" (NTOs) for women, advocated for federal laws to increase women's participation in NTOs by giving women the skills to earn high wages and economic security and undertook demonstration projects around the country.

Today, WOW leads the Family Economic Self-Sufficiency (FESS) Project in 37 states and the District of Columbia. Over 2,000 community-based organizations demonstrate what it actually costs families to make ends meet, and the importance of good jobs and public supports to help families balance their work and family responsibilities and budgets. WOW's Elder Economic Security Initiative assists policymakers, advocates, and providers develop programs so seniors may age in place with dignity and economic security. Over 250 local organizations in 9 states are participating in coalitions. By 2011, WOW will have developed EESI organizing projects in 20 states and built a national database of Elder Indexes for all 50 states. Through these projects WOW is helping to change the public dialogue from one of poverty to one of economic security. WOW demonstrates the interconnectedness of issues from child care, reproductive health and welfare policies to tax policies, workforce and economic development. From teen-focused programs like the Connections to Career series to those assessing the economic impact of long-term care for seniors, WOW addresses issues affecting women and their families today—within and across generations.