



Why is Green Good for Women? Fact Sheet *Updated*

The New Green Economy

The emerging green economy is shaping employment opportunities across the country. It is increasing the demand for, and changing the requirements of, existing occupations while generating brand new occupations. Green jobs are diverse, rewarding, and overwhelmingly nontraditional to women.

Women have made great strides in some male-dominated occupations, yet they still represent only a small portion of the workers in green occupations. For example, women represent only 1.7 percent of electricians; 3.7 percent of locomotive engineers and operators; 16 percent of industrial production managers; and 5.5 percent of first-line supervisors/managers of mechanics, installers, and repairers.¹ Workers in these jobs retrofit buildings, design and operate environmentally-friendly transportation technologies, and help produce wind and solar power.

Targeted efforts on the part of policymakers, funders, employers, workforce professionals, training and education providers, and advocates are needed to ensure that women recognize the opportunity presented by green occupations, and are able to fully participate in and benefit from the new green economy.

Seven Reasons for Women to Consider a Green Job

1. *A green job can provide the chance to earn more.*

Many green jobs offer better wages and benefits than 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 percent 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.²

2. *Women can start with any skill level.*

Women with a high school education to those with advanced degrees can find a niche in the green economy. A study focused on green employers in Berkeley, California, for example, found that 86 percent of the green business owners interviewed hired workers who had no previous direct experience. In addition, 94 percent offered on-the-job training to entry-level employees.³ Not every job will put women on a career ladder, but each job can be used as a stepping stone to improve skills and move women toward their next career goal.

3. *Green jobs appeal to workers with a diversity of skills and interests.*

Women with diverse interests and aptitudes ranging from mathematics to mechanics to management can find a rewarding green career. For example, home insulators do hands-on work, while recycling coordinators supervise operations and set collection schedules. Green jobs can be indoors or outdoors. Women need to understand all of the opportunities that are available to them.

4. *There are multiple ways to get started in a green job*

Training for green occupations is offered in a variety of forms, including on-the-job, paid union apprenticeships, programs sponsored by nonprofit organizations, and formal degree programs. For some occupations, such as electricians, workers can begin their training with a high school or vocational school education, and then go on to a community college, trade school, apprenticeship, or certification program.⁴ Other career paths, like engineering, require a bachelor's degree for entry-level positions. Unions offer a good starting point for finding training opportunities. Industry associations are also a source of information on the skills and training required to start work in green occupations.



5. Green job opportunities are available for workers of any age

The pathways into green jobs are for all workers—those just starting out or those in need of a career change. Federal funding—through the U.S. Department of Labor’s (USDOL) Aging Worker Initiative, USDOL’s Green Capacity Building and Pathways Out of Poverty grants, and the U.S. Department of the Interior’s Youth Conservation Corps—is spurring an increase in green jobs training. There are ample opportunities for younger workers to get started and for more seasoned workers to use their skills in new ways.

6. Green jobs can give women greater satisfaction

Research shows that job satisfaction is a key ingredient for success in other areas of life, and that it contributes to a general sense of fulfillment.⁵ In taking a green job, women can have satisfaction knowing that they are contributing to a healthier environment for the present and future generations. Also, green jobs often offer career paths so that women can grow professionally. When women consider a broad range of occupations, including green jobs, they are likely to find closer “occupational fits” with their skills and interests.

7. Green employers are looking to hire

In many areas of the country, green jobs are in demand and future growth is projected. According to the National Governors Association Center for Best Practices, every state is seeing growth in at least one green industry segment.⁶ Projections show expected growth in sectors such as energy conservation,⁷ waste management,⁸ and clean energy.⁹ In addition, despite the economic recession, companies are still looking to develop green technologies and they are identifying a skills shortage as they do so. For example, a review of literature by the National Renewable Energy Laboratory found that the lack of a skilled and well-trained workforce was a barrier to growth in the solar power sector.¹⁰

Role of Workforce Professionals, Training and Education Providers, and Advocates

The Recovery Act and other Federal funding increases have the potential to dramatically expand the green employment and training options for women (and men). With Recovery Act funding, the U.S. Department of Transportation’s Office of Civil Rights has offered competitive grants for on-the-job training and support services that specifically seek to increase the participation of women and minorities in transportation projects.¹¹ The Workforce Investment Act (WIA) and Weatherization Assistance Program job training grants also present opportunities to support women in green jobs.

