WHY GREEN IS YOUR COLOR

A Woman's Guide to a Sustainable Career





WHY IS GREEN GOOD FOR WOMEN?

GREEN OCCUPATIONS

EDUCATING YOURSELF FOR A GREEN CAREER

FINDING YOUR GREEN JOB

GREEN Entrepreneurship

Women Succeeding in Green Jobs

OVERCOMING Challenges on Your Career Path

> PLANNING YOUR Green Career







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This document identifies numerous private sector entities and website resources for informational purposes. The inclusion of such references should not be construed as an official endorsement by the Department of Labor or the Women's Bureau of the identified entities, their products, or their services.

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Hilda L. Solis Secretary of Labor



Dear Friends:

Jobs in the clean energy economy are a key driver for America's economic recovery and its sustained economic stability. The greening of our economy will continue to bring significant changes to the American workplace and will require workers to acquire new and different skills.

As Secretary of Labor, my vision for the Department of Labor is "Good Jobs for Everyone." Green jobs are good jobs, available to all Americans. Fostering the growth of the clean energy economy will help protect our environment, ensure the U.S. remains competitive in the global economy, and offer great opportunities for the nation's working families.

At the Department of Labor we are retraining dislocated workers and providing the training necessary to prepare workers for the 21st century workplace. That training is for such green occupations as wind and solar power technicians, along with a range of other exciting work opportunities. By providing the preparation needed to succeed in the emerging clean energy economy, we are paving a pathway out of poverty; strengthening urban and rural communities; rebuilding a strong middle class; and protecting the health of our citizens and planet.

To mark Earth Day 2009, I hosted a discussion on Women and Green Jobs with Nancy Sutley, Chair of the White House Council on Environmental Quality. For the first time at the Department of Labor, more than 35 women leaders from labor, business, academia, government, and nonprofit sectors around the country shared how they are shaping our nation's green economic future.

In our discussion, it became clear that American workers and employers must lead this green revolution to win the future. To do so, they need to understand what green jobs are, how to educate themselves for a green career, and how to find a green job. We are working hard to ensure that women have access to these high-paying, high-demand jobs so that they can advance their careers and achieve economic security for themselves and their families.

To help me carry out my vision of Good Jobs for Everyone, the Women's Bureau is taking a leading role in promoting the entry of women into green jobs. I hope you, as a worker or a workforce development professional, will find this guide a useful tool in building a path to the jobs of the future.

Hilda L. Solis



Sara Manzano-Díaz Director of the Women's Bureau U.S. Department of Labor



Dear Friends:

In 1920, just two months before women gained the right to vote, Congress created the Women's Bureau — an agency charged with safeguarding the interests of working women and advocating for their equality and economic security. After 90 years, the Women's Bureau continues to advance its mission, thus our anniversary theme: "90 Years: Still Working."

Today, the vision of the Women's Bureau is to empower all working women to achieve economic security by preparing them for higher-paying jobs, ensuring fair compensation, promoting workplace flexibility, and helping women veterans who are experiencing homelessness reintegrate into the workforce.

The emerging clean energy economy is shaping employment opportunities across the country. The growing commitment to sustainability has increased the demand for green products and services, and created a variety of new occupations and career paths. The resulting increased demand for workers offers exciting opportunities for women because jobs in the clean energy economy generally offer higher wages and better benefits than the types of jobs in which women are now clustered.

Using Secretary Solis' Earth Day 2009 national roundtable as a model, the Women's Bureau hosted 30 "Women and Green Jobs" roundtables around the country from September to December 2009. According to participants, a lack of awareness or information about green jobs is the key challenge women face to entering these careers.

In response, the Women's Bureau commissioned *Why Green Is Your Color: A Woman's Guide to a Sustainable Career* to give women the information and resources they need to succeed in the developing green economy. The guide will provide women workers and workforce development professionals with information on the benefits of green jobs for women; the range of in-demand and emerging green jobs; education and training opportunities; finding a green job; green entrepreneurship; women succeeding in green jobs; overcoming challenges; and planning a green career. The Women's Bureau will continue to work to ensure that women are key participants in and beneficiaries of the growth of the green economy in the coming decades.

I want to thank the Women's Bureau staff for their significant contributions to this project's success.

Sara Manzano-Díaz

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Welcome to Why Green Is Your Color:

A Woman's Guide to a Sustainable Career!

Since 1920, the Women's Bureau of the U.S. Department of Labor has been conducting research and developing policies and standards to safeguard the interests of working women; advocating for equality and economic security for women and their families; and promoting quality work environments. In support of Secretary of Labor Hilda L. Solis' vision of "Good Jobs for Everyone," the Women's Bureau is working to ensure that women are key participants in the growth of the green economy in the coming decades.

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These are challenging times for many women seeking stable jobs with wages and benefits that will support a family. These are also times of economic opportunity for women, especially in green industries. As Secretary Solis has emphasized, green jobs are the jobs of the future and will play an important role in our economic recovery:

As I travel across the country, I meet many business people who are creating new green technology enterprises or updating outmoded companies to 21st century innovation centers. And it's not just about doing good. These companies do well. They are creating green jobs today because that is where the future is, and they are looking to stay competitive in the global economy.

I've traveled from Los Angeles and Tucson to New York and Miami and 45 cities and towns in between. I've met employers, community organizers, elected officials, students, educators, and activists. And I've seen, heard, and felt their hope and optimism. I've been to a factory that used to make car windshields in Michigan. Now it makes solar panels. I've been to another in Ohio where the workers literally turn remnants of old homes into beautiful, modern furniture. I've met workers who have re-invented themselves for 21st century jobs. That is the face of the future.²

Good green jobs help workers and their families. They increase incomes, narrow the wage gap, allow workplace flexibility, and are safe, secure, sustainable, and innovative.³ They enable people with different backgrounds and skills to build career paths and achieve economic self-sufficiency.

"Green jobs can help women increase their income and we must make sure that women are adequately represented in the ranks of workers in green jobs."

— Women's Bureau Director Sara Manzano-Díaz

WHAT ARE GREEN JOBS?

Green jobs can be broadly defined as jobs that restore, protect, or conserve the natural environment. Green jobs are found across a range of industries and occupations. Examples of green jobs include renewable energy engineers and technicians, <u>weatherization</u> contractors, green landscapers, recycling and waste management workers, environmental chemists, hazardous material removal workers, conservation policy analysts, and designers of new green technologies and products.

The U.S. Department of Labor's Bureau of Labor Statistics has finalized a definition of green jobs for use in *measuring* green goods and services jobs.⁴

The *green economy* encompasses economic activity related to reducing the use of fossil fuels, decreasing pollution and <u>greenhouse gas emissions</u>, increasing the efficiency of energy usage, recycling materials, and developing and adopting renewable sources of energy.⁵

MYTH: Green jobs are all in construction or the building trades.

FACT: Green jobs do exist in the building trades and in construction, but there are many other occupations that support the green economy. For instance, there are manufacturers that produce earth-friendly products, designers of energy-efficient technologies, and investors that trade carbon credits.⁷

New jobs are appearing and many old jobs are changing in response to the green economy. The "greening of occupations" refers to the extent to which green economy activities and technologies increase the demand for existing occupations, shape the work and worker requirements needed for performance of the occupation, or generate unique work and worker requirements.⁸ There are three categories of green occupations as outlined by the National Center for O*NET Development:⁹

- Green Increased Demand Occupations. These are occupations that already existed prior to the green economy but now are more in demand. There are no significant changes in the work and worker requirements. Examples include electricians, logger supervisors, wildlife biologists, and chemical engineers.
- Green Enhanced Skills Occupations. These are occupations that already existed prior to the green economy but have undergone significant changes in work and worker requirements to include new tasks, skills, knowledge, and credentials. Demand for workers may or may not have increased. Examples include construction managers, heating and air conditioning mechanics, transportation managers, and environmental engineers.
- Green New and Emerging Occupations. These are occupations with unique work and worker requirements relating to the green economy. They may be entirely new or "born" from an existing occupation. Examples include biomass plant engineers, climate change analysts, geothermal technicians, and logistics managers.

Jobs in these occupations require different kinds of training and work experience. In some cases, women may be certified for an occupation by taking a single course/exam, and/or on-the-job training may be available through an employer, apprenticeship, or internship. In other cases, the path to a green occupation may require an associate degree, bachelor's degree, or more.

GREEN AREAS OF OPPORTUNITY

There are 12 key sectors of the green economy:⁶

- 1. Agriculture and forestry
- 2. Energy and carbon capture
- 3. Energy efficiency
- 4. Energy trading
- 5. Environmental protection
- 6. Governmental and regulatory administration
- 7. Green construction
- 8. Manufacturing
- 9. Recycling and waste reduction
- 10. Renewable energy generation
- 11. Research, design, and consulting services
- 12. Transportation

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THE GROWING GREEN ECONOMY

Business practices, consumer choices, and the world's available resources are changing, and with these changes, the demand for workers in green industries is expected to increase.

Experts predicted world energy consumption will grow by 49 percent from 2007 to 2035.¹⁰ In the U.S., increasing demand for electricity to support new technology means a greater demand for methods to efficiently produce and transport energy.¹¹

Leading scientists are warning that everyone must find new ways to reduce carbon emissions worldwide in the face of global warming and climate change.¹² This effort will require a transition from fossil fuels to renewable energy sources, including wind and solar energy. Being good environmental caretakers means looking for more ways to reduce waste, reuse materials when possible, and stop practices that have negative effects on the environment.

Environmental issues are of growing importance to businesses across America. Some are already adopting a "triple bottom line" philosophy that emphasizes economic, ecological, and social values. Many consumers are eager to do business with enterprises that are responsible in how they treat their workers, customers, and the environment.

The green economy rewards innovation, creativity, and entrepreneurism. New ways of thinking about everyday products, processes, and services make for great opportunities for women to not only find new jobs, but also turn their ideas into businesses and create jobs for others.

As the green economy grows, our country needs workers for a variety of green jobs. The number and types of green jobs are growing rapidly.

With the publication of this guide, the Women's Bureau aims to help women like you prepare for good jobs in green industries.

HOW TO USE THIS GUIDE

This guide will provide an overview of the types of green jobs that are available and the skills needed to get them. It will show you how to identify training opportunities, give you suggestions about how to pay for training, and describe how to start your own green business. The guide will point out common barriers to career advancement and offer tips to overcoming them, and showcase the success stories of women who have already joined the green economy.

There are special features throughout the guide to help you separate fact from fiction about women and green jobs and to give you perspectives from women working in green industries. A glossary defines terms that might be unfamiliar to you. There are also worksheets to help you plan your own green career.

You don't need to read this guide from cover to cover. It has been designed as an easy-to-use reference. It is divided into nine chapters, and the parts you use will vary depending on your interests, your needs, and your level of experience.

At the end of each chapter, you'll find many resources available online or in print that can help you learn more about a particular topic. You may find additional sources of information in your state or local community. More information about green jobs and the green economy becomes available every day, so look often for new articles, reports, and websites.

ADDITONAL RESOURCES

You may find these resources helpful in planning for a green career. Web links can change, so you may need to do Internet searches to find the latest information.

GOVERNMENT RESOURCES

- U.S. Department of Labor (DOL). DOL has information about green jobs and green training grants through its Green Jobs Initiative. http://www.dol.gov/dol/green
 - Bureau of Labor Statistics (BLS). BLS provides green jobs information. http://www.bls.gov/green and http://www.bls.gov/green/wind_energy/home.htm
 - Employment and Training Administration, Office of Apprenticeship (OA). OA published the report
 The Greening of Registered Apprenticeship, an environmental scan of the impact of recent policies and
 investments supporting "green jobs" on current and potential Registered Apprenticeship and other
 labor-management training programs. http://www.doleta.gov/OA/pdf/Greening_Apprenticeship.pdf
 - Green Community of Practice (CoP). Sponsored by DOL, Green CoP provides current information related to the green economy as well as job search resources and information. Requires free registration. http://greenjobs.workforce3one.org
 - mySkills myFuture. This is an electronic tool developed by DOL's Employment and Training
 Administration that enables previously-employed job seekers to match their occupational skills and
 experiences with the skills needed in other occupations. http://www.myskillsmyfuture.org
 - Occupational Information Network (O*NET). O*NET is a comprehensive, user-friendly career exploration tool created for DOL's Employment and Training Administration with a special section on the green economy. http://onetcenter.org/green.html
 - Women's Bureau (WB). WB provides information and tools for women seeking jobs and employment information. http://www.dol.gov/wb
- U.S. Energy Information Administration (EIA). EIA provides extensive information about energy use in the United States. http://tonto.eia.doe.gov/energyexplained/index.cfm?page=about_energy_efficiency
- U.S. Environmental Protection Agency (EPA). EPA provides information on protecting the environment and how you can help. http://www.epa.gov/epahome/workplac.htm
- The White House, Office of the Vice President, Middle Class Task Force. The task force produced a report titled Green Jobs: A Pathway to a Strong Middle Class (February 2009).
 http://www.whitehouse.gov/assets/documents/mctf_one_staff_report_final.pdf

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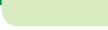
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Non-Government Resources

- National Labor College (NLC). NLC's *Green Labor Journal* is a monthly publication providing updates on green jobs policy, work concerns, and other relevant topics. http://www.greenlaborjournal.org
- Wider Opportunities for Women (WOW). WOW's fact sheet "Women and the Green Economy"
 describes how the green economy impacts women's employment, especially nontraditional
 occupations. http://www.wowonline.org/publicpolicy/documents/GreenJobsFactSheetJuly2009.pdf

This list is not exhaustive and inclusion on this list does not represent an endorsement of any institution or program. While all efforts are made to ensure that hyperlinks are working and the information contained at the referenced websites is useful, the authors do not endorse, take responsibility for, or exercise control over the websites or organizations, nor do they vouch for the accuracy or accessibility of the information contained on these sites. The authors also cannot authorize the use of copyrighted materials contained in these sites. Users must request such authorization from the sponsor of the website.

End Notes

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²Azcentral.com. "Live Talk: Hilda L. Solis, Secretary of Labor" (2010 Sept.). https://www.azcentral.com/news/aztalk/forum/articles/live-talk-hilda-solis.html

³Solis, "Testimony."

⁴Bureau of Labor Statistics. "Overview of the BLS Green Jobs Initiative." U.S. Department of Labor. http://www.bls.gov/green/home.htm#overview

⁵Ibid.

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¹²Goodstein, Eban, Frank Ackerman, and Kristen Sheeran. "We Can Afford to Save the Planet." *Washington Post* (2009 Oct.). http://washingtonpost.com/wp-dyn/content/article/2009/10/22/AR2009102204193.html

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The growing green economy is creating new opportunities across the country, industries, and educational levels. Green companies need women who can design, build, install, retrofit, lead, and much more. Many green jobs have high wages and good benefits. Why not explore a rewarding career path that will provide family-supporting wages and benefits such as health care and paid leave?

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SEVEN REASONS FOR A GREEN JOB

Here are seven reasons green jobs are good for women:

REASON 1: A GREEN JOB CAN PROVIDE THE CHANCE TO EARN MORE.

Many of the jobs that are considered green are jobs that women haven't traditionally held. As a result, women miss out on earning good wages and benefits. For instance, green jobs in environmental engineering pay a median wage of \$37.04 an hour or \$77,040 a year. The position of environmental engineer was projected to be among the fastest-growing occupations from 2008 to 2018, with an expected 31 percent job growth rate.

Construction carpenter is a green occupation projected to have 325,400 job openings from 2008-2018. Carpenters, 98 percent of whom are men, earned a median wage of \$18.98 an hour in 2009. In contrast, preschool teachers, 98 percent of whom are women, earned \$11.80 an hour. With these wages, a preschool teacher would have to work 24 more hours per week to earn the same amount as a carpenter.

Women workers continue to be concentrated in traditionally female occupations. In 2009, women held 97 percent of all secretary and administrative assistant positions; 82 percent of all elementary and middle school teaching positions; 88 percent of all nursing, psychiatric, and home health aide positions; and 74 percent of the nation's cashier positions.²⁰ Other opportunities are open to women; it's up to you to take advantage of them.

REASON 2: YOU CAN START WITH ANY SKILL LEVEL AND MOVE ALONG A CAREER PATH.

Green jobs provide opportunities to advance from low-skill, entry-level positions to high-skill, higher-paying jobs. For example, an entry-level worker might gain hands-on experience by assisting a more experienced worker while working toward a certificate. After a few years of work and further training, she can advance to both higher-level responsibilities and higher pay. This path is an opportunity for a woman who hasn't attended college.

Not every job will put you on a career path, but each job you have can be used as a stepping stone to improve your skills and move you toward your ultimate career goal. The skills you acquire in an entry-level job can advance your career. You will acquire stackable credentials and portable skills.

REASON 3: GREEN JOBS APPEAL TO WORKERS WITH DIVERSE SKILLS AND INTERESTS.

No matter what your interests are, there is probably a green job out there for you. A green job can mean working as a training and development specialist, urban planner, green business owner, agricultural technician, or landscape architect. Here are a few more examples of green jobs for a variety of interests:

- Recycling coordinators supervise recycling programs and facility staff and volunteers. They also set collection schedules, track materials, give presentations, and develop budgets.²¹
- Home insulators install materials to prevent energy loss, reduce noise, and ensure safety. They do this by covering pipes and insulating walls.²²
- Energy auditors assess the energy efficiency of houses or buildings by running tests and recommend certain repairs or changes to lower energy costs.²³

REASON 4: GREEN JOBS CAN GIVE YOU GREATER SATISFACTION.

When you take a green job, you become part of an important effort to protect and restore our environment. Whether you help reduce energy usage, greenhouse gas emissions, or water consumption; conserve natural resources; or minimize waste and pollution, you can take pride in knowing that your work is contributing to the health and sustainability of life on our planet.

REASON 5: GREEN JOB OPPORTUNITIES ARE AVAILABLE FOR WORKERS OF ANY AGE.

Green jobs are for those just starting out and those in need or want of a career change. Federal funding is currently spurring an increase in green jobs training programs that offer opportunities for younger workers to get started and for more seasoned workers to use their skills in new ways.

REASON 6: GREEN EMPLOYERS ARE LOOKING TO HIRE.

When selecting a career, it is important to look for opportunities in fields where employers are currently seeking — or will be seeking — new employees. One of the best things you can do for yourself is to track down national and local information about where job growth is occurring. For example, according to a recent survey by the Association of Energy Engineers, a nonprofit group that supports workers in energy and related fields, there are too few qualified workers to fill the jobs in the energy efficiency and renewable energy fields, and this deficit is holding up growth in green industries.²⁴

The expected national job prospects of hundreds of occupations in the United States can be found in the *Occupational Outlook Handbook* (http://www.bls.gov/oco), a publication of the U.S. Department of Labor's Bureau of Labor Statistics (BLS). For instance, BLS reported that the demand for agricultural and food scientists is expected to grow at a rate of 16 percent (4,800 additional jobs) between 2008 and 2018;²⁵ and the demand for environmental science and protection technicians is expected to grow by 29 percent (or 10,100 jobs) between 2008 and 2018.²⁶ BLS also has green jobs career information at http://www.bls.gov/green.

MYTH: Women aren't strong enough for physically demanding green jobs.

FACT: Many women can handle the physical demands equally as well as their male counterparts. Many traditional women's jobs, such as nursing and waitressing, are just as physically demanding as some nontraditional jobs. Other green jobs are less physically demanding than housework. The strength requirements for jobs in sectors such as transportation and construction are often exaggerated. There is no reason for most women to avoid employment in those well-paying occupations.

MANY WOMEN PURSUE A SECOND CAREER IN THE GREEN ECONOMY.

Rebecca Lundberg was working as a school teacher when she started exploring the field of solar energy installation. "I didn't have any background with the hands-on trade at all," she says. Rebecca took a course on photovoltaic design and installation and then approached state officials to find out what certifications would be required for starting a solar energy installation business. "They asked me to describe what I wanted to do, and they said, 'Oh, you're going to be on a roof? That means you're a roofer. And you're going to be doing electric panels; therefore, you're an electrician. And if you're a roofer and an electrician, [then] you're a general contractor." After passing the certification exam to become a general contractor, Rebecca and her partner obtained their first job experience by installing solar panels on their own house. Next, they made presentations about solar energy to local homeowners, which brought them their first clients. Today Rebecca is chief executive officer of Powerfully Green, a full-service solar installation business that serves the Twin Cities area of Minnesota.

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REASON 7: THERE ARE MULTIPLE WAYS TO GET STARTED IN A GREEN JOB.

There are a variety of ways to gain the initial skills you need to be part of the green economy. You don't have to go to college to get a green job, but a college degree can increase your job opportunities and earning potential, and is necessary for some green jobs.

Green job training ranges from on-the-job work experience to paid apprenticeship programs to certification programs sponsored by independent, professional organizations. Electricians, for example, can begin their training with a high school or <u>vocational education</u>, and then go on to a community college, trade school, apprenticeship, or certification program.²⁷

WOMEN FORGING NEW PATHS

Over the past several decades, women have been entering nontraditional jobs and experiencing the exciting career opportunities and greater earning potential these jobs offer. Yet many occupations in green industries remain relatively untapped by women looking to earn a family-supporting wage. Though these occupations remain nontraditional, don't let the unfamiliar stop you! Green jobs offer a broad set of opportunities from which to choose. Explore your options and choose a green career that can provide the future you want.

ADDITIONAL RESOURCES

You may find these resources helpful in planning for a green career. Web links can change, so you may need to do Internet searches to find the latest information.

GOVERNMENT RESOURCES

- U.S. Department of Labor (DOL). DOL has information about green jobs and green training grants through its Green Jobs Initiative. http://www.dol.gov/dol/green
 - Bureau of Labor Statistics (BLS). BLS provides green jobs information. http://www.bls.gov/green and www.bls.gov/green/wind_energy
 - Employment and Training Administration produced a report titled *The Greening of Registered Apprenticeship* (June 2009).
 http://www.doleta.gov/OA/pdf/Greening_Apprenticeship.pdf
 - Occupational Information Network (O*NET). O*NET is a comprehensive, user-friendly career exploration tool created for DOL's Employment and Training Administration with a special section on the green economy. http://onetcenter.org/green.html
 - Senior Community Service Employment Program (SCSEP). SCSEP is a community service program and work-based training program sponsored by DOL's Employment and Training Administration for low-income persons age 55 or older. http://www.doleta.gov/seniors/html_docs/AboutSCSEP.cfm

Non-Government Resources

- Wider Opportunities for Women (WOW). WOW's fact sheet "Women and Nontraditional Work" defines nontraditional jobs, illustrates women's progress, and discusses why women would want a nontraditional job. http://www.wowonline.org/publicpolicy/documents/womennontradsheet2005.pdf
- Women's Economic Security Campaign in conjunction with Wider Opportunities for Women (WOW). The campaign issued a report *Creating Opportunity for Low-Income Women in the Green Economy* that highlights green job opportunities, identifies barriers to women in accessing those jobs, and provides recommendations. http://www.womensfundingnetwork.org/sites/wfnet.org/files/WESC/WESCGreenEconFINAL.pdf

This list is not exhaustive and inclusion on this list does not represent an endorsement of any institution or program. While all efforts are made to ensure that hyperlinks are working and the information contained at the referenced websites is useful, the authors do not endorse, take responsibility for, or exercise control over the websites or organizations, nor do they vouch for the accuracy or accessibility of the information contained on these sites. The authors also cannot authorize the use of copyrighted materials contained in these sites. Users must request such authorization from the sponsor of the website.

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²¹ America's Career InfoNet. "Recycling Coordinators: Occupation Specific Tasks" in" First-Line Supervisors of Helpers, Laborers, and Material Movers, Hand: Occupational Profile." http://www.careerinfonet.org/occ_rep.asp?nodeid=2&optstatus=000110111&next=occ_rep&jobfam=53&soccode=531021&stfips=&level=&id=1&ES=Y&EST=recycling+coordinators#task53-1021.01.

²² Careers.org. "Occupational Profile for Insulation Workers, Floor, Ceiling, and Wall." http://occupations.careers.org/47-2131.00/insulation-workers-floor-ceiling-and-wall

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GREEN OCCUPATIONS: A LOOK AT WHAT'S OUT THERE

This chapter provides a sampling of the types of green careers in Green Increased Demand, Green Enhanced Skills, and Green New and Emerging occupations. Bright Outlook occupations are noted. This sampling is provided so that you can get a feel for the variations in skills needed, educational requirements, workplaces, pay scales, and demand. Two occupations in each category that show the most job growth right now (or have a Bright Outlook) are profiled.

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Chapter 1, "Introduction to the Guide," describes the most common trait of green jobs as contributing to preserving or restoring the environment. It also describes the greening of occupations and three categories of green occupations: "Green Increased Demand Occupations," "Green Enhanced Skills Occupations," and "Green New and Emerging Occupations." This categorization of green occupations was developed by the National Center for O*NET Development for the U.S. Department of Labor's Employment and Training Administration.²⁸

The National Center for O*NET Development also designated some green occupations as "Bright Outlook" occupations. Bright Outlook occupations are expected to grow at a rapid rate from 2008-2018; expected to have 100,000 or more job openings from 2008-2018; or are new and emerging occupations in high-growth industries.²⁹

There are other green jobs that may align with your interests and skills or offer better prospects where you live, or want to live, since not all green jobs exist in every area of the country. To learn more about finding a green job, the education needed for your chosen career, or about real women succeeding in their green careers, please see the following chapters of the guide: Chapter 4, "Educating Yourself for a Green Career;" Chapter 5, "Finding Your Green Job;" and Chapter 7, "Women Succeeding in Green Jobs."

| OOKING FOR MORE INFORMATION ON GREEN OCCUPATIONS?

There are many local, state, and national resources available to you. Check out these resources either online or in person:

- 1. Career advisors at community colleges or universities are a useful resource for obtaining specific career information, conducting interest assessments, and/or coordinating job shadowing opportunities.
- **2. Industry association** websites provide an overview of an industry as well as statistics, job openings, and publications relevant to the field.
- **3. Labor unions** across a broad range of industries are working to train members for green jobs. If you are a union member, ask what green training opportunities are available to you.
- **4.** One-Stop Career Centers offer career exploration assistance. Depending on your circumstances, they can help you with creating a resume, planning your job search, assessing your skills, and/or by connecting you with training.
- **5. People working in green industries** can give you a firsthand account of what it's like to work in a particular green job. Contact your training provider or college, or a green company in your area, to see if you can arrange an informational meeting.
- **6. Research reports** on particular industries or occupations and employment trends can be found by doing an online search or by visiting your local library.
- 7. **Training providers** in your area will be able to provide you with detailed information about green training programs and the types of jobs available to you, along with the training they provide.

A SELECTION OF GREEN OCCUPATION PROFILES

RENEWABLE ENERGY

WIND TURBINE SERVICE TECHNICIAN

Within the renewable energy sector, wind turbine service technician is a Green New and Emerging occupation as well as a Bright Outlook occupation.

Job Duties. Wind turbine service technicians perform regular maintenance and repairs of wind turbines. Wind turbine service technicians may also be responsible for administration of the site, including making sure there is a proper inventory of parts available for needed repairs and ordering spare parts as needed.³⁰

Skills and Credentials. There is no set path to becoming a wind turbine service technician. Currently, many technicians learn the trade on the job or through apprenticeship programs. However, it is helpful to have mechanical skills from experience in a related industry. As more vocational training programs are developed and training is standardized, technicians will be expected to complete a certificate program at a community college or technical school or earn a degree in wind turbine maintenance.³¹

Working Conditions. Technicians must be comfortable with heights, able to work in small spaces, and physically fit. Technicians may be expected to climb several towers wearing load-bearing harnesses during the course of a typical workday. In addition, technicians work with handheld power tools and electrical measuring instruments. Many wind farms are located away from populated areas, so technicians must be prepared to travel frequently or to live in remote locations for extended periods.³²

Wages. BLS does not currently have earnings data for wind turbine service technicians. Data should be available in several years. According to industry sources, however, wind turbine service technicians usually have starting salaries between \$35,000 and \$40,000.³³

Career Opportunities. As a technician gains more experience, she may become responsible for the maintenance of more wind turbines or take on additional administrative responsibilities.

Projected Growth. The overall demand for the occupational category of Installation, Maintenance, and Repair Workers, All Other (which includes wind turbine service technicians) is expected to grow by nine percent between 2008 and 2018.³⁴ Although there are <u>wind energy</u> jobs in almost every state, wind farms are frequently located in the Midwest, Southwest, and Northeast regions of the United States.³⁵

SOLAR PHOTOVOLTAIC INSTALLER

The solar photovoltaic (PV) installer, also called a solar panel installer, is another Green New and Emerging occupation in the renewable energy sector. This Bright Outlook occupation has experienced significant growth over the past several years. It requires more specialized training and experience than the wind turbine service technician.

Job Duties. Solar photovoltaic installers assemble, install, or maintain solar panel systems on roofs or other structures. Duties may also include measuring, cutting, assembling, and bolting structural framing and solar modules. In addition, installers may perform minor electrical work such as current checks.

Skills and Credentials. Most solar installers have at least a high school diploma and experience in mechanical or electrical installation.³⁶ Solar installation certification programs can be completed through employers, vendors, or independent agencies. Workers with construction backgrounds are often well-suited for the work, and roofing experience is particularly valuable.³⁷ Solar photovoltaic installers need mechanical skills and must be able to work with the power tools and hand tools used to construct and fasten panels.³⁸ Electrical knowledge and math skills are important, as are good problem-solving abilities. Attention to detail is critical,

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because the installation process requires workers to closely follow diagrams and instructions. Installers must also be capable of heavy lifting, as a typical solar panel weighs between 30 and 40 pounds.³⁹

Working Conditions. Installation work is mostly done on high spaces, such as roofs and sides of buildings. Therefore, installers must be comfortable with heights and able to work on uneven surfaces. In addition, installers must be familiar with the proper use of eye, ear, and fall protection as well as electrical safety.

Wages. According to BLS, the median annual wage for the occupational category of Construction and Related Workers, All Other (which includes solar photovoltaic installers) was \$33,980 in 2009.⁴⁰

Career Opportunities. Some workers concentrate primarily on installing solar panels. Other workers may also perform other tasks, such as sales, planning, or wiring. As an installer gains experience, she may advance to become a lead installer, system designer, or another related position.

Projected Growth. The overall demand for Construction and Related Workers, All Other is expected to grow by 11 percent between 2008 and 2018.⁴¹ Of the estimated 70,000 solar photovoltaic installers in the country, half are employed in the state of California.⁴² New Jersey, Florida, and Colorado are also top states for solar energy production.⁴³

Kelley Benyo, a master electrician in Minnesota, said that her career path evolved over time. "I initially went into the orthopedic medicine field after high school. I ... developed a severe allergy where I couldn't work in the operating room. ... I had bought my own home and did all of the renovations on my own. I got interested in doing the electrical work. I got my degree in electrical installation and maintenance, and then I joined a union apprenticeship program. Kelley now has 13 years of experience, was the first woman in her state to become a North American Board of Certified Energy Practitioners certified solar PV installer, owns her own company, EcoVision Electric, and teaches courses in photovoltaic solar design, installation, and maintenance for the Minneapolis Electrical Joint Apprenticeship Training Committee and St. Paul College.

ENVIRONMENTAL PROTECTION

RECYCLING COORDINATOR

Within the environmental protection sector, recycling coordinator is a Green New and Emerging occupation as well as a Bright Outlook occupation.

Job Duties. A recycling coordinator's main responsibility is to supervise curbside and drop-off recycling programs for municipal governments or private firms. She may also be responsible for educating the general public or company employees on the importance of recycling.

Skills and Credentials. The education required for this occupation typically ranges from completion of high school to some postsecondary education. For example, an associate degree from a community college or technical school in public administration, environmental science, or a related field is appropriate. Recycling coordinators must be able to interpret and follow technical procedures and governmental regulations; have knowledge of recycling and source reduction practices; and have good communication skills, as they may frequently interact with the public.

Working Conditions. Recycling coordinators spend most of their time in offices. However, they may occasionally be required to work outdoors.

Wages. BLS reports that the median annual wage for the occupational category of First-Line Supervisors/ Managers of Helpers, Laborers, and Material Movers, Hand (which includes recycling coordinators) was \$42,940 in 2009.⁴⁴

Career Opportunities. Opportunities for advancement will vary by educational level and employer. However, after gaining some experience, a recycling coordinator may move to a specialist position, taking on additional responsibilities such as contract, grant, and budget management.

Projected Growth. The overall demand for First-Line Supervisors/Managers of Helpers, Laborers, and Material Movers, Hand is expected to grow by four percent between 2008 and 2018.⁴⁵

ENVIRONMENTAL SCIENTIST

The environmental scientist occupation is a Green Increased Demand and a Bright Outlook occupation. Compared to the recycling coordinator, this occupation requires more education and experience.

Job Duties. Environmental scientists are trained in the natural sciences and use their training to protect the environment by identifying problems and finding solutions that minimize environmental hazards. For example, they analyze measurements or observations of air, food, water, and soil to determine ways to clean and preserve the environment.

Skills and Credentials. A bachelor's degree in any life or physical science is generally sufficient for most entry-level positions. ⁴⁶ Many scientists earn degrees in biology, chemistry, physics, or the geosciences. Some employers may require a master's degree in environmental science or a related natural science. Scientists also need advanced computer skills, including experience with computer modeling, data analysis and integration, digital mapping, remote sensing, and Geographic Information Systems (GIS) technology. ⁴⁷

Working Conditions. Entry-level environmental scientists spend a significant amount of time in the field. More experienced scientists generally spend more time in the office or laboratory. They may work in warm or cold climates, and in all kinds of weather.

Wages. According to BLS, the median annual wage for Environmental Scientists and Specialists, Including Health was \$61,010 in 2009.⁴⁸

Career Opportunities. Many environmental scientists begin their careers as field analysts, research assistants, or technicians in laboratories or offices. As they gain experience, scientists are given more difficult assignments and independence. There are many opportunities for advancement, including promotions to project leader, program manager, or another management or research position.

Projected Growth. The demand for Environmental Scientists and Specialists, Including Health is expected to grow by 28 percent between 2008 and 2018.⁴⁹ According to BLS, in 2009, the most environmental protection workers were employed in California, followed by Texas, Florida, Wisconsin, and Minnesota (depending on the specific professions included).⁵⁰

GREEN RUILDING AND FNERGY FFFICIENCY

WEATHERIZATION INSTALLER AND TECHNICIAN

Within the energy efficiency sector, weatherization installer and technician is a Green New and Emerging as well as a Bright Outlook occupation.

Job Duties. These installers and technicians perform a variety of activities to make homes and buildings more energy-efficient. Duties may include repairing windows; insulating ducts; and performing heating, ventilating, and air-conditioning (HVAC) work. In addition, some installers and technicians may perform energy audits and educate clients on ways to conserve energy in their homes or businesses.

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Skills and Credentials. Weatherization installers and technicians are typically required to have a high school diploma and complete a <u>weatherization</u> training program through a community college, trade school program, or <u>apprenticeship</u> program. Knowledge of basic general construction trade and maintenance principles and practices is a must. Skills related to air sealing, duct-sealing, insulation, energy-efficient lighting, and water improvements are also important.⁵¹

Working Conditions. These positions require heavy lifting; working in small, cramped spaces; or work in dirty or dusty areas. Installers and technicians often use power tools or hand tools and must follow proper safety procedures.

Wages. The median annual wage for the occupational category of Construction and Related Workers, All Other (which includes weatherization installers) was \$33,980 in 2009.⁵²

Career Opportunities. A common career path of an installer and technician is progression to a supervisory role, such as a crew chief, and then to an energy auditing position. Auditors may work in weatherization agencies or independently to conduct energy rating audits based on established standards.

Projected Growth. The overall demand for Construction and Related Workers, All Other is expected to grow by 11 percent between 2008 and 2018.⁵³

LANDSCAPE ARCHITECT

Within the <u>green building</u> sector, landscape architect is a Green Enhanced Skills and Bright Outlook occupation. Unlike weatherization installers and technicians, landscape architects are generally required to complete a bachelor's or master's degree program.

Job Duties. Landscape architects plan and design land areas for projects such as parks or other recreational facilities, airports, highways, hospitals, schools, land subdivisions, and various other commercial, industrial, and residential sites.