Even with large investments in green jobs, women’s equitable participation is not guaranteed. An independent study has shown that when the Nontraditional Employment for Women Act and the Women in Apprenticeship and Nontraditional Occupations¹² (WANTO) grant program was implemented, women were 25 percent more likely to hold a nontraditional job, and that years after this policy intervention, women were still more likely to hold these nontraditional jobs.

Strategies for increasing women’s participation included pre-apprenticeship training programs, 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.¹³ Being aware of the opportunities in the green economy and getting in on the ground floor of any initiative is a good thing. Understanding what local and state programs and resources are available will be helpful when trying to connect women to good green jobs. For instance, women’s commissions are making efforts to promote green opportunities for women,¹⁴ and some states, such as Washington State, include women in their green economic strategic framework.¹⁵

With their creativity, energy, and skills, women can become pioneers in the emerging green economy. While not all women will be drawn to these jobs, with the right combination of education and training, plus support to overcome barriers, many will likely seek employment in these sectors and can build successful careers.

To listen to the teleconference that accompanies this fact sheet, and for further information about “A Woman’s Guide to Green Jobs” and other Women’s Bureau initiatives supporting green jobs, including Women and Green Jobs Roundtables and green training projects, please visit the USDOL Women’s Bureau Web site at: <http://www.dol.gov/wb/>.



End Notes

- ¹ Bureau of Labor Statistics, "39. Median Weekly Earnings of Full-Time Wage and Salary Workers by Detailed Occupation and Sex," *Household Data Annual Averages* (2009) <http://www.bls.gov/cps/cpsaat39.pdf>
- ² O*NET. "Summary Report for Job 47-2031.01 – Construction Carpenters." (2009) <http://online.onetcenter.org/link/summary/47-2031.01>
Cited in Jeannette Wicks-Lim, "How the Green Economy Can Promote Equal Opportunities for Women." *Dollars and Sense Magazine*. (July 2, 2009).
- ³ Deborah S. Hildebrand, "Green Collar Jobs Need Blue-Collar Skills, Turn Current Talents and Abilities into a New Life-Long Career," *Suite101.com*, (December 11, 2009) http://agriculture-environmental-careers.suite101.com/article.cfm/greencollar_jobs_need_bluecollar_skills
- ⁴ Wisconsin Women's Council, "Training Requirements for Green Jobs." <http://womenscouncil.wi.gov/docview.asp?docid=18242&locid=2>
- ⁵ E.A. Locke, "The Nature and Causes of Job Satisfaction." In *Handbook of Industrial and Organizational Psychology*. M.D. Dunnette, ed. (Chicago: Rand McNally, 1976), 1297-1349.
- ⁶ National Governors Association. "NGA Center for Best Practices Releases State "Green" Economy Profiles" (September 2009) <http://www.nga.org/portal/site/nga/menuitem.6c9a8a9ebc6ae07eee28aca9501010a0/?vgnextoid=06849fa780504210VgnVCM1000005e00100aRCRD&vgnnextchannel=759b8f2005361010VgnVCM1000001a01010aRCRD>
- ⁷ My Green Education and Career, "Green Certification: A Career as a Certified Energy Auditor." <http://www.mygreeneducation.com/green-certification-a-career-as-a-certified-energy-auditor/>
- ⁸ Erich C. Dierdorff et al., *Greening of the World of Work: Implications for O*NET®-SOC and New and Emerging Occupations*, 29. The U.S. Department of Labor, Employment and Training Administration (February 12, 2009) http://www.onetcenter.org/dl_files/Green.pdf
- ⁹ The PEW Charitable Trusts, *The Clean Energy Economy: Repowering Jobs, Businesses and Investments Across America*, (June 2009) http://www.pewcenteronthestates.org/uploadedFiles/Clean_Economy_Report_Web.pdf
- ¹⁰ R. Margolis and J. Zuboy, "Nontechnical Barriers to Solar Energy Use: Review of Recent Literature," National Renewable Energy Laboratory (September 2006), 7. <http://www.nrel.gov/docs/fy07osti/40116.pdf>
- ¹¹ U.S. Department of Transportation Federal Highway Administration, Office of Civil Rights. <http://www.dotcr.ost.dot.gov/asp/fwp.asp>
- ¹² The WANTO Act of 1992 provided for technical assistance to employers and labor unions in the placement and retention of women in apprenticeships and nontraditional occupations. Such programs have assisted many women in securing nontraditional occupations.
- ¹³ Sharon H. Mastracci, "Labor and Service Delivery: Training Programs for Women in Nontraditional Occupations." University of Texas at Austin, (2001).
- ¹⁴ Broome County Women's Commission, "Green Jobs for Women" http://buncombewomen.org/BCWC_GreenJobs_Brochure09.pdf
- ¹⁵ Community, Trade, & Economic Development, "Washington State's Green Economy: A Strategic Framework" (January 2009). http://www.ecy.wa.gov/climatechange/greeneconomy_framework.htm, and, Mina Yoo and Michael Verchot, "Minority- and Women-owned Businesses in Washington's Green Economy," Appendix B, Foster School of Business (December 2008) http://www.ecy.wa.gov/climatechange/CTEDdocs/GreenEconomy_AppendixB_Minorities.pdf