Skills and Credentials. A bachelor's or master's degree in landscape architecture is usually necessary for an entry-level position. ⁵⁴ In addition, most states require landscape architects to be <u>licensed</u>. Creative vision, artistic talent, and computer skills are essential for landscape architects. Computer-aided design (CAD) is a tool used frequently in the occupation, as is Geographic Information Systems (GIS) technology. ⁵⁵ In addition, good communication skills are necessary, as landscape architects must present their ideas to clients and other professionals.

Working Conditions. Landscape architects spend most of their time in offices creating plans and designs, preparing models and cost estimates, doing research, or attending meetings with clients.⁵⁶ However, a significant portion of time may be spent at the project site.

Wages. The median annual wage for a landscape architect was \$60,560 in 2009.57

Career Opportunities. Landscape architects can progress to project management positions as they become more experienced. Eventually, they may become associates or partners of a firm. Opportunities also exist for landscape architects to become construction supervisors, land or environmental planners, or landscape consultants.

Projected Growth. BLS estimates that employment of landscape architects is expected to increase by 20 percent from 2008 to 2018.⁵⁸ Employment of landscape architects is concentrated in urban and suburban areas throughout the country.⁵⁹ About 60 percent of all university landscape architect graduates are women.⁶⁰

DOING YOUR OWN RESEARCH

The jobs described in this chapter are a sampling of the many green jobs available in the various green economy sectors. Green jobs are available to workers with different interests, education levels, and skill sets. Researching the types of green jobs and their training requirements can help you identify those occupations that match your skills and interests. You can find information on green occupations by looking online or at printed materials, through conversations with others working in these occupations, and/or by talking with a career advisor about how your current work and education history could translate into a new occupation. Chapter 9, "Planning Your Green Career," has more information on how to begin preparing for a green job.

You can find the occupations in this chapter and other green occupations on O*NET online by following the steps in "Using O*NET" in Chapter 9.

ADDITIONAL RESOURCES

You may find these resources helpful in planning for a green career. Web links can change, so you may need to do Internet searches to find the latest information.

GREEN CAREERS

GOVERNMENT RESOURCES

• Occupational Information Network (O*NET). O*NET is a comprehensive, user-friendly career exploration tool created for DOL's Employment and Training Administration with a special section on the green economy. http://onetcenter.org/green.html

Non-Government Resources

- Green for All. Green for All provides a description of green job opportunities, links to green jobs listings, and resources for green job training. http://www.greenforall.org/resources/green-collar-jobs-resources
- Oregon Tradeswomen, Inc. (OTI). OTI provides short informational videos about lineworkers, plumbers and steamfitters, electricians, and ironworkers at http://www.tradeswomen.net/?page_id=35, and on green builders at http://www.tradeswomen.net/greenbuilders.html.
- University of Michigan, Multicultural Environmental Leadership Development Initiative (MELDI). MELDI provides a searchable database of salary ranges, desired skills, and experience associated with specific job titles in the environmental field. http://meldi.snre.umich.edu/job_description
- Women Employed (WE). WE's Career Coach resource is an easy-to-use online tool that helps you learn about good careers, set a career goal, and make plans to reach it. http://www.womenemployed.org

TECHNICAL SKILLS

GOVERNMENT RESOURCES

• mySkills myFuture. mySkills myFuture is an electronic tool developed by the U.S. Department of Labor (DOL), Employment and Training Administration (ETA), that enables previously-employed job seekers to match their occupational skills and experiences with the skills needed in other occupations. http://www.myskillsmyfuture.org

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• CareerOneStop. CareerOneStop, created for DOL's Employment and Training Administration (ETA), provides an array of online job seeker tools (http://www.careeronestop.org) and allows you to search for a One-Stop Career Center in your area (http://www.servicelocator.org).

This list is not exhaustive and inclusion on this list does not represent an endorsement of any institution or program. While all efforts are made to ensure that hyperlinks are working and the information contained at the referenced websites is useful, the authors do not endorse, take responsibility for, or exercise control over the websites or organizations, nor do they vouch for the accuracy or accessibility of the information contained on these sites. The authors also cannot authorize the use of copyrighted materials contained in these sites. Users must request such authorization from the sponsor of the website.

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EDUCATING YOURSELF FOR A GREEN CAREER

Are you ready to start on a green job path toward a career that will allow you to support yourself and your family? The green economy is growing rapidly and in ways that few would have imagined a decade ago. Wind power has emerged as an important part of our national efforts to develop alternative sources of energy. Electric cars, long on the drawing board, could soon become commonplace. Businesses are constructing eco-friendly offices. Homeowners are demanding houses that use less energy, whether it's through solar panels, energy-efficient furnaces, or better insulation. In response to these ideas and demands, companies are modifying and improving existing green product lines, and expanding their businesses to offer new green products and services.

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Businesses will be hiring for well-paying jobs that didn't exist a few years ago. The industries may vary from region to region, but opportunities currently exist throughout the United States, and others will be created in the not-too-distant future. Anyone considering a green career must be prepared to learn new skills along the way and be ready for the changes that will come. Green careers will evolve in ways that will keep the work interesting and rewarding.

This chapter of the guide will help you position yourself for a green career by providing information and resources on the skills you'll need, where to find training, and how to pay for it.

Structural engineer Roxane Vallo, who works in the construction industry, says Leadership in Energy and Environmental Design (LEED) certification is becoming more and more important for engineers in her field. "Our company [has] just hired someone, mostly because he was LEED certified. As a result of the way the industry is working, people are anticipating that you have someone who is LEED certified now because I think more of the clients want to use it ... I would have to say that your job and your future employment with other companies depend on it."

THE SKILLS YOU NEED

Employers in green industries are looking for a wide range of skills from workers. Those who have the most skills and are best able to adapt them to new needs will be the best positioned to climb the green career ladder.

Employers want employees with skills in two basic areas:

1. 21st **Century Workplace.** There are important 21st century workplace skills that employers need from employees. They want workers who can communicate well, who can juggle more than one assignment, and who can take the initiative to solve problems. These types of abilities are often called "soft" skills. You likely have developed many of these traits and skills over your lifetime, but you may need to work on others. Your success in a green career will be enhanced by developing these skills. The pathway toward success begins with an honest assessment of your skills.

Even if you are just starting your career, chances are that there are instances where you have used soft skills. Perhaps you organized a school fundraiser or coordinated volunteers for a community garden project. You may have coached a soccer team or helped elderly parents with doctor's appointments and finances. Think about how you have used soft skills in your own life experiences. They can be good examples to showcase on a resume or in a job interview.

TOP FIVE SOFT SKILLS THAT EMPLOYERS ARE LOOKING FOR⁶¹

- 1. Ability to communicate well verbally and in writing
- 2. A strong work ethic
- 3. Ability to work in a team
- 4. Initiative
- 5. Ability to analyze a problem

A positive attitude is another attribute that employers value. Employers will gravitate to you if you are enthusiastic about your work, welcome constructive feedback, and are eager to take on new projects and learn more about your field.

2. Technical. Many green jobs require very specific technical skills, including a good foundation in math and science. For instance, a power plant operator needs to understand computer programs and public safety practices, but she also must know chemistry. A pipefitter uses geometry and calculus in addition to her knowledge about the materials, tools, and techniques of her trade. Be sure to understand what technical skills an employer will want for a particular job and how those skills must be acquired and documented (e.g., a certificate of completion or college degree). You can get technical skills through formal training, such as college or an apprenticeship program, or through on-the-job training.

STARTING WITH WHAT YOU'VE GOT

Earning a degree or certificate won't necessarily take as long as you think. Many programs offer credits for life experiences, and credits you earned previously may still count toward your credential. Check with your local higher education institution or speak with a career counselor for more information.

TRANSFERRING YOUR SKILLS

It's likely you have some of these skills already and will be able to carry them over to a new job. There are probably some skills that you can improve or new ones that you will need for your career, now and in the future. Your first step is to identify the skill sets that you have and the ones that you will need, and then locate the training that will help you develop the skills to be a strong job candidate and employee for the long-term.

NEW OPPORTUNITIES ALONG OLD PATHS

Many green jobs require the same or similar technical skills as traditional occupations. Here are several examples:

- Electricians: Opportunities will grow for those who have additional training in areas such as solar panel installation and energy auditing.
- Engineers: Their services will be used in many ways, including designing new technologies like wind turbines or pollution-control devices.
- Roofers: In addition to installing solar panels, roofers may be called upon to bind, seal, or insulate buildings.
- Carpenters: Traditional carpenters can become green carpenters by learning to install energy-efficient windows and doors and use green technology and recycled materials.
- Plumbers: Certified green plumbers are qualified to install solar-powered hot water tanks and gas lines for high-efficiency gas furnaces, and can help customers make green choices.
- Sheet Metal Workers: Updating knowledge, skills, and credentials can help prepare sheet metal workers to install energy-efficient heating and cooling systems.

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FINDING EDUCATION AND TRAINING OPPORTUNITIES

Setting the goal to start a green career that enables you to support yourself and your family and help protect the planet is easy enough. Achieving that goal can be the challenge. That's why it is important to be strategic about the education you seek to help you reach your goal.

One of the first steps in training for a green career is selecting a program that matches your current skills and interests. Annette Williams, director of Bronx Environmental Stewardship Training (BEST) at Sustainable South Bronx, says to be thorough in your search. "You have to find something that hones in to who you are and your personality. It's not just going into a program. It's taking the time to ask yourself important questions, like whether the nature of the job is right for you and the reasons why." As for where to start in your search for the right training program, Annette recommends looking locally. "The best place to start is within your community," she says. "There are a lot of resources available."

At the moment, there is no single resource for finding green jobs training, but you can find many excellent resources online and in your region. Here is an overview of the kinds of education and training providers that are out there:

Training Programs for Young Adults. Several programs help people ages 16 to 25 develop the skills needed to start a successful green career while helping their communities. Programs like The Corps Network, YouthBuild USA, and the U.S. Department of Labor's own Job Corps are available in most parts of the country for people who meet income eligibility requirements. YouthBuild programs received a significant share of the \$5.8 million in Green Capacity Building Grants awarded by the Department of Labor through the American Recovery and Reinvestment Act.

Pre-Apprenticeship Programs. Pre-apprenticeship programs provide soft skills, basic technical skills, and safety training in addition to academic preparation for entrance exams to apprenticeship programs. Pre-apprenticeship programs can vary, so do your homework and make sure any program you are considering provides the skills and training you need. Community-based groups and community colleges are some of the organizations that offer pre-apprenticeship programs. Graduates of these programs have met the prerequisites to apply for and be accepted into Registered Apprenticeship programs.

Registered Apprenticeship Programs. You can develop the necessary skills for many good green jobs without a college diploma. Apprenticeships provide on-the-job training for workers to enter the skilled trades — jobs that can provide good wages and new opportunities as the green economy grows. Federal guidelines set training and instruction requirements for apprenticeship programs. Some apprenticeships are run by labor unions independently or in conjunction with community colleges and other training providers. Some programs offer college credit for the apprenticeship or are associated with college programs, positioning you to earn a degree or be ready for further training and education.

Proprietary Schools. These for-profit schools offer general occupational or trade programs in areas such as construction, information technology, and business administration. Their programs are usually short-term and focus on applied learning. In most cases, states require that these schools be <u>licensed</u>. Licensure helps to guarantee that the school meets basic educational

and business standards. These training providers may or may not be <u>accredited</u> <u>postsecondary institutions</u>, which is another indicator of quality. Several states, including Louisiana, Massachusetts, Texas, and Michigan, maintain directories of licensed proprietary schools. Search online and in your area to determine if there is a green job training program that meets your needs.

Community Colleges. Community colleges can be a gold mine for relatively quick, practical, and cost-effective training that leads to green jobs. Their programs often lead to two-year, or associate, degrees and their certification programs can often be completed sooner. Two-year schools across the country have been adding green certification programs for everything from wind technicians to solar cell designers to energy auditors, positioning themselves at the forefront of a rapidly-changing job market. Check with your community college about what green training programs it offers.

Four-Year Colleges and Universities. Some green jobs require a bachelor's degree or more. College graduates with degrees in areas such as engineering, chemistry, architecture, and environmental policy all have skills well-suited for a green economy. Ask admissions officers and school counselors at the college you are considering or attending about educational programs that can lead to green careers.

Programs Through Your Employer. If you already have a job, your current employer might be a great resource for on-the-job training or certified training in green areas. Ask your human resources office or supervisor for information about the offerings available through your workplace.

Internships. Many employers offer internships in conjunction with training programs. If you are enrolled in a program now, ask about available internships, or you can look online for opportunities in your area. Although internships are typically unpaid, they can be a great learning experience and help you to land a good job down the road.

Certification Programs. You can become certified for many green jobs by completing a certification process, typically through an employer, training provider, or independent agency. Most certifications require a candidate to complete courses or training, and/or gain on-the-job experience, before taking an examination. The most credible and valuable certifications are usually those awarded by an independent agency. For example, solar panel installers may participate in the independent, professional certification program administered by the North American Board of Certified Energy Practitioners. In addition to requiring that you be certified, states generally require you to obtain a license.

Community and Faith-Based Organizations (CFBOs). These types of organizations sometimes offer education, training, and job placement services. A number of CFBOs received Department of Labor green jobs grants.

YOUR SAFETY AND HEALTH ON THE JOB

As you prepare to enter a green job, it is important to understand the health risks you may face at the worksite. The potential safety and health concerns vary by the type of job and location. For example, a biomass boiler operator and a weatherization worker work in different environments and, as a result, the specific hazards for each differ. Still, there are some commonalities across many green jobs: chemical exposure, fall prevention, electrical safety, hearing protection, and similar issues.

Look for a training program that includes instruction on

- Worker safety and health rights;
- Proper use of equipment and ensuring that protective gear fits you well; and
- Standard industry safety procedures.

When on the job, take the safety and health practices seriously, and if you have any concerns about the working conditions, talk to your employer. If you feel you are in a dangerous situation, visit the Department of Labor's Occupational Safety and Health Administration's website, (http://www.osha.gov) to learn how to file a complaint.

For further information and resources, see Chapter 8, "Overcoming Challenges on Your Career Path."

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ASSESSING TRAINING OPPORTUNITIES OR OPTIONS

Before you select a training provider, you should understand the requirements of the program you are entering. Depending on your goals, previous education, and personal situation, some programs may be a better fit for you than others. Be sure you look at these requirements when considering a program.

Program Prerequisites. Some training programs will require that you already have completed certain courses before you can start. For example, an agribusiness management bachelor's degree program might require participants to have completed higher-level math courses in order to take more advanced classes in economics and statistics.⁶⁴ Your training provider will probably test you in areas such as reading, writing, and math, and ask to see records from your previous schools. If you haven't met the program prerequisites, or aren't at the level you need to be, you can get there, but factor in the costs and time it will take for additional coursework.

Completion Certifications. Workers not only need soft and technical skills, they also need portable skills so that they can move up the ladder in their chosen occupation. Portable skills are often dependent on industry-recognized certifications from a college or university, Registered Apprenticeship program, or other training program. Be sure that the skills you will be taught and the credential you will receive from a program will be helpful to your career in the long-term. Compare the background information you've gathered from employers, writings on the industry, and other sources to the credentials and training the program offers.

Time Commitments. How much time you realistically will need to devote to a program is another important factor in choosing training. You will need to account for class and study time, as well as transportation to and from class. These considerations are especially important if you plan to balance studies with work and/or family. Some programs offer evening and weekend classes, online classes, or other opportunities to achieve goals within your existing life. Be sure to ask about expectations around time and effort when talking to a program representative.

Financial Requirements. Most education and training programs for high-quality green jobs come with a price tag, in the form of tuition and fees, books and equipment, and other expenses. Make sure to estimate the full cost of your education. This step will give you a sense of how much financial aid and other resources you will need.

MAKING THE RIGHT CHOICE

Education and training are investments in your future, so it is important to put your energy, time, and money into good programs. Here are some tips on judging the quality and value of programs:

- Universities and community colleges typically offer green job training programs, including entry-level training programs.
- Ask your prospective training provider which companies typically hire their graduates, whether they keep track of employment after graduation, and if they provide placement help. Community colleges, in particular, often have partnerships with companies to train the green workforce, and this option can be a great networking opportunity.
- Ask people already working at the job you want where they went for training and the types of credentials they earned. Because some green jobs are fairly new, you may find that desired credentials for these jobs are still evolving, but you might also learn what transferable skills are most relevant for those positions.

GETTING HELP | DENTIFYING TRAINING

Right now, throughout your area, there are resources available to help you find the right training opportunity. From information on the state level down to your community, the resources are there, waiting to assist you in finding the right path for your future. All it takes is a little investigation on your part.

Government. Every state has One-Stop Career Centers to help job seekers find employment and training. They can help you assess your skills and explore your career options, and can direct you to jobs or apprenticeships. Contact your local center and ask how it can help link you to training opportunities for jobs in the green economy. Several states also have offices dedicated to green jobs. Some states (such as Washington, Michigan, and New Jersey) include green jobs training resource pages on their websites.

ONE-STOP ASSISTANCE

One-Stop Career Centers provide a wide range of assistance to job seekers, including training referrals, career counseling, job listings, and other employment-related services. To find your local One-Stop Career Center, go to http://www.careeronestop.org.

Community Organizations. In many areas, community organizations help women find jobs and training, as well as provide valuable related services, such as improving soft skills, building confidence, planning a career, and managing finances. These organizations' strong ties to their communities mean that they can be a great place for getting in touch with support networks and local resources to help you reach your goals. Most provide training at a low cost and have valuable connections to employers for placement after the training. Some of these organizations have a focus on helping women in particular, so they have a keen understanding of the needs of women and the unique challenges that they face in the workforce.

Industry. <u>Career and technical education</u> opportunities are often tied closely to the needs of employers. Training and certification programs specific to certain industries are often listed on the websites of national industry organizations and trade unions. Also, look into your local career and technical education center's offerings. Explore the opportunities in your current industry or talk to your local employers and organizations for more information on identifying training opportunities.

FINANCING EDUCATION AND TRAINING

Investments in education pay off in the long run. Financial aid is available for most people, and there are many other ways to fund your education. In some cases, training might be provided at no cost to you. The first step in knowing how to finance your education is to consider the expenses you will have and how they match up with your resources. Here are some costs to consider:

- Tuition and fees
- Books and supplies
- Transportation
- Exam fees
- O Child care

Once you have assessed your situation, talk to your training provider's financial aid office about the resources you can provide and how to make up the difference in cost. If you need to pay for the program on your own and you don't have all the money saved to pay for tuition up front, you might be able to spread payments out over a period of time.

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FINANCIAL AID

There are two basic types of financial aid:

- Merit-Based Aid. This aid is awarded to students based on their skills, talents, or abilities. It is usually considered a gift, so you won't have to pay it back.
- Need-Based Assistance. This aid goes to students who demonstrate financial need. It can come in the form of grants, which are treated as gifts, or loans to be paid back.

Some grants and scholarships can be awarded on both merit and need. To find out what you qualify for, complete the Free Application for Federal Student Aid (FAFSA). The FAFSA is used for all types of federal student aid as well as for most state and institutional financial aid programs. The FAFSA needs to be completed each school year. Not all schools participate in the federal assistance programs, so be sure to ask, or check out the training provider's financial aid information at http://nces.ed.gov/collegenavigator.

FAFSA TIPS

- 1. You can get the FAFSA online or by telephone (http://www.fafsa.ed.gov or 800-4-FED-AID). One advantage to filing online is that you will be notified immediately if you make a mistake.
- **2. Start early!** Financial aid is distributed on a first-come, first-served basis.
- **3. Have your documents organized before you start.** You'll need your last income tax return, Social Security number, and current bank statements, among other documents.

Grants and Scholarships. While you may be eligible for general financial assistance available, such as a Pell Grant (a federal grant) or an Academic Competitiveness Grant, you might also qualify for a grant or scholarship based on the fact that you are studying a green field. For example, there is the National Science and Mathematics Access to Retain Talent Grant, sometimes called the National SMART Grant. Students can receive this grant during their third and fourth years of undergraduate study if they are studying at least half-time, are eligible for Pell Grants, and are majoring in specific areas, such as physical, life, or computer sciences; mathematics; or engineering.

Many scholarships are specifically for women. Ask your program staff and search the Internet. Scholarships are available through training providers, civic clubs, religious organizations, women's groups, professional associations, and labor unions.

Roxanne Vallo had to work very diligently to seek funding for her college education. "I didn't come from a family who had a college fund waiting for me," she says, "so I had to apply for scholarships. ... It took some time, and I researched scholarships extensively." The fact that Roxanne was pursuing an engineering degree improved her prospects for finding scholarships. "There were definitely a lot more opportunities for funding because I was going into engineering," she says. Roxanne also became involved in the American Indian Science and Engineering Society, which awards scholarships to qualified members. "I ran for chapter president and attended all the conferences and participated heavily in that organization." Her efforts paid off: Roxanne now has a job as a structural engineer in the construction industry.

Student Loans. Student loans are another resource to help finance your education. Some — like the Perkins, Stafford, and Direct loans — are available through the federal government. Some Stafford loans are subsidized (meaning that the government pays the interest on your loan during certain periods) and others are not. Eligibility is based on financial need as determined by the FAFSA. Most states also run their own student loan programs.

Attending an education/training program can add costs such as books, tuition, and/or travel and child care. Some programs may offer stipends to cover these costs. Examples include the Brownfield Training Program in New York City;⁶⁵ the California Green Corps;⁶⁶ Limitless Vistas, Inc. (Conservation Corps of Greater New Orleans project);⁶⁷ and Greencorps Chicago.⁶⁸

Employer Assistance. If you are employed, your company might help you finance education and training. Some employers offer tuition reimbursement programs or will pay for training up front, especially if your program is related to your current job or a career path at the company. It's worth asking about the company's policies; talk to your supervisor or human resources office.

SAVINGS PLANS

Qualified tuition savings plans (sometimes called "529 plans" for the section of the Internal Revenue Service (IRS) Code that authorizes them) are another option, particularly if you have time to save up before beginning your program. These plans have different names depending on where you live, but each state and the District of Columbia has at least one. The plans are operated by a state or educational institution and can be used to save for college or other postsecondary training. These plans provide some tax advantages, but make sure you can use the funds you save in the plan for the type of program you want. Additional information is available at http://www.irs.gov/newsroom/article/0,,id=213043,00.html.

TAX CREDITS FOR EDUCATION

There are three tax credits that may be available to you if you are paying education costs for yourself or, in many cases, another student who is a member of your immediate family. Most benefits apply only to higher education. For each student, you can elect for any year only one of the following credits:

- Hope Credit. To claim the Hope Credit, a student must be enrolled in the first two years of college, working toward a recognized degree, taking at least half the full-time workload for at least one academic period, and can't have claimed the Hope Credit in more than one previous tax year. The student must be you, or your dependent for whom you claim an exemption. The Hope Credit you are allowed may be limited by the amount of your income and the amount of your tax. The maximum Hope Credit for 2009 was \$1,800 for each eligible student. For students who attended school in a Midwestern disaster area, the maximum was \$3,600. The Hope Credit is nonrefundable, which means that it can reduce your tax to zero, but if the credit is more than your tax the excess will not be refunded to you.
- American Opportunity Credit. The American Opportunity Credit is a new credit for tax years 2009 and 2010 that modifies the Hope Credit, making it available to a broader group of taxpayers. It is a partially (40 percent) refundable tax credit for educational expenses such as tuition, fees, and course materials during each of the first four years of postsecondary education for students attending school at least half time. Married, joint-filing couples with a modified adjusted income of less than \$160,000, or others with an income less than \$80,000, qualify. Many of those eligible for the American Opportunity Credit will qualify for the maximum annual credit of \$2,500 per student. The maximum amount of refundable credit is \$1,000.

APPLYING FOR SCHOLARSHIPS

- Search for scholarships using multiple sources including the Internet, your library, and your school.
- Go after the scholarships you determine to be the best fit for you.
- Develop a checklist of requirements and deadlines.
- Order school transcripts in advance.
- Ask early for letters of recommendation.
- Allow time to have someone proofread your essay.
- Submit your application on time and in the requested format.

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Although the Opportunity Credit generally will be larger for most people than the Hope Credit, the Hope Credit may be larger for students who attend school in a Midwestern disaster area. You may not claim both the American Opportunity Credit and the Hope Credit.

O Lifetime Learning Credit. Unlike the American Opportunity Credit or Hope Credit, you may claim the Lifetime Learning Credit for qualifying courses at the undergraduate, graduate, or professional level. The Lifetime Learning Credit can be claimed for 20 percent of the first \$10,000 of qualified expenses, up to \$2,000. There is no limit on the number of years the credit can be claimed. It is available for all years of postsecondary education and for courses to acquire or improve job skills. You don't need to be pursuing a degree or other recognized education credential to claim the credit.

For more information on these tax credits and what expenses qualify for them, refer to IRS Publication 970, Tax Benefits for Education (http://www.irs.gov/pub/irs-pdf/p970.pdf).

FEDERAL AND STATE TAX PROGRAMS

The federal government offers two other tax credits that may be of assistance in paying for education expenses: the Earned Income Tax Credit (EITC) and the Child Tax Credit (CTC). Visit the IRS website (http://www.irs.gov) for more information on how to claim these credits on your federal income tax return.

Many states have built on the EITC and CTC, and offer a state EITC. Some states also offer additional refundable child care tax credits as another way to reduce the income tax liability of workers with child care expenses. Also, check the IRS website for the location of a Volunteer Income Tax Assistance (VITA) site near you. VITA sites, often run by local community-based organizations, will not only help you gain access to these valuable tax credits, including the EITC and CTC — a volunteer also may prepare your taxes for free.

ADDITIONAL RESOURCES

You may find these resources helpful in planning for a green career. Web links can change, so you may need to do Internet searches to find the latest information.

APPRENTICESHIPS

GOVERNMENT RESOURCES

• U.S. Department of Labor (DOL), Employment and Training Administration (ETA). DOL provides general information about registered apprenticeship programs. http://www.doleta.gov/OA

CAREER AND TECHNICAL EDUCATION

GOVERNMENT RESOURCES

• U.S. Department of Education (ED). ED provides career and technical education information. http://www.ed.gov/about/offices/list/ovae/index.html

NON-GOVERNMENT RESOURCES

• Association for Career and Technical Education (ACTE). ACTE provides information on career and technical education systems in each state. http://www.acteonline.org/profiles.aspx

FINANCIAL AID AND OTHER EDUCATIONAL FUNDING OPPORTUNITIES

GOVERNMENT RESOURCES

- National Resource Directory (NRD). NRD is an online partnership for wounded, ill, and injured service members, their families, and those who support them. It provides access to services and resources at the national, state, and local levels that support recovery, rehabilitation, and community reintegration. http://www.nationalresourcedirectory.gov
- National Science Foundation (NSF). NSF provides a searchable list of funding opportunities for students, small business programs, and scientific program areas. http://www.nsf.gov/funding
- U.S. Department of Education (ED). ED provides information about the Free Application for Federal Student Aid (FAFSA), a link to fill out the form online, and a link to check the status of a submitted FAFSA. http://www.fafsa.ed.gov

NON-GOVERNMENT RESOURCES

- College Savings Plans Network (CSPN). CSPN provides detailed information about 529 college savings plans and allows you to compare plans from around the country. http://www.collegesavings.org/index.aspx
- FinAid. FinAid is a site that is a source of student financial aid information, advice and tools. It contains financial aid calculators for projecting college costs, planning savings, and estimating loan payments. http://www.finaid.org/calculators
- FinancialAidTips.org. FinancialAidTips.org provides financial aid sources, tips, and other useful information. http://www.financialaidtips.org
- ScholarshipHelp.org. ScholarshipHelp.org provides tips for evaluating and ranking scholarship opportunities. http://www.scholarshiphelp.org/evaluating_opportunities.htm
- U.S. Scholarship Guide. The U.S. Scholarship Guide provides information on grants by state (http://www.usscholarshipguide.org/grants/state/index.html), loans (http://www.usscholarshipguide.org/loans/undergrads.html), college savings plans (http://www.usscholarshipguide.org/collegesavings/index.html), and scholarships for women (http://www.usscholarshipGuide.org/scholarship/minority/women.html).

GENERAL AND TECHNICAL SKILLS

GOVERNMENT RESOURCES

 Delaware Economic Development Office (DEDO). DEDO provides detailed information about workforce development including soft skills and self-evaluation. http://dedo.delaware.gov/BusinessServices/ WorkforceDevelopment/WorkforceDevelopment_softskills.shtml?WorkforceDevelopment

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- U.S. Department of Labor (DOL). DOL has information about green jobs and green training grants through its Green Jobs Initiative. http://www.dol.gov/dol/green
 - mySkills myFuture. This is an electronic tool developed by DOL's Employment and Training Administration that enables previously-employed job seekers to match their occupational skills and experiences with the skills needed in other occupations. http://www.myskillsmyfuture.org
 - Occupational Information Network (O*NET). O*NET is a comprehensive, user-friendly career exploration tool created for DOL's Employment and Training Administration with a special section on the green economy.
 http://onetcenter.org/green.html

Non-Government Resources

• Society for Human Resource Management (SHRM) in conjunction with WSJ.com/Careers. The report *Critical Skills Needs and Resources for the Changing Workforce* (June 2008) highlights the various skills, activities, and content areas needed in today's workplace. http://www.shrm.org/Research/SurveyFindings/Articles/Pages/CriticalSkillsNeeds.aspx

GREEN CERTIFICATIONS

Non-Government Resources

• Green for All. Green for All provides a description of green job opportunities, links to green jobs listings, a list of useful certifications for green careers, and resources for green job training. http://www.greenforall.org/resources/green-collar-jobs-resources

INTERNSHIPS

GOVERNMENT RESOURCES

• U.S. Department of Energy (DOE). DOE provides information about the Community College Institute, a program that places students from community colleges in paid internships in science, engineering, and technology at DOE National Laboratories. http://science.energy.gov/wdts/cci

Non-Government Resources

- Action Without Borders (AWB). AWB provides a search engine for finding jobs and internships. http://www.idealist.org
- Career Education Institutes. Career Education Institutes published The Big Green Internship Book: Internships and Summer Jobs for the Environment, 2009. http://www.internships-usa.com/BigGreen/envint.htm
- SustainableBusiness.com. SustainableBusiness.com provides a search engine for finding internships in green companies. http://www.sustainablebusiness.com/jobs

FINDING EDUCATION AND TRAINING ()PPORTUNITIES

GOVERNMENT RESOURCES

- U.S. Department of Education, National Center for Education Statistics (NCES). The NCES College Navigator
 allows you to search for colleges by state and provides information on programs/majors, tuition, financial aid,
 and more for each college. http://nces.ed.gov/collegenavigator
- U.S. Department of Labor (DOL), Employment and Training Administration (ETA). DOL has information about green jobs and green training grants through its Green Jobs Initiative. http://www.dol.gov/dol/green
 - CareerOneStop. CareerOneStop, created for ETA, provides a tool to help locate Workforce Investment Act-eligible training providers in your area. http://www.careeronestop.org/WiaProviderSearch.asp
 - High Growth Job Training Initiative. The initiative is a strategic effort to prepare workers for job opportunities in high-growth, high-demand sectors. http://www.doleta.gov/BRG/JobTrainInitiative
 - Job Corps. Job Corps is a free education and training program that helps young people prepare for careers, earn high school diplomas or GEDs, and find and keep jobs. http://jobcorps.gov
- U.S. Department of Labor, Office of Disability Employment Policy (ODEP). ODEP funds a youth technical assistance center, the National Collaborative on Workforce and Disability for Youth, that offers a wealth of resources for youth employment. http://www.ncwd-youth.info

NON-GOVERNMENT RESOURCES

- American Association of Community Colleges (AACC). AACC's Community College Finder provides a
 directory of community colleges by state. http://www.aacc.nche.edu/Pages/CCFinder.aspx
- Building Performance Institute (BPI). BPI provides a list of BPI-affiliated training providers. Candidates who
 successfully complete these courses should be able to achieve BPI Certification through written and field
 practical testing. http://www.bpi.org/documents/BPI_Recognized_Primary_Training_Providers.pdf
- Community College Week. Each year Community College Week, an in-depth source of information for and about two-year college faculty, administrators, and trustees, releases a special report featuring the top 100 degree- and certificate-producing institutions by discipline. http://www.ccweek.com/Top_100_Archives.aspx
- The Corps Network. The Corps Network is a national network of the Service and Conservation Corps, state and local programs that engage primarily youth and young adults (ages 16 to 25) in full-time community service, training, and educational activities in 42 states and the District of Columbia. http://corpsnetwork.org
- Green for All. Green for All provides a description of green job opportunities, links to green jobs listings, and resources for green jobs training. http://www.greenforall.org/resources/green-collar-jobs-resources
- Interstate Renewable Energy Council (IREC). IREC provides a database and map of green training providers. http://irecusa.org/irec-programs/workforce-development/education-information/training-providers
- North American Board Certified Energy Practitioners (NABCEP). NABCEP maintains a list of registered
 providers for Entry Level Photovoltaic Exams. The Entry Level PV Program is designed for individuals wanting
 to get involved in the solar electric industry. http://www.nabcep.org/resources/training
- Residential Energy Services Network (RESNET). RESNET provides a list of energy-rater training providers that are accredited by the Network. http://www.natresnet.org/programs/training/directory.aspx

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• RWM Vocational Schools Database (RWM). RWM provides a list of private, postsecondary vocational (trade) schools, including resources for individual states. http://www.rwm.org/rwm

This list is not exhaustive and inclusion on this list does not represent an endorsement of any institution or program. While all efforts are made to ensure that hyperlinks are working and the information contained at the referenced websites is useful, the authors do not endorse, take responsibility for, or exercise control over the websites or organizations, nor do they vouch for the accuracy or accessibility of the information contained on these sites. The authors also cannot authorize the use of copyrighted materials contained in these sites. Users must request such authorization from the sponsor of the website.







End Notes

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⁶³O*NET OnLine. "Summary Report for: 47-2152.01 - Pipefitters and Steamfitters." http://online.onetcenter.org/link/summary/47-2152.01

⁶⁴Department of Agricultural, Food, and Resource Economics. "Agribusiness Management Curriculum Requirements." Michigan State University (2010). http://www.aec.msu.edu/undergrad/ ABMCurriculum.pdf 65NYC Office of Environmental Remediation. "Green Jobs Training Program." The City of New York (2010). http://www.nyc.gov/html/oer/html/community/worker training.shtml

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FINDING YOUR GREEN JOB

Finding your green job requires introducing yourself to prospective employers. This chapter provides you with general information about looking for green employment, including preparing a green resume and cover letter, uncovering job leads, and interviewing. Additional resources and assistance are also available online and in person from a variety of organizations.

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PREPARING A RESUME FOR A GREEN JOB

Whether you are moving into the green economy from a job in another industry or directly from a training program, the first step in getting a green job is writing a solid resume. When preparing a resume, you should be aware of how your experience, credentials, and skills compare with what the employer is looking for in a job candidate. While the type of information you put in your resume may be fairly standard, you should focus on the green aspects of your work history and education. Although you will want your resume to shine, remember to be clear, consistent, and credible in your summation of skills and experience. Nothing will derail your success faster than a resume that can't stand up to scrutiny.

Suzanne White of Austin, Texas, is an electrical engineer who was laid off more than once when her job was outsourced overseas. She went back to school to prepare herself for jobs that will stay in the United States, taking solar energy systems classes at Austin Community College. Now she teaches a solar class for women and recently was hired as a technical sales representative/solar design engineer at a local solar company owned by one of her students. She advises women to think creatively about how they can use their new skills in green jobs. "Get in there and don't be afraid to find out what the technology is about. Get your feet wet, take some classes," she said. "We all have skills and experiences that are very solid. You bring that skill set with you. It's being able to apply it into a new industry that's essential."

The hardest part of writing a resume is often just getting started. To overcome "writer's block," take a look at sample resumes for a variety of fields and experience levels. A local workforce organization, such as a <u>One-Stop Career Center</u>, can also help by providing resume and curriculum vitae templates to follow. Colleagues, friends, and family members may also be willing to share their own resumes or review your draft.

At a minimum, your resume should include these essential features:⁶⁹

- Contact Information: A prospective employer will need to connect with you to arrange an interview or to request additional information. Include a telephone number and e-mail address that you check often. Be sure your voicemail recording and e-mail address leave a positive impression.
- Education: List your academic achievements, awards, and additional training. Be sure to include the certificates and/or degrees earned. If you received a merit-based scholarship or other education honors, note these as well.
- Licenses or Certificates: Let potential employers know about any licenses you have that might fulfill state or industry requirements, as well as any certifications that show your areas of expertise.
- O Work Experience: Introduce employers to your employment history by including your position titles, the companies or organizations for which you've worked, the locations, and brief descriptions of your job responsibilities and achievements. This is your opportunity to demonstrate your abilities and how previous jobs may be applicable to the one for which you are applying. The use of bold lettering or italics is one way to emphasize experience and skills relevant to the position.
- Special Skills: List skills that demonstrate special abilities related to your desired job, such as computer or technical skills. For examples, see "Using Industry Terms" below.