Additional Resources

The list below provides additional related resources. The list is not exhaustive, and inclusion on this list does not represent an endorsement of any institution or program. Web links can change, further Internet searches may be necessary to find the latest information.

Green Economy Opportunities

Government Resources

- O*NET Resource Center. "The Green Economy." For the National Center for O*NET Development's research on the green economy, read *Greening of the World of Work: Implications for O*NET-SOC and New and Emerging Occupations*.
<http://www.onetcenter.org/reports/Green.html>
- U.S. Bureau of Labor Statistics. *Occupational Outlook Handbook, 2008-09 Edition*. Source of career information that is revised every two years.
<http://www.bls.gov/OCO/>
- Workforce3One.org. The Green Jobs Community of Practice (CoP) serves as a platform for workforce professionals and green job thought leaders to discuss and share promising practices to create partnerships for Green Job Workforce Solutions and leverage Recovery Act investments.
<http://greenjobs.workforce3one.org/page/home>

Women's Progress in the Green Economy

Government Resources

- U.S. Bureau of Labor Statistics, "Highlights of Women's Earnings in 2008," Report 1017 (July 2009)
<http://www.bls.gov/cps/cpswom2008.pdf>

Non-Government Resources

- Apollo Alliance. Coalition of diverse partners seeking to encourage growth of the green economy.
<http://apolloalliance.org/>
- Wider Opportunities for Women, "Women and Nontraditional Work Fact Sheet," (2005)
<http://www.wowonline.org/pdf/womennontradsheet2005.pdf>
- Women's Economic Security Campaign, in conjunction with Wider Opportunities for Women, *Creating Opportunity for Low-Income Women in the Green Economy*.
<http://www.womensfundingnetwork.org/sites/wfnet.org/files/WESC/WESCGreenEconFINAL.pdf>

Industry Web Sites and Reports

Non-Government Resources

- Green Economy Post. This site provides visitors with green career information, tools, and other resources including stories, case studies, news, interviews, and a blog. <http://greeneconomypost.com/>
- STEM Caucus Steering Committee. The Science, Technology, Engineering and Mathematics (STEM) ED Caucus seeks to strengthen STEM education at all levels (K-12, higher education, and workforce) by providing a forum for Congress and the science, education and business communities to discuss challenges, and solutions related to STEM education.
<http://www.stemedcaucus.org/Default.aspx>
- Mindy Feldbaum and Hollyce States, *Going Green: The Vital Role of Community Colleges in Building a Sustainable Future and Green Workforce*, National Council for Workforce Education and the Academy for Educational Development. <http://www.ncwe.org/wp-content/uploads/2007/11/GoingGreensmaller.pdf>
- Blue Green Alliance. Information about the national and state-level efforts of this partnership, started by the United Steel Workers and the Sierra Club, including training programs. <http://www.bluegreenalliance.org/>
- Oregon Tradeswomen, Inc. Information for and about tradeswomen.
<http://www.tradeswomen.net/newsinfo.html#article%2011>

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