• Professional Affiliations: You may also want to include professional, civic, or social organization memberships, especially if you have held an officer's position or participated in the planning and implementation of projects that would demonstrate your interest in a green issue.

||SING ||NDUSTRY TERMS

Using green economy "buzz" words in your resume demonstrates that you understand the nature of the business for which you are applying. Even if the position is a more traditional one, green terminology might capture the interest of an employer, recruiter, or human resources department, and make your resume stand out. For instance, "sustainability" and "environmentally conscious" are terms you might want to include. Refer to the "Glossary of Terms" in this guide, or visit websites such as http://www.job-hunt.org/green-jobs-job-search/green-industry-glossary.shtml for examples of green terminology.

RECASTING YOUR SKILLS

Your work history is more than a listing of tasks and responsibilities. It may also showcase your <u>transferable skills</u>, demonstrate your interest in the environment, and highlight specific issues you have worked on that are related to the job for which you are applying.

DRAFTING A COVER LETTER

Your cover letter is just as important as your resume. It should personalize your resume, highlight areas of importance to the employer, and sell your specific set of skills. Generally, a cover letter should include the following:⁷⁰

- **Heading:** Include the date and your mailing address, e-mail address, and/or telephone number.
- **Greeting:** If you know the name and/or title of your point of contact, the person who will be reviewing the resumes or who is chairing the search committee, use it in the greeting. If you can't find out who this person is by name, "To Whom It May Concern" or "Dear Madam/Sir" is appropriate.
- Opening: Begin your letter by explaining your reason for writing, listing the job for which you are applying and the source of the job announcement.
- **Body:** This is your opportunity to shine. Explain why your skills and abilities are the perfect match for the job, remembering to use terms from the job description. Use examples of your previous successes to help you stand out from other applicants. You will also want to write about what interests you about the company and the position.
- Closing: Let the employer know when and how you plan to follow up or make additional contact, and be sure to thank the person for her/his time and consideration.

As with your resume, if you need a model, look for examples of cover letters online or elsewhere. Avoid using a generic cover letter. Tailor your letter to the opportunity and organization. Failing to do so reduces your visibility. Employers typically attract many applicants for a given job, so they are looking for those candidates that they can immediately identify as both qualified and unique.

DON'T FORGET THE BASICS

- Show your green awareness by printing your resume and cover letter on recycled paper.
- Grammar and spelling do count; have someone else proofread your letter and resume.

BUZZ WORDS

Here is a small sampling of common words that can be found around the new green economy. Refer to the "Glossary" at the end of this guide for definitions and more terms.

- O Carbon footprint
- O Climate change
- Ecosystem
- O Fossil fuel
- Green building

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WHAT CAN YOU OFFER AN EMPLOYER?

Your resume and cover letter should articulate what sets you apart from others and what benefits you bring to the employer. Start with these questions as you think about how to write concise descriptions and sentences: What have you done at previous jobs that is relevant to this one, and how can you do the same for this job? What unique set of skills do you bring to the job that another candidate would not?

COMPILING A WORK PORTFOLIO

A work portfolio is a collection of samples of your previous work. That could include writing samples, technical drawings, or perhaps photographs of something you built, especially if you are applying for a trade position. Having these examples identified, organized, and ready to show an employer is another important way to demonstrate your abilities. Even if employers don't specifically ask you to share such materials in the job posting, in your resume or cover letter, you can mention that you have such examples available.

UNCOVERING GREEN JOB LEADS

Printed "want ads" are one way to find job leads, but they are far from the only source of information about current openings. Tapping into a variety of sources is more likely to bring you the important result you are looking for in your job search — a great new job! Because jobs can be posted and removed at any time, day or night, it pays for job seekers to check multiple sources several times a week, if not daily.

TRADITIONAL NEWSPAPER ADS

While there has been movement away from the printed word to the world of the Internet as the prime source for information, printed newspaper ads do remain a source for job postings. Look at the postings in the newspapers for the areas where you are seeking to work.

(INLINE JOB ROARDS)

According to CNN Money, as of March 2010 there were more than 80 green job boards online.⁷¹ Some job boards list opportunities in different sectors of the green economy, while others have a more specific sector focus. Industry organizations, such as the American Wind Energy Association (http://www.careersinwind.com) or the U.S. Green Building Council (http://careercenter.usgbc.org),⁷² often host more targeted job boards. See this chapter's "Additional Resources" section for more information on job boards.

JOB BOARDS

- O To save time and simplify your job search, set up an online custom job alert to notify you by e-mail when new jobs are posted that match your search preferences. Many job boards offer this feature, or you may make use of resources such as Google Reader (http://www.google.com/reader/view) in which you set up and store your favorite places on the Web. Such resources allow you to mark the job boards you are following. CareerOneStop's new website mySkills myFuture (http://www.mySkillsmyFuture.org) includes a job board.
- The U.S. Department of Labor created a challenge for the public to identify helpful job boards through the "Tools for America's Job Seekers Challenge."⁷³ The job boards selected are as follows:

General Job Boards	Web Link
America's Virtual OneStop	http://www.americasvos.com
CareerBuilder.com	http://www.careerbuilder.com
Indeed.com	http://www.indeed.com
JobSearchUSA.org	http://www.jobsearchusa.org
Linkup.com	http://www.linkup.com
Monster Newspaper Partnerships	http://media.monster.com/a/i/infomons/pdf/NPP_PartnerList_2009.pdf
Monster.com	http://www.monster.com
Simplyhired.com	http://www.simplyhired.com
USAjobs.gov	http://www.usajobs.gov

SOCIAL NETWORKING

Networking is about utilizing all the connections you may have, both personal and professional, to help you secure the job you are seeking. There is a range of approaches and strategies to networking. Here are some examples and resources:

- O LinkedIn: LinkedIn is an online network of professionals around the world that lets you connect and showcase your skills and expertise. To use this network, you will need to create a profile. LinkedIn has a Green Jobs & Career Network (http://www.linkedin.com/groups?home=&gid=77194) that is intended to be a resource for those who work in jobs pertaining to social or environmental responsibility (climate change, clean tech, green business, renewable energy, sustainability, etc.) and for those who are seeking employment or information on careers in these areas.
- Meetup.com: Meetup.com is an online social networking portal that facilitates offline group meetings. A Green Jobs Meetup Group (http://green-jobs.meetup.com) is available to assist people in finding green job networking events to help them find a green job and/or find out about green job training.

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- O Twitter: Twitter is a social networking site where people can post brief notes and read others. These postings are called "tweets." The site has a job search component, TwitJobSearch.com that searches Twitter for jobs by keyword. For news and information on green jobs or the green economy, visit http://twitter.com/GreenJobs and http://twitter.com/greeneconomy. See the "Additional Resources" section in this chapter for information on making the most of Twitter in your job search.
- O Blogs: Blogs, or shared online journals, have become an important way to get and disseminate information. You can demonstrate your skills and expertise by posting comments to, or hosting your own, subject-matter blogs. Moreover, following blogs in your field may assist you with locating job openings. For example, the Green Collar Blog is a resource to help people seeking jobs that focus on environmental and social responsibility. The Green Collar Blog is a service of Green Jobs Network (http://www.greenjobs.net).
- O Professional Associations: Industry associations and other membership-based professional organizations offer job postings. Job-hunt.org has a list of over 100 green industry organizations at http://www.job-hunt.org/associations/green-industry-associations.shtml. The "Additional Resources" section in this chapter provides information on some associations for women in industries related to the green economy.

A WORD OF CAUTION: Employers may also use social networks and the Internet when considering you for a position. A 2009 CareerBuilder survey found that 45 percent of the employers responding had used Linked In and Twitter to check out job candidates. Personal behavior discussed or even poor communication skills can be red flags to employers.⁷⁴

Ellen Telander has held several recycling jobs since receiving her bachelor's degree in environmental health from Colorado State University. She says that recycling is a good career for women and that she's never experienced a glass ceiling. But she says landing the job takes more than book work. "Get to know the people in the field. Network as much as you can as young as you can, and if you're in school, try to get work experience in the field as soon as you can, and volunteer as much as you can, because it's all about who you know."

If you are looking for even more opportunities, you can do a keyword search on the Internet to locate additional networks.

PLACEMENT ASSISTANCE

You can find job placement assistance in most job training programs, academic institutions, apprenticeship programs, and union halls. One way to select a training provider is to inquire about the companies with whom they have job fair or interview arrangements where you may find your next green employment opportunities. You can also use private recruitment/ placement services or go to a local nonprofit organization for assistance and/or leads.

Government programs such as local One-Stop Career Centers or the virtual CareerOneStop.org can provide you with information from job leads to support services (see Chapter 8, "Overcoming Challenges on Your Career Path"). If you are under age 24, you may be able to take advantage of services through the U.S. Department of Labor's Job Corps, http://www.jobcorps.gov. If you are making a career change later in life, you may benefit from programs that serve those 55 or older, such as the department's Senior Community Service Employment Program, http://www.doleta.gov/SENIORS. Women veterans may be able to find assistance through their state Veterans Affairs offices or regional Vets Centers (see http://www2.va.gov/directory/guide/home.asp for locations). The national nonprofit organization Business and Professional Women's Foundation offers special employment services for women veterans, http://www.bpwfoundation.org.

Women with disabilities may find assistance at Federal Job Net, http://federaljobs.net/disabled.htm. Young women with disabilities who are enrolled or recently graduated from

undergraduate or graduate programs may find assistance through the Workforce Recruitment Program (https://wrp.gov/LoginPre.do?method=login) co-sponsored by the Labor Department's Office of Disability Employment Policy (ODEP) and the U.S. Department of Defense. Women with disabilities of any age can benefit from ODEP's Employer Technical Assistance Center's EARNWorks program (http://www.earnworks.com), which assists employers in placing qualified individuals with disabilities. In addition, using the disability resource coordinators at One-Stop Career Centers can be helpful in placement assistance and supports and services.

The Labor Department's Employment and Training Administration and ODEP are administering Disability Employment Initiative (DEI) grants in nine states to improve education, training, and employment opportunities and outcomes of adults and youth with disabilities who are unemployed, underemployed, and/or receiving Social Security disability benefits. The DEI is collaborating with the Social Security Administration's Ticket to Work program and promoting the involvement of the One-Stop Career Centers in this program. DEI projects build upon the Disability Program Navigator Initiative by hiring staff with expertise in disability and workforce development to serve as disability resource coordinators in the One-Stop Career Centers. For a list of state DEI contacts, refer to https://disability.workforce3one.org.

Be sure to investigate additional state and local resources in your community. For example, Community Action Agencies are nonprofit organizations established under the Economic Opportunity Act of 1964 to help people reach <u>self-sufficiency</u>. These agencies are connected by a national network that includes the Community Action Partnership. See the "Additional Resources" section in this chapter for contact information.

GOING DIRECTLY TO COMPANIES

One way to search for a job is to identify employers for whom you might like to work. Check out their websites for employment opportunities.

E-MAIL LISTS

You can sign up to receive free specialized e-mails containing job postings at http://www.greenjoblist.com, which is operated by the Green Jobs Network. Other similar services may also exist through other sites or organizations.

JOB FAIRS

Job fairs provide the opportunity to meet potential employers and make a great first impression. Do your homework to ensure that you are spending your time wisely. Talk with the sponsors of a job fair to find out if representatives of the industry of your interest will be attending. Will specific employers that interest you be there? What kinds of jobs do they have open? Be aware that many recruiters attend job fairs to assess the available labor pool and don't have current job openings. Ask the job fair sponsors about any agreements that they may have with employers to ascertain the likelihood of finding job openings at an upcoming job fair.

When you go to a job fair, bring copies of your resume and have a 20-second pitch ready to sell yourself and your skills. Your time with a recruiter will be limited, so focus on highlighting those elements of your knowledge, skills, and abilities that are most likely to keep a recruiter interested. Succinctly describe what you have to offer the employer, and point out where additional information about your background and skills can be found on your resume or in any other job-specific materials you are leaving with the recruiter. Recruiters at job fairs are more likely to be screeners rather than hiring managers, so their attention will be targeted on hearing or seeing specific words or phrases, just as if they were reviewing only your resume. How you present yourself may be the deciding factor in whether your resume moves to the next level for review by hiring managers.

WORKING WITH YOUR ()NE-STOP CENTER

One-Stop Career Centers provide a full range of assistance to job seekers – from job listings and training referrals to career counseling and workshops. Each office has a resource room with helpful information and career counselors who offer individual assistance in making career decisions. If you don't have a computer, you may be able to use one at the One-Stop. To find a One-Stop center near you, call 877-US2-JOBS (TTY: 877-889-5627), visit http://wdr.doleta.gov/contacts, or visit a virtual One-Stop at http://www.careeronestop.org.

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INTERVIEWING FOR A GREEN JOB

Well-written resumes and applications, plus a tenacious effort to find job openings, may pay off with the opportunity to interview with an employer by phone or in person. There may be more than one interview, and there may be more than one interviewer. To prepare, think ahead about questions you may be asked. Also, develop a list of more specific questions you may be asked by carefully studying the job announcement and learning more about the employer. Ask a trusted friend or family member to practice for the interview with you. Composing responses in advance helps you formulate answers so you won't be caught off guard in the interview. Questions that may have a negative edge can be answered positively. For instance, you might answer the question "Why do you want to leave your current position?" by focusing on your hopes for new opportunities and career advancement in the emerging green economy.

Expect your interviewer to ask questions about your specific knowledge, skills, and abilities about the industry. Remember to brush up on "green" terms used with some level of consistency across industries, such as "sustainability" and "renewable energy." You may also be asked about your personal commitment to a greener planet, such as whether you recycle or drive a hybrid vehicle; whether you compost or helped to plant a community garden; and the steps you have taken to make your home more energy efficient. While none of these may be required for employment, your answers will let the interviewer know something about your interests, even if you aren't currently undertaking any of these activities. The interview will also give you an opportunity to ask questions about the company's commitment to being eco-friendly.

TIPS FOR YOUR INTERVIEW

- Scour the Internet for examples of questions employers may ask. You can also check with your local One-Stop Career Center.
- Dress appropriately for the interview. Appearance is an important factor in making a first impression. If you're not sure what appropriate attire for a particular field is, check with the person who scheduled the interview. Dressing neatly is always a good idea.
- Thoroughly research the company and those who will interview you to minimize the unexpected. Your knowledge will also impress the employer.
- Plan the logistics of your travel ahead of time. Arrive five to 10 minutes early; arriving late sets a poor first impression.
- Have one or two questions ready to ask the interviewer. You can ask about next steps in the interview process or something more particular to the job. Avoid asking about wages or benefits at a first interview.
- O Have a list of references ready in case they are requested. In selecting people to serve as references for you, consider those who can discuss your work-related qualities, such as past supervisors or co-workers. If an employer requests character references, personal acquaintances such as religious leaders and your teachers or instructors may provide the best references for you. Provide the reference's name, company, title, and contact information, as applicable. It's a good idea to contact these individuals in advance to let them know you are job hunting and that you'd like to use them as references.
- Be sure to write thank-you notes to interviewers after the interview.
- Follow up by e-mailing or calling to show your continued interest in the position.
- Keep up your job search until you have secured the job you want. Even if you have a great interview, obtaining a desired position in a competitive job market requires persistence and often involves more than one interview before an offer is made.

MORE TIPS ON SEARCHING FOR YOUR GREEN , JOB

- Use a variety of resources, tools, and sources to uncover possible job opportunities. Don't rely on a single method for finding a job, as this may not be the best approach to finding jobs that are available.
- Keep resumes with you at all times and have multiple copies when you attend events such as job fairs.
- Stick with it. The success of your job hunt largely depends on your efforts and determination.
- Stay informed. Know what is going on in the industry and the local market.
- Use other chapters of this guide, such as Chapter 3, "Green Occupations: A Look at What's Out There," and Chapter 7, "Women Succeeding in Green Jobs," to gain a fuller picture of the green job opportunities to consider. This perspective will enhance your ability to see where you can best use your skill set.
- The green economy is growing at different rates in different areas of the country. If you don't find your dream job right away, you may have to keep searching or perhaps apply some creative thinking to invent your dream job. See Chapter 6, "Green Entrepreneurship," to read about the possibility of self-employment.
- Seek support from community organizations, recruiters, family, and friends.

ADDITIONAL RESOURCES

You may find these resources helpful in planning for a green career. Web links can change, so you may need to do Internet searches to find the latest information.

GENERAL JOB SEARCH RESOURCES

GOVERNMENT RESOURCES

- U.S. Department of Energy (DOE). DOE provides a list of private-sector and nonprofit websites that can help you identify clean energy jobs. http://wwwl.eere.energy.gov/education/clean_energy_jobs.html. For jobs in DOE see http://jobs.energy.gov.
- U.S. Department of Labor (DOL). DOL has information about green jobs and green training grants through its Green Jobs Initiative. http://www.dol.gov/dol/green
 - Bureau of Labor Statistics (BLS). BLS' Occupational Outlook Handbook is a nationally-recognized source of career information designed to provide valuable assistance to individuals making decisions about their future work lives. A special feature of the Handbook is "Finding and Applying for Jobs and Evaluating Offers." http://www.bls.gov/oco/oco2004.htm
 - CareerOneStop. CareerOneStop, created for DOL's Employment and Training Administration (ETA),
 provides an array of online job seeker tools (http://www.careeronestop.org) and allows you to search for
 a One-Stop Career Center in your area (http://www.servicelocator.org). If you require assistance while
 using the online services, call 877-348-0502 for help.
 - mySkills myFuture. mySkills myFuture is an electronic tool developed by ETA that enables previouslyemployed job seekers to match their occupational skills and experiences with the skills needed in other occupations. http://www.myskillsmyfuture.org
 - Occupational Information Network (O*NET). O*NET is a comprehensive, user-friendly career exploration tool created for ETA with a special section on the green economy. http://onetcenter.org/green.html

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NON-GOVERNMENT RESOURCES

• The Community Action Partnership. The Community Action Partnership is a nonprofit, national membership organization representing the interests of community action agencies across the country that help low-income Americans achieve economic security. The Partnership's website allows you to search for a community action agency in your area. http://www.communityactionpartnership.com/index.php?option=com_spreadsheets&view=search&spreadsheet=cap&Itemid=188 or call 202-265-7546.

GREEN JOB ROARDS

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- CareerPath.com. CareerPath.com provides comprehensive information to help you in your job search, including a broad-based job search component. http://www.careerpath.com
- Environmental Career Opportunities. Environmental Career Opportunities provides information, jobs, and other resources in the environmental field. http://www.ecojobs.com/natural-resource-and-conservation-jobs.htm
- Great Green Careers. Great Green Careers, a service of Ogden Publications, connects
 employers and job seekers in the green industries and provides resources on green careers
 and training programs. http://www.ogdenpubs.com/greatgreencareers
- Green Jobs Network. Green Jobs Network connects people seeking jobs that focus on environmental and social responsibility with available opportunities and resources. http://www.greenjobsearch.org
- Green Job Spider. Green Job Spider is a job search engine focusing on green jobs. http://www.greenjobspider.com
- TreeHugger Job Board. The TreeHugger media outlet contains a job board. http://jobs. treehugger.com

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- Green Collar Blog. This is a resource to help people seeking jobs that focus on environmental and social responsibility. http://www.greencollarblog.org
- The Green Economy Post. The Green Economy Post blog portal provides site visitors with green career information and news. http://greeneconomypost.com

SOCIAL NETWORKING SITES

Non-Government Resources

- LinkedIn. LinkedIn has a Green Jobs and Career Network group, a resource for those who work or are seeking employment in jobs pertaining to social or environmental responsibility. http://www.linkedin.com/groups?gid=77194
- Twitter. TwitJobSearch.com provides job searching by keyword. For green job tweets (postings which signal the availability of information or provide an update to previously posted material), see http://twitter.com/GreenJobs. For tweets on the green economy, see http://twitter.com/greeneconomy.

WOMEN'S ASSOCIATIONS WITH JOB BOARDS

NON-GOVERNMENT RESOURCES

- Association for Women in Science (AWIS). AWIS offers a job bank for job seekers, plus news, events, local chapters, and other resources to overcome obstacles for women in the sciences. http://www.awis.org
- Institute of Electrical and Electronics Engineers (IEEE), Women in Engineering (WIE). Among other things, this IEEE committee facilitates the development of programs and activities that promote women's entry into and retention in engineering programs. It provides employment services and job postings for members, plus information related to the engineering field. http://www.ieee.org/portal/site/mainsite/menuitem.818c0c39e85ef176 fb2275875bac26c8/index.jsp?&pName=corp_level1&path=committee/women&file=index.xml&xsl=generic.xsl&
- National Association of Women in Construction (NAWIC). NAWIC has job resources, news, and other resources such as information on registered apprenticeship programs. http://www.nawic.org
- Society of Women Engineers (SWE). SWE has a career center that can help job seekers find a new job or take the next step in their career. http://societyofwomenengineers.swe.org
- Women in Technology International (WITI). WITI is a networking site to help women working in technology. http://www.witi.com

NEWS SOURCES

NON-GOVERNMENT RESOURCES

- Green News Network. Green News Network, a project of Green Economy Media, collects green news articles from across the Web and compiles them on one website (http://www.greennewsnetwork.org) and features a Green Jobs Network with job postings (http://www.greenjobs.net).
- GreenBiz.com. GreenBiz.com is a news information source that can help keep you up-to-date on the latest in the green economy. It also has a Green Careers and Jobs Center. http://greenbiz.com/hot-topic/greenjobs

This list is not exhaustive and inclusion on this list does not represent an endorsement of any institution or program. While all efforts are made to ensure that hyperlinks are working and the information contained at the referenced websites is useful, the authors do not endorse, take responsibility for, or exercise control over the websites or organizations, nor do they vouch for the accuracy or accessibility of the information contained on these sites. The authors also cannot authorize the use of copyrighted materials contained in these sites. Users must request such authorization from the sponsor of the website.

End Notes

⁶⁹CareerOneStop. "Resume Tutorial, Essential Features."
U.S. Department of Labor, Employment and Training Administration (2010). http://www.careerinfonet.org/resume/resume_features.asp?nodeid=26

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⁷¹Fisher, Anne. "Getting a Green Job Isn't So Easy." CNN Money.com (2010). http://money.cnn.com/2010/03/01/news/economy/green_jobs.fortune/index.htm ⁷²Green Collar Blog. "Green Job Boards" (2010). http://www.greencollarblog.org/green-job-boards.html

⁷³U.S. Department of Labor. "U.S. Department of Labor Announces Results of 'Tools for America's Job Seekers Challenge" (2010). http://www.dol.gov/opa/media/press/eta/eta20100146.htm

⁷⁴Grasz, Jennifer. "45% of Employers Use Facebook-Twitter to Screen Job Candidates." *Oregon Business Report* (2009 Aug.). http://oregonbusinessreport.com/2009/08/45-employers-use-facebook-twitter-to-screen-job-candidates

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OVERCOMING Challenges on Your Career Path

> PLANNING YOUR Green Career











GKEEN Entrepreneurship

Every day, women are starting their own businesses. In fact, women-owned businesses grew at nearly twice the national average for all other business types between 1997 and 2006. An estimated 7.2 million companies were owned entirely or mostly by women in 2008.

While women have made substantial inroads into entrepreneurship, there remains plenty of opportunity for women to create and grow businesses. Only one in five companies with \$1 million in annual <u>revenue</u> — a standard measure of success — are women-owned businesses. Moreover, only about four percent of all revenue is generated by women-owned businesses, according to the Center for Women's Business Research.⁷⁶

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OPPORTUNITIES IN THE GREEN ECONOMY

The growing commitment to <u>sustainable</u> principles has increased the demand for new green products and services. Businesses and consumers are looking for better ways to reduce waste, minimize our impact on the environment, and leave a cleaner, greener world for our children and grandchildren. The growing emphasis on protecting the environment translates into opportunities for entrepreneurs — women with ideas, energy, and smart strategies to start and operate their own green businesses and organizations.

Being a green business owner can offer meaningful employment that is economically rewarding, socially responsible, and environmentally beneficial. At the same time, it can help women looking to balance their family lives with their professional ambitions. The green economy offers women a win-win situation, to engage their values *and* achieve financial success.

In addition, many women business owners are already environmentally conscious in their companies. In one survey, 71 percent of the women owners said they were working to make their businesses greener, and 60 percent said they are "greening" their products.⁷⁷

EXAMPLES OF INCORPORATING GREEN PRODUCTS/SERVICES INTO EXISTING BUSINESSES

- A packaging goods company that sells boxes and wrapping made from recycled materials
- A retail store that sells sustainably-produced goods
- A construction company that collects debris and sells it for recycling or other uses
- A consulting company that adds an environmental division

You can find a niche improving existing products and services by making them greener. Or, perhaps you have an idea for an altogether new device or service. The opportunity is there, but how do you decide if green entrepreneurship might be for you, and how do you go from an idea to a real, successful business? This chapter will give you an overview of what it takes.

Laura Culin, president/chief executive officer of Austin Lumber Co. in Texas, took over a family lumber business that had existed since 1929 and made it unique in the area by offering green construction products. Laura began by identifying the green products that might be of interest to her customers: "I started attending several different conventions to find out what architects were looking for, where we were going with building, and what products were available."

RECOMING A GREEN ENTREPRENEUR

Creating a business requires hard work, knowledge, and patience — and risk-taking. If you decide to start your own business, you should recognize and plan for the fact that it will take time to achieve profitability. Exactly how long depends on many factors, but the U.S. Small Business Administration estimates it can take six months or longer for a new firm to turn a profit. Take this into account when developing a business plan; most people need to cover personal expenses as well as those of the business until the point of profitability is reached.

Entrepreneurs run businesses and organizations that range in size from large to small. Most women entrepreneurs are self-employed, and may want their companies to stay small. For others, however, being an entrepreneur presents the opportunity to grow a large enterprise, perhaps even one that operates internationally.

Larger-scale women-owned businesses, which have made it past many development hurdles, often have these qualities:⁷⁹

- They plan for growth.
- They set specific long-term goals, track their progress, and make adjustments as necessary to meet those goals.
- They sell to other businesses.
- They constantly upgrade their skills.
- They bring in business partners.
- They develop strategies for getting the funding they need to support expansion.

STARTING ()FF RIGHT: ()REATING A RUSINESS PLAN

Starting a successful green business involves generating your business idea and following a well-thought-out, step-by-step process to turn that green idea into a real product or service. Entrepreneurs usually begin with an idea for a new product or service, a new business model, or a way to improve an existing business. Green entrepreneurs focus on processes that will reduce waste or preserve natural resources, or products and services that help others "go green."

You should also think about your longer-term goals for the business venture. Where do you want the business to be in one, two, and five years? Some entrepreneurs develop their businesses and then sell them once successful. Other entrepreneurs keep their businesses, which may stay small or grow. Green business practices and technology are changing rapidly, and you should expect the needs and expectations of your potential customers to change as well. Successful entrepreneurs must embrace change and be nimble in adapting to a rapidly-evolving business environment.

A good business plan is fundamental to being a successful entrepreneur. This plan is a well-thought-out strategy for creating, growing, and sustaining your enterprise. It's the how-to-guide for your business. According to the U.S. Small Business Administration, every business plan should include something about each of the following areas. ⁸⁰ (Each item on this list is described in greater detail on the Small Business Administration website at http://www.sba.gov/smallbusinessplanner/plan/writeabusinessplan/SERV_ESSENTIAL.html.)

- Executive summary: Give a concise overview of your plan.
- Market analysis: Show your knowledge of the industry, describe your target market, and demonstrate the potential demand for your product or service.
- Service or product line: Describe what you're selling and who will benefit from it. Demonstrate that people will be willing to pay for your service or product.
- Company description: Include information about the nature of your business and the key elements that will make it successful.
- Organization and management: Outline the organizational structure, including profiles of the management team and qualifications of the board of directors where applicable. You should also discuss the type of legal entity you want to establish (sole proprietorship, partnership, or corporation).
- Marketing and sales management: Describe your plans for creating customers and growing your business.

ENTREPRENEURIAL CHARACTERISTICS

- O Dedication
- O Energy
- Interpersonal skills
- Management skills
- Realistic
- Strategic
- Willingness to take risks

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- Funding request: Lay out how much money you need to create or expand your business and how it will be spent.
- Financials: Analyze your business's expected finances, including forecasted <u>income</u> statements, <u>balance sheets</u>, <u>cash flow statements</u>, and <u>capital expenditure budgets</u>.

HOW GREEN ENTREPRENEURSHIP IS DIFFERENT

There are some aspects of being a green entrepreneur that are different from entrepreneurship in other areas. One key difference is that customers might need to be educated about the green product or service before they are willing to buy. Customers often don't understand the benefits of a green product over a traditional one. So, investing time up front with customers is essential to getting sales. In addition, because green products can be more costly than non-green ones, a green entrepreneur needs to think carefully about how to convince customers that the extra cost is worthwhile for them.

Another major difference is the speed at which green technology is changing. As a green business owner, you will need to stay on top of new information and industry developments to be sure that you can be competitive in the market. Continually educate yourself by reading, going to conferences, taking classes, and participating in relevant organizations.

Sustainability is another consideration for the green entrepreneur. As part of your business plan, consider how you will distribute your product or service in a sustainable way. You might be able to move your product only so far from its origins without having big environmental or financial costs. Also, consider how your products can be sustainably packaged and marketed, and how your company can reduce waste and be energy efficient.

MYTH: The focus on green jobs is a fad.

FACT: Currently, most green jobs are found within the energy efficiency sector, but other opportunities are available and are projected to grow. According to a 2009 Pew Center report, *The Clean Energy Economy: National Numbers*, its research showed that, between 1998 and 2007, jobs in the clean energy economy grew by 9.1 percent, while total jobs grew by just 3.7 percent.⁸¹ Increased support for green jobs by state and federal governments will likely spur growth long into the future.

THINGS TO CONSIDER

Even the most successful entrepreneurs encounter obstacles along the way, and you can count on some struggles. Anticipating issues and preparing to deal with them are important steps on the path to success. Some of the challenges you could face include:

Family obligations. Some women like the idea of self-employment because it can provide a more flexible work schedule to help balance work and family demands. At the same time, starting and running a new business requires a lot of work and will affect your family. You might spend a lot of time on the road, on the phone, and working on paperwork and planning. Include your family members in your business planning process and talk to them about how everyone can contribute to its success.

Managing multiple needs. Many women consider themselves adept at multitasking. However, asking for help is not a sign of weakness. Don't try to do everything on your own. Sometimes it can be useful to hire staff to give yourself more time to focus on those aspects of your business at which you are most skilled. For example, perhaps you are strong in managing projects but aren't as skilled in marketing. Sometimes it will be best to call on lawyers, bankers, accountants, insurance agents, and other experienced professionals who can help you with more complex issues.

Networking. Who you know — and get to know — will make a great difference in your success. Your network of friends and family members is the first place to turn for help with ideas, finances, and customers, but also reach beyond your immediate circle and find opportunities to connect with others who might be good sources of information or who might help you connect to customers. Trade associations, chambers of commerce, women entrepreneurs associations, and charitable organizations are just a few such contact points. Many businesswomen also have been helped after finding role models who offer moral and practical support.

Financing. Solid financing is often critical to a new business's success, but research shows that female entrepreneurs tend to be less likely to seek investors. ⁸² In many cases, it is desirable and necessary to seek out loans from banks or seed money from venture capitalists. Raising the money is one of the biggest challenges for a new business, which is one of the reasons you need a solid business plan. Be patient and persistent. Many proposals are turned down at first, but successful entrepreneurs continue to seek out other funding sources.

Financing can be a real challenge for a budding entrepreneur. Rebecca Lundberg, chief executive officer of the <u>solar energy</u> installation business Powerfully Green, found a unique solution. "We didn't want to be in debt, so I quit my job, and [my partner] continued working. Financially, it was simplified, because he was paying the bills, so we didn't have to take out a loan. … We made do with what we had." To save even more money, Rebecca and her partner decided to run their business from their home rather than renting office space. "Some people are embarrassed that they run a business out of their house, but here I was trying to teach people about sustainable living, and I felt that it was kind of silly to [heat and cool an empty house] so I could drive to an office that I needed to heat and cool."

Marketing and self-promotion. In the world of business, you will need to be assertive, seeking attention for your company and yourself. Spread the word among your networking partners about your business venture, and don't be shy about asking for ideas, help, and the opportunity to do business with them. As your company grows, ask your satisfied customers to refer you to others.

NEW RUSINESS CHECKLIST83

- ✓ Research and plan your business.
- ✓ Get business assistance and training.
- ✓ Choose a business location.
- ✓ Finance your business.
- ✓ Determine the legal structure of your business.
- ✓ Register a business name with your state government.

- ✓ Get a tax identification number.
- ✓ Register for state and local taxes.
- ✓ Obtain business licenses and permits.
- ✓ Apply to become a certified woman-owned business or for other certifications advantageous for getting contracts.
- ✓ Learn your employer responsibilities.

landscape design company Alive Structures, offered this advice for entrepreneurs: "Hiring people is one of the best investments businesses can make. You don't just want to hire people left and right if you don't need them, but I think you should know what is going on as much as you can without feeling like you have to do everything. You must be able to delegate and not do everything yourself ... that overextends people and hurts the business long term."

Marni Majorelle, the

managing principal of the

COMMUNITY SUPPORT FOR WOMEN ENTREPRENEURS

As an entrepreneur, you are ultimately responsible for the success of your enterprise, but running a business is complex, and you will improve your chances

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of success by seeking out help when needed. Aside from hiring specialists, you can seek out training, financing, and help from organizations in your area; there are many resources available.

WOMAN TO WOMAN

A great resource for women business owners is other women business owners. Many communities have women business groups that host events and offer formal or informal peer-to-peer networking. Check online or with women business organizations locally for opportunities to connect with a <u>mentor</u>.

Entrepreneurship programs offer formal training in the basics of entrepreneurship. If you're starting your first business, you should definitely consider enrolling in formal training. As the green economy grows, more green-specific business programs are being created. Here are some of the options now available:

- Community colleges offer individual courses as well as certificate programs to help entrepreneurs at every stage, whether it's developing a business plan, dealing with regulations, adding a product line, holding down costs, or finding new customers. Check to see what programs specifically targeted toward entrepreneurs are available at community colleges near you. Some universities also offer green-specific programs locally or online.
- O Business centers, chambers of commerce, and associations also offer entrepreneurship training. These programs can be a great way to learn more about how to set up your business, network, grow your business, and other important aspects of entrepreneurship.
- Community organizations or professional organizations may offer training that can help you become better prepared for entrepreneurship in the green economy. For instance, you might locate a program on green building or how to fund a nonprofit.
- Many **colleges and universities** have technology-transfer offices that can help you turn your green idea into a growing business. These offices help connect entrepreneurs with university faculty and others who have skills that will help their products or services get into the marketplace. For instance, a scientist may need help taking her test product to the next level; the university might connect her to a faculty member in the business department.

For more information about education options, see Chapter 4, "Educating Yourself for a Green Career."

Small business-focused organizations are located in every state. Some are government offices, while others are private associations. They include Small Business Development Centers (SBDCs), state and national small business associations, and chambers of commerce. A network of Women's Business Centers has been established by the Small Business Administration's Office of Women's Business Ownership; these centers are located across the country in metropolitan areas. The centers offer training and counseling on many topics to help women start and grow businesses.

Economic development agencies can provide important assistance to new green businesses. These agencies, created to support state and local businesses, can help with such things as creating a business plan, finding financing, training a workforce, and streamlining the permitting process.

Business incubators offer a wide range of resources for new entrepreneurs, including office space and fully functional lab facilities. To find an incubator near you, check out the National Business Incubator Association at http://www.nbia.org or contact your local economic

development office or chamber of commerce. A growing number of incubators are specifically designed for green business startups. For example, Green Exchange, located in a renovated industrial building in Chicago, provides retail, office, and live-work spaces to green entrepreneurs, as well as a variety of marketing services.⁸⁵

Financing for new businesses comes in many forms:

- O Loans: Many new business owners will borrow money from banks or other financial institutions, and are responsible for paying back the principal plus interest. Loans are available at all stages of business development. It is important to have a solid business plan when seeking a loan. Microenterprise grants are another option; these are awarded to small businesses owned by people who are economically disadvantaged. Contact your state or local economic development agency to learn if you will qualify. There are also a variety of state and local programs available to help new and existing entrepreneurs. The Small Business Administration provides information on federally-guaranteed loan programs and financing at http://www.sba.gov/financialassistance/borrowers/index.html.
- Angel investors: Some businesses are financed in part by angel investors or groups (often retired entrepreneurs or executives) who will help to fund the startup of a new business in return for some owner equity. Angel investors are individuals who provide money to a private business owned and operated by another person who isn't a friend or a family member. They most often invest in areas such as software, health care services, medical devices, and biotechnology companies that have high potential for growth and profit.
- Venture capitalists: Venture capitalists are another financing option, especially for emerging technology businesses. These investors pool their money, which is managed by an investment firm, to invest in early-stage businesses that have a good chance of growing and being highly profitable.

SPECIALIZED GRANTS AND LOANS

Find out whether there are specialized grants and loans available to help you with your small business. Go to http://www.grants.gov to locate federal grants or try http://www.sba.gov/about-sba-services/7631 (the Business Loans and Grants Search Tool).

MOVING FORWARD AS AN ENTREPRENEUR

As you can see, there is plenty of work involved in starting a new green business. There is also plenty of opportunity and reward for women who are eager to protect the environment, take on new challenges, and enhance their financial situation. New entrepreneurs are setting up shop every day, and the opportunities in the green economy continue to grow.

SELECTING AN Entrepreneurship Program

Look for a program with the following:84

- Interactive sessions that allow for dialogue and clarification
- A case approach that fosters sharing experiences and developing analytic and problem-solving skills
- A strong focus on personal development
- Experiential learning (mentoring, <u>apprenticeship</u>)
- Formal support mechanisms such as mentoring, networking, or counseling (opportunities for networking are especially important)
- Women teachers or speakers
- Collaboration or partnerships with other organizations or providers

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ADDITIONAL RESOURCES

You may find these resources helpful in planning for a green career. Web links can change, so you may need to do Internet searches to find the latest information.

SMALL BUSINESS RESOURCES

GOVERNMENT RESOURCES

- Business.gov. Business.gov is the U.S. government's official website for small businesses.
 It provides information and resources on complying with laws and regulations, and government programs and services to help start, expand, and run a small business (http://business.gov). The site offers information on starting a green business (http://www.sba.gov/content/starting-green-business).
- U.S. Department of Commerce. Commerce provides products and services to support Americans and American companies, including census data, patent and trademark protection for inventors and businesses, and business resources. http://www.commerce.gov
 - Economic Development Administration (EDA). EDA provides information and resources for economic development and links to state economic development agencies. http://www.eda.gov/Resources/StateLinks.xml
 - U.S. Patent and Trademark Office (USPTO). USPTO provides information on how to obtain a patent or trademark and resources about intellectual property law. http://www.uspto.gov
- U.S. Department of Labor, Office of Disability Employment Policy (ODEP). ODEP offers START-UP/USA (Self-Employment Technical Assistance, Resources, and Training). http://www.start-up-usa.biz
- U.S. Small Business Administration (SBA). SBA offers programs, resources, and training for women entrepreneurs. SBA also offers close to 30 free online courses to help you start and grow your business. http://www.sba.gov/training
 - SCORE "Counselors to America's Small Business." SCORE, an SBA partner, offers
 free and confidential small business advice and training for entrepreneurs online and
 in-person at offices nationwide. http://www.SCORE.org
 - Small Business Development Centers (SBDCs). SBDCs provide resources for new and current small business owners.
 http://www.sba.gov/about-sba-services/199
 - Women's Business Centers. A national network of Women's Business Centers
 provides business training, counseling, and other resources to help women
 start and grow successful businesses.
 http://www.sba.gov/aboutsba/sbaprograms/onlinewbc/index.html

Non-Government Resources

- Collegiate Entrepreneurs' Organization (CEO). CEO provides resources for college students with entrepreneurial ambitions. http://www.c-e-o.org
- Entrepreneurship.org. This is a public-private partnership that formed a free, online resource designed to help build entrepreneurial economies and offers an array of content and resources to assist entrepreneurs. http://www.entrepreneurship.org

- National Association for the Self-Employed (NASE). NASE offers a resource center for self-employed individuals and micro-businesses. http://www.nase.org
- National Association of Women Business Owners (NAWBO). NAWBO offers resources for growing a business. http://nawbo.org/section_29.cfm
- National Business Incubation Association (NBIA). NBIA offers information and advocacy for incubator programs for new enterprises. http://www.nbia.org
- National Federation of Independent Business (NFIB). NFIB is an advocacy group with resources for small businesses. http://www.nfib.com
- National Small Business Association (NSBA). NSBA is an advocacy association for small businesses. http://www.nsba.biz
- U.S. Chamber of Commerce. U.S. Chamber of Commerce is the world's largest business federation, representing the interests of businesses as well as offering links to state and local chambers and industry associations. http://www.uschamber.com/chambers/directory/default

FUNDING RESOURCES

GOVERNMENT RESOURCES

- U.S. Department of Agriculture (USDA), National Agricultural Library (NAL). USDA published the fact sheet *Sustainable Agriculture Research Funding Resources* (March 2007) that lists U.S. government and non-government entities that provide funding for research activities related to sustainable agriculture. http://www.nal.usda.gov/afsic/pubs/agnic/susagfunding.shtml
- U.S. Department of Labor (DOL), Employment and Training Administration (ETA). ETA's Self-Employment Assistance program is a voluntary program states may offer for dislocated workers. http://workforcesecurity.doleta.gov/unemploy/self.asp
- U.S. Small Business Administration (SBA), Office of Technology. SBA provides information about the Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs. http://www.sba.gov/aboutsba/sbaprograms/sbir/index.html. The following federal agencies award SBIR and STTR grants and contracts:
 - National Aeronautics and Space Administration, SBIR and STTR Program (contracts).
 http://sbir.gsfc.nasa.gov/SBIR/SBIR.html?cm_sp=ExternalLink-_-Federal-_-NASA
 - National Science Foundation, Directorate for Engineering.
 http://www.nsf.gov/eng/iip/sbir/?cm_sp=ExternalLink-_-Federal-_-NSF
 - U.S. Department of Agriculture (USDA), National Institute of Food and Agriculture (grants).
 http://www.csrees.usda.gov/fo/sbir.cfm
 - U.S. Department of Commerce, National Institute of Standards and Technology, SBIR Program (contracts). http://www.nist.gov/tpo/sbir/index.cfm
 - U.S. Department of Commerce, National Oceanic and Atmospheric Administration, Office of Research and Technology Applications (contracts). http://www.oar.noaa.gov/orta/
 - U.S. Department of Defense, SBIR and STTR Program (contracts).
 http://www.acq.osd.mil/osbp/sbir/?cm_sp=ExternalLink-_-Federal-_-DOD
 - U.S. Department of Education, SBIR Program (grants). http://www.ed.gov/programs/sbir/index.html?cm_sp=ExternalLink-_-Federal-_-Education

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- U.S. Department of Energy, Office of Science (SBIR and STTR grants).
 http://www.science.energy.gov/sbir
- U.S. Department of Health and Human Services, Office of Extramural Research, National Institutes of Health (grants and contracts).
 http://grants.nih.gov/grants/funding/sbir.htm?cm_sp=ExternalLink-_-Federal-_-HHS
- U.S. Department of Transportation, Research and Innovative Technology Administration, Volpe National Transportation Systems Center (contracts). http://www.volpe.dot.gov/sbir/?cm_sp=ExternalLink-_-Federal-_-DOT
- U.S. Environmental Protection Agency (EPA), National Center for Environmental Research (see EPA loan programs for green businesses) (contracts). http://epa.gov/ncer/sbir/?cm_sp=ExternalLink-_-Federal-_-EPA

Non-Government Resources

- ATTRA National Sustainable Agriculture Information Service. ATTRA's publication Federal Conservation Resources for Sustainable Farming and Ranching (updated 2010) offers an overview of major federal conservation programs that provide resources for farmers and ranchers to enhance and maintain sustainable farming and ranching practices. https://attra.ncat.org/attra-pub/viewhtml.php?id=280
- Small Business Environmental Home Page. The Home Page serves as a "one stop shop" for small businesses and assistance providers who seek information on a wide range of environmental topics. It provides a list of federal and nonprofit financial assistance programs. http://www.smallbiz-enviroweb.org/Resources/funding/fedprograms.aspx

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End Notes

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WOMEN SUCCEEDING IN GREEN JOBS

Green careers are the careers of the 21st century. Every day, more women are choosing to go green in their careers and are finding satisfying jobs that will enable them to provide for themselves and their families. They are making the move for a variety of reasons and taking advantage of green career opportunities in every part of the country. In this chapter, profiles of a diverse set of women who are working and succeeding in a variety of green careers are presented. Read their stories, and then begin the work of creating your own!

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PROFILES

CLAUDIA MLADOSICH

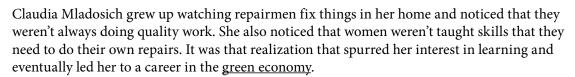
Occupation: Small Firms Energy Auditor, Association for

Energy Affordability

Location: South Bronx, New York

Education: Attended community college; Building

Performance Institute certification



Claudia is now a certified small firms energy auditor for the Association for Energy Affordability, a nonprofit training and technical services organization that offers weatherization services to low- and moderate-income families and communities. She performs energy inspections on homes and other buildings in the South Bronx. She examines their walls, ceilings, doors, foundations, roofs, and chimneys looking for points of energy loss. "I like being able to help people on the nuts and bolts level," she said. "It's like building science. You are the scientist and you're not just looking at it like everyone else."

Claudia's career path took many turns. She had previous experience working on homes and in information technology. She worked in the <u>solar energy</u> field for a while, but as the mother of two children, she found that the hours didn't allow her enough time with her family.

Her next step was to start looking into green careers more deeply. She did a lot of Internet research, read extensively about the fields in which she was interested, and took classes at the local community college, where she became Building Performance Institute (BPI) certified.

Sheer determination helped her land her current position. "I knew I wanted to work here because they have a lab for building controls for remote sensing projects. I knew I wouldn't get that experience at any other company," Claudia noted. "I called every day for two months."

Claudia believes that there are opportunities for other women interested in green careers and now is a good time to get involved. As you begin planning for a green career, do your research first, she advised. "Read articles and look into the aspects of the job that you're interested in. Determine the education you need and take action," she said. She is always looking for opportunities to advance in her own career by taking more classes in other green areas and seeking new responsibilities on the job. "To succeed, I need to educate myself continually. I know I have a lot of experience, but I would like to get a degree someday.

"As the field grows, you'll have more opportunities for different types of work. So stick your toes in the water. Don't limit yourself — do a little bit of dreaming," she said. "This is a really fun time to be in the field. Everyone is excited, and, in the next five years, it will be a big deal."



DONELE WILKINS

Occupation: Former Executive Director, Detroiters Working for

Environmental Justice

Location: Detroit, Michigan

Education: Attended college; seminars, training, and certification programs

Donele Wilkins takes satisfaction in helping make the city of Detroit cleaner and healthier — and in putting people to work. She believes everyone has a right to clean air, and every child the right to a playground free from pollution.

Donele is the founder and former executive director of Detroiters Working for Environmental Justice (DWEJ), a nonprofit organization that has been working since 1994 to empower individuals and groups to address the city's environmental concerns.

"I like to say I'm a born advocate," Donele said. "I spent a great deal of my early professional life working to ensure that workers were healthy and safe on the job. I'm very motivated by the need to clean up our community environmentally, and those transferrable skills have been really helpful."

For Donele, the inspiration to create an organization to fight for environmental justice came in 1991 at the first People of Color Environmental Summit in Washington, D.C. As she listened, she became acutely aware of the "environmental destruction" taking place in communities across the country.

Since its founding, DWEJ has grown from an all-volunteer group to an organization with 14 employees. It has advocated for the cleanup of contaminated land and against illegal dumping. It has trained thousands of citizens in community hazard awareness and organized Youth on Patrol Against Pollution.

Donele is especially excited about a 16-week jobs training program she launched in 2007 to prepare people for jobs in the green economy. The project focuses on the hard-to-employ and the chronically unemployed. It has led to jobs paying an average of \$14.50 an hour with benefits. The placement rate is 90 percent. "Once our training is complete, [participants] are <u>licensed</u> and certified in a variety of areas that will help them become competitive in the job market," she noted. In one case, an employer hired half the class even before they graduated.

Donele acknowledges that her organization's success hasn't come easily. Raising money was a challenge, and she had other jobs while she was getting it started. She works long hours, and as a single mother when her children were growing up, she struggled to balance family and professional obligations. Her sisters and her mother helped with child care.

But over time, DWEJ has survived, prospered, and expanded. Recently, Donele received approval from the state of Michigan to create the Institute for Innovative Industries, a for-profit school that will expand her capacity to provide education and training. "Take the risk that's out there, and believe that there is an opportunity for you. I can't imagine a better time," she said. "I have to think this is like the onset of the technology era. We have to find answers and solutions to these problems, and there will be opportunity for businesses to take off."

Wilkins believes that with public attention focusing on issues such as global warming and <u>climate change</u>, the timing is perfect for other women to join the green economy.



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TARA WEBB

Occupation: Apprentice Inside Electrician

Location: Portland, Oregon

Education: Attended college; enrolled in apprentice training

At age 27, Tara Webb has installed solar panels in the largest project in the Pacific Northwest. She's climbed 300-foot towers to wire windmills. She's working hard and making good money, and she is excited about her life and her future.

Growing up, Tara said, it never occurred to her to consider a career in the building trades. "The idea of a female in the trades. … In high school, we were never told about that. They never told you it was a possibility," she recalled. Tara, who lives in Portland, Oregon, is an apprentice inside electrician who already has substantial electrical installation work experience in the growing renewable energy industry. She's earning more money than she did while working in a loan office, managing stores, or as an assistant bar manager, and she has good benefits as well.

Tara attended college for a couple of years, while holding a variety of jobs, before moving to Oregon. Then one day, when she was taking a bus to work at a bakery, she saw a sign advertising Oregon Tradeswomen, a nonprofit organization that helps women enter the trades. Before long, she signed up for a seven-week pre-apprenticeship training program and earned a certification that helped her land a job as an electric materials handler, which involved moving materials and ordering supplies. After a year in that job, in 2007 she entered a highly competitive International Brotherhood of Electrical Workers (IBEW) Local 48 Inside Electrician apprenticeship program, which takes five years to complete.

Her training and work experience has been broad, but she has especially enjoyed work in green-related fields, such as solar and wind. She went to work on a large-scale construction project to build 70 windmills. About 100 people were on the job at its peak. She was the only woman, and she didn't get a chance to work on the towers until she filled in for a worker who had to attend to family matters. "It was very overwhelming at first, and in the beginning, they weren't too sure about me. Being a female, they weren't sure if I was going to be able to do some of the work and climb the towers," she stated. "I ended up just kicking butt. They said, 'You know what, you are doing so well, we are going to keep you. That other guy, he's not doing it anymore."

Tara said that after she completes her apprenticeship, she hopes to specialize in green-related work. "When I tell <u>journeymen</u> who have been in this trade for 15 or 20 years that I have had this much renewable energy experience, they are blown away," she noted. "They say they would love to have that." Tara said she believes strongly in helping to protect the environment. "It's where my heart is. We are surrounded by energy, everywhere we look, everywhere we go. With the demands on the planet increasing, we need to start supplementing our lives with something that's not limited, oil-based or otherwise."

Tara said the trades open up great opportunities for women. "It's going to be a wonderful career for anybody who has the desire and commitment and capability to just go after something," she remarked. "If you enjoy using your hands, if you enjoy using your mind, the trades are a wonderful place to be."

NATALYA CALLEJA

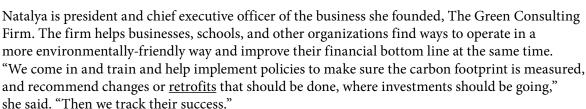
Occupation: President and Chief Executive Officer, The Green Consulting Firm

Location: Tampa, Florida

Education: Bachelor's and master's degrees in business administration;

green classes and certifications

Natalya Calleja combined her experience and education in business with new environmental skills and credentials to launch a career as a certified green consultant and carbon accountant.



When working with schools, for instance, Natalya typically starts by creating a four-person green committee to help develop a plan and educate and train staff, parents, and students. The team then mobilizes to inspire and bring about change. The changes can include such things as regulating classroom temperatures, engaging students in recycling, and learning to become a "zero-waste school." Additional actions can include composting, discontinuing the use of Styrofoam products in cafeterias, and using less paper.

Natalya, who is married and has two children, has degrees in business administration. She had been working in marketing in the corporate world for more than a decade before her career change. She had long had an interest in environmentalism, and this interest grew along with her family. "It really becomes a concern when you have children," she said. "You're not only worrying about [getting them to] college, you are worrying about the environment that they are going to have 20 years from today."

Yet deciding on a green career was just the beginning. Natalya knew she needed new green expertise to complement her business and marketing education and experience. She went to the Internet to research the types of credentials she would need and where to get them. She found classes available at the University of Florida and Miami Dade College, and she gained certifications through Miami Dade, the Green Business League, and other organizations. Since she was retraining herself while still holding down a job and raising a family, she found it most convenient to take vocational and community college classes online. Her coursework included areas such as carbon accounting and risk management. "Honestly, the retraining is continuous because the green technology is constantly evolving," she noted.

Natalya said that green career opportunities are growing as businesses seek ways to become more profitable by adopting <u>sustainable</u> business practices. That has created demand for energy auditors, carbon accountants, and renewable energy experts. Some companies turn to consultants like herself, while others hire their own sustainability officers to oversee their efforts to go green.

"Women should definitely be considering this type of career. It's a great career. It's satisfying," she stated. "People in this field are passionate, they are open to networking, and they support and help each other. This is by far the best of anything I've done in my life."



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SUSAN SOUTHARD

Occupation: Soil Scientist, U.S. Department of Agriculture

Location: Davis, California

Education: Bachelor's degree in soil science;

graduate-level coursework

Susan Southard is passionate about soil. For more than 30 years, she's worked in the field, the lab, and the office quantifying, analyzing, and interpreting soil types. Currently, she's playing a key role in an inventory of the soils of all the National Park Service properties. "When you think about it, food comes from soil, our houses sit on soil, we walk on soil, and from the National Park perspective, when you go to a park, the park landscapes you enjoy are covered with different soils," she said. "Soil's interconnectivity with everything that we do and everything that is alive is inspiring to me."

Susan, who lives and works in Davis, California, says her career as a soil scientist has allowed her to follow her passion, work actively outdoors, make a good living, and make a difference in protecting the environment. She recommends it as a great green career for other women to pursue. Soil scientists can find job opportunities, both in the private and public sectors, providing information critical to making good land-use decisions. Susan also noted that work schedules in the federal government are more flexible than when she started her career, allowing women to balance their careers and family needs.

As a student at the University of Rhode Island, Susan knew she wanted to study science, but wasn't sure which science field to pursue. After an introductory soil science class, she had the answer — studying soil combined biology, chemistry, geology, and other sciences. "Soil science is a very applied science that made sense to me," she noted. "Since I also had a passion for outdoor activity, it was just a natural fit." She earned a bachelor's degree in soil science and was on her way.

Susan has conducted soil field work in Utah, North Carolina, California, and other states. She has taken graduate-level classes to update her knowledge and skills. Now, she is the U.S. Department of Agriculture's Natural Resources Conservation Service's liaison with the National Park Service. Her role is to help facilitate the soil mapping of 272 national parks, monuments, and historic sites, and to help park managers use the soil data successfully. These soil surveys provide for better management of park roads, trails, and camping sites and help protect plant and animal species. The surveys also provide data about the amount of carbon stored in all the different soils, important information in the study of climate change.

"I've always been interested in conservation, whether we talk about conserving energy or conserving soil and water," stated Susan, who is married to a soil professor and has two grown daughters. "My whole focus and career have been based on understanding soils and helping others understand that we need to conserve them, preserve them, and use them sustainably."

Susan thinks this is a great time for women to enter the field because many veteran soil scientists will be retiring in the next several years. "There is going to be a definite need for people who are interested in soils, and definitely the opportunities for women are there. And if a woman doesn't necessarily like to work outside all the time, she probably won't have to, as the job duties have widened and have a greater diversity of activities."

Her advice to women considering green jobs: Follow your passion. "If your job is your passion, you're never going to be dissatisfied with it," she said.



LEAH CARTER

Occupation: Chief Executive Officer, Better for Babies

Location: Carrollton, Georgia

Education: Bachelor's degree in philosophy; graduate work

in philosophy

As a young mother studying in Wales, Leah Carter used cloth diapers for her infant son and sometimes shipped Scottish-brand diapers back to the United States for her friends. Today, she runs Better for Babies, a small business that manufactures organic cloth diapers and sells them over the Internet and in 200 stores around the country.

Leah runs her green business from home, which has been especially important to her because her husband has a degenerative neurological illness. "The reason to start the business was so that I had the opportunity to provide income while being home with him and with our son, because my husband needed care at home in the day, and what mother doesn't want to spend more time with her newborn?" she said.

"We are very passionate about environmental issues, and keeping natural fibers against our baby's skin," Leah noted. "It was a very good match with our passion, our lifestyle, and our need for an alternative, flexible source of income."

The company began small. As it grew, she decided to open up a manufacturing facility in town, located just a few minutes from her home, "in order to get more daily control over the production and quality and what we were making and when."

She began attending meetings at the Burson Center, a business incubator in Carrollton, and she found a <u>mentor</u> from Georgia Tech through a business-to-business program funded by the state to help small entrepreneurial businesses. He met with her almost weekly for the first year or so, helping her to develop business strategies, find a location for her manufacturing facility, and identify useful classes in manufacturing.

"I received a lot of guidance in making business decisions to manage growth in a smart and efficient way," Leah said. The mentor helped steer her to the Georgia Green Loans Program when she was facing challenges with the timing of payments to suppliers and from customers.

She networks by attending business meetings locally and through a trade association called the Real Diaper Industry Association she joined a couple of years ago. In September 2009, she was elected president. She uses Twitter and Facebook as social networking tools to build her customer base.

Leah acknowledges it's a constant challenge to balance business and family, but she enjoys being a green entrepreneur. "I like that there is always some aspect of the business that I can work on to improve."



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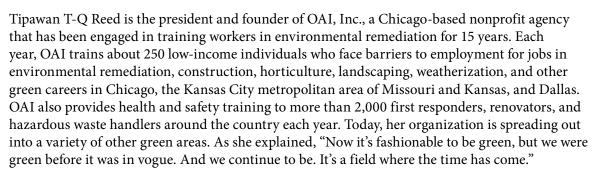
TIPAWAN T-Q REED

Occupation: President, OAI, Inc. Location: Chicago, Illinois

Education: Bachelor's degree in cultural anthropology;

master's degree in cultural/linguistic

anthropology; advanced certification in secondary and adult education



Tipawan, who was born in Thailand to Vietnamese parents, began her career teaching English as a second language and writing grant proposals. She quickly learned she was successful in grant-writing, a skill she has found vital in growing her agency and expanding into green areas. She worked for the Illinois Department of Education and a consortium of Chicago-area school districts before launching OAI 33 years ago. She was honored on Earth Day 2010 with the Chicago Foundation for Women's Breaking Barriers Award for her work in preparing workers for green jobs.

OAI began as an agency offering training and education services to Indochinese refugees, but Tipawan found that the model was applicable to other groups as well. When federal funding dried up, she retooled the organization to serve other disadvantaged populations who reside in environmental justice communities. Her organization took on a green tint in 1995, when she applied for and received a grant from the National Institute of Environmental Health Sciences to provide environmental remediation training to underserved minority populations. "It wasn't called 'green,' but we were working with people and getting them interested in environmental jobs, jobs that have to do with environmental remediation, with soil remediation, with green landscaping, etc.," she said.

In recent years, OAI has partnered with the city of Chicago to operate the Chicago Greencorps, which provides both work experience and training opportunities in areas such as brownfield cleanup, lead and asbestos removal, horticulture, landscaping, weatherization, and recycling. Tipawan reports that Greencorps especially targets ex-offenders, who have some of the highest barriers to employment. She noted that about 70 percent are successful in finding jobs in their fields. More recently, OAI has collaborated with Cob Connection to provide paid work experience and job training in urban agriculture.

Tipawan says that the growing green economy provides a wide range of opportunities for good-paying jobs that enable women to take care of themselves and their families. She encourages women to consider nontraditional jobs such as environmental remediation, which requires physical labor but provides entry into unions, excellent wages, and benefits. "I'm proud that OAI has become a national green job training leader and policy advocate. And I encourage women to think broadly about all the green career opportunities that are out there," Tipawan states. "Green jobs are providing people with good wages and, at the same time, helping them learn to protect the environment."

FINDING YOUR OWN CAREER PATH

As these women have experienced, a green career can be rewarding in many different ways and can start from many different entry points. Words like "inspiring," "passionate," and "exciting" run through their descriptions of their work. With dedication and effort, you too can find a career path that is equally interesting and fulfilling. Use these women's examples and this guide to help you discover, plan, prepare, and succeed in your own green career!

You can get help charting your own green career path through the Internet, networking, college counselors, workforce development agencies, and by using the worksheets included in Chapter 9, "Planning Your Green Career: Tools and Worksheets."

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OVERCOMING CHALLENGES ON YOUR CAREER PATH

Every job comes with a different set of challenges. The key to successfully responding to any challenge is recognizing it and developing a plan of action. In this chapter, possible challenges for women in green jobs are explored. You may not experience any of these challenges in your career, or you may experience one or more. For instance, balancing family and work can be a challenge, especially for those women who struggle to find reliable and affordable child care arrangements, particularly if they work a job with varying hours or locations.

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This chapter provides information that will enable you to recognize potential challenges and adopt strategies to resolve them if they occur. Be sure to check the "Additional Resources" section at the end of the chapter for more information and tools. And remember, the benefits of green jobs for women far outweigh the challenges.

READINESS FOR WORK

One initial challenge a woman might face in entering a green career is having those basic skills that are required to enter employment. Sometimes the missing skill set results from an unsuccessful track record in high school or secondary education or because the training for a job hasn't been made available, accessible, or affordable for women. Still, it is possible to overcome a lack of training and education. The ways to do so may include going back to school and/or entering a remedial or skills development program, such as pre-apprenticeship training. Here are some additional suggestions for making sure you are ready to work:

STRATEGIES

- Read job postings and talk with those in the field about what basic skills are required in the job you want. You can also use mySkills myFuture (http://myskillsmyfuture.org) to learn how your current skills match the skills needed in other occupations. Will you need to boost your math skills? Do you need to improve your speaking ability? Professional women's organizations may also include women in your field of interest who can give you guidance.
- Take assessments of your skills in math, reading, and writing. A good place to start is your local <u>One-Stop Career Center</u> or the online tool http://www.careeronestop.org.
- Check with your area's training providers to learn about their courses and programs. Refer to Chapter 4, "Educating Yourself for a Green Career," for ways to find training and education.

Jill Poklemba of STRIVE New York, an agency that offers job training to the chronically unemployed, said, "Women who are in the program face a struggle of being a woman in a male-dominated environment. Sometimes they are intimidated by their own uncertainty about whether they can handle the physical demands of the construction industry. We continue to look for new methods to recruit and retain women to successfully place them in green jobs, and we look forward to implementing our new Women STRIVE for Green program as part of our U.S. Department of Labor Pathways Out of Poverty grant, in partnership with Dress for Success Worldwide."

DISCRIMINATION IN THE WORKPLACE

Women have gained greater access to good-paying, rewarding careers in a variety of fields, but the reality is that discrimination is sometimes present in the workplace, limiting a woman's ability to progress in her career. By going for a green job that may be nontraditional for women, you should be aware of the forms such discrimination might take and the strategies you can use to overcome this challenge.

Applicants to, and employees of, most private employers, state and local governments, educational institutions, employment agencies, and labor organizations are protected under federal law from discrimination. Note that these laws don't apply to all employers, and there are many additional workplace laws and rights not listed below.

• Race, Color, Religion, Sex, National Origin. Title VII of the Civil Rights Act of 1964, as amended, protects applicants and employees from discrimination in hiring, promotion, discharge, pay, fringe benefits, job training, classification, referral, and other aspects of employment on the basis of race, color, religion, sex, or national origin. Religious discrimination includes failing to reasonably accommodate an employee's religious practices where the accommodation doesn't impose undue hardship.

Discrimination on the basis of pregnancy, childbirth, or related medical conditions constitutes unlawful sex discrimination under Title VII. Women who are pregnant or affected by pregnancy-related conditions must be treated in the same manner as other applicants or employees with similar abilities or limitations.

In addition to sex discrimination prohibited by Title VII of the Civil Rights Act, as amended, the Equal Pay Act of 1963, as amended, prohibits sex discrimination in the payment of wages to women and men performing substantially equal work, in jobs that require equal skill, effort, and responsibility, under similar working conditions, in the same establishment.

- O Disability. Titles I and V of the Americans with Disabilities Act of 1990, as amended, protect qualified individuals from discrimination on the basis of disability in hiring, promotion, discharge, pay, fringe benefits, job training, classification, referral, and other aspects of employment. Disability discrimination includes not making reasonable accommodation to the known physical or mental limitations of an otherwise qualified individual with a disability who is an applicant or employee, barring undue hardship. The Americans with Disabilities Act Amendments Act of 2008 expanded the definition of disability.
- Age. The Age Discrimination in Employment Act of 1967, as amended, protects applicants and employees 40 years of age or older from discrimination based on age in hiring, promotion, discharge, pay, fringe benefits, job training, classification, referral, and other aspects of employment.
- Genetics. Title II of the Genetic Information Nondiscrimination Act of 2008 (GINA) prohibits the use of genetic information in making employment decisions, makes it generally unlawful for an employer to get genetic information, and requires employers that have genetic information about applicants or employees to keep it confidential and in a separate medical file. GINA protects applicants and employees from discrimination in any aspect of work (hiring, promotion, discharge, pay, fringe benefits, job training, classification, referral, etc.), harassment, or retaliation based on genetic information. An employer may never use genetic information to make an employment decision because genetic information doesn't tell the employer anything about someone's current ability to work.
- **Retaliation.** Federal anti-discrimination laws prohibit covered employers from retaliating against a person who files a charge of discrimination, participates in a discrimination proceeding, or otherwise opposes an unlawful employment practice.
- Harassment. Harassment is a violation of federal anti-discrimination law when it is so frequent or severe that it creates a hostile or offensive work environment or when it results in an adverse employment decision (such as the victim being fired or demoted). Harassment doesn't have to be of a sexual nature. It can include offensive remarks about a person's sex, race, color, religion, national origin, age (40 or older), disability, or genetic information all categories protected by discrimination law as described above. For example, it is illegal to harass a woman by making offensive comments about women in general. Both the victim and the harasser can be either women or men, and the victim and harasser can be the same sex. The harasser can be the victim's supervisor, a supervisor in another area, a co-worker, or someone who isn't an employee of the victim's employer, such as a client or customer.

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STRATEGIES

Here are some suggested steps for addressing discrimination:

- If you are asked inappropriate questions during an interview, such as whether you have children, focus the interview back on your skills and experience. You can address the employer's concern that you will be available to work the hours needed without talking about your personal life.⁸⁷
- Unfortunately, some employers are ignorant of offending behaviors or practices. Attempt to educate them.
- If you believe you have been discriminated against by a private sector or state or local government employer, contact the U.S. Equal Employment Opportunity Commission (EEOC) at 800-669-4000 (toll-free) or 800-669-6820 (toll-free TTY). EEOC field office and charge filing information is available at http://www.eeoc.gov.
- If you believe you have been discriminated against by a federal contractor or subcontractor, contact the U.S. Department of Labor's Office of Federal Contract Compliance Programs (OFCCP) at 800-397-6251 (toll-free), 202-693-1337 (TTY), or OFCCP-Public@dol.gov. Information about filing a complaint is available at http://www.dol.gov/ofccp/regs/compliance/pdf/pdfstart.htm.
- If you believe you have been discriminated against by a program or activity financed or conducted by the Department of Labor, contact the department's Civil Rights Center (CRC) at 202-693-6500, 202-693-6516 (TTY), or CivilRightsCenter@dol.gov. More information is available at http://www.dol.gov/oasam/programs/crc.
- There are strict time limits for filing charges of employment discrimination. You should contact the EEOC, OFCCP, or CRC promptly when discrimination is suspected.

TAKING ACTION TO STOP HARASSMENT

If you are harassed:

- Keep a written record describing each incident, including what happened, where, on what date, and who was present.
- Report the incident to a supervisor or another trusted member of management.
- Inform the harasser directly that the conduct is unwelcome and must stop, unless you fear it will jeopardize your physical safety or job.
- Use any employer complaint mechanism or grievance system available.
- Contact the appropriate government agency about the possibility of filing a complaint.
- Reach out to community-based organizations for support.

INEQUAL PAY

The "gender wage gap" is typically measured as the ratio of women's earnings to men's earnings. Even when differences in earnings, such as those due to education, experience, industry, and occupation, are accounted for, studies show a remaining earnings gap that cannot be explained. For full-time, year-round wage and salary workers in 2009, the <u>median</u> weekly earnings of all women were \$657 — 80 percent of men's \$819.88 African American women earned only 69 percent, and Latinas 60 percent, of the median weekly earnings of white males.89

STRATEGIES

Here are some strategies for preventing pay inequality:

- Learn as much as you can about the average pay rate for your occupation, geographic area, and career level. You can find national and state wage information for more than 800 occupations using the salary tool on CareerOneStop.org at http://www.careeronestop.org/SalariesBenefits/Sal_default.aspx.
- Make sure your bosses know your ambitions and your capabilities. Negotiate for a fair wage based on your experience, skills, and seniority.

Working in a male-dominated field such as construction can sometimes be intimidating. Marni Majorelle, the Managing Principal of the landscape design company Alive Structures, has a few words of advice: "It's really good to know your work very thoroughly and technically, [especially] if you're in a job that involves construction. You will be talking to a lot of guys, and if you don't know what you're talking about, they will just dismiss you. Giving off a real sense of confidence and convincing other people that you know what you're doing is crucial."

SUPPORT NETWORKS

Some occupations — like engineering, architecture, and forestry — still have few women, and you may feel a sense of isolation or of not "fitting in" at the worksite. Men may be uncomfortable having women on the job because they feel that women are erasing traditionally accepted gender roles simply by working in a nontraditional occupation. 90 Isolation often decreases as co-workers become familiar with each other and as more women join a particular workplace.

Creating awareness and acceptance is important if women are to enter and advance in the green workforce. Research finds that the relationship between work and family can have an important effect on job satisfaction. Still, some women may find that their family and friends aren't as supportive as they could be about their career choices, especially if they are entering occupations that aren't traditional for women. While times have changed, there are still some strong beliefs out there about what jobs are appropriate for women and what jobs are appropriate for men.

STRATEGIES

Here are some strategies for helping you to give yourself a strong support network:

- Stay focused on why you have chosen to enter a green job, start your own enterprise, or expand your skill set through training or education. Your focus may begin to alleviate the doubts of those around you.
- Use your education and training classes as an opportunity to build friendships and a support system.
- Anticipate the questions your family and friends may have about your career choice. Learn more about green jobs, related training, and career ladders so you can calm the concerns of your family and friends about your chosen occupation or career path. Try to encourage friends and family to join you in activities such as selecting your tools and supplies or attending informational events.
- Encourage your training/education provider and/or employer to invite women with nontraditional jobs to share their experiences at conferences or in classes. Workers/students should have an opportunity to ask questions and explore issues and solutions that they might not have considered before.
- O Look for mentoring programs. Mentoring can be a one-on-one relationship between a student and an instructor, or a newly hired employee and an experienced worker in the field, or it can take shape as a group activity.⁹² Mentors typically guide <u>protégés</u> through issues related to career advancement, worklife balance, and/or problems on the job. It helps to talk to someone who has experienced what you're

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going through. Professional women's organizations, such as the U.S. Women's Chamber of Commerce, the Association for Women in Science, Women in Technology International, and Women of Wind Energy, may have women in your field of interest who are willing to serve as mentors. Your employer and/or training provider may have a program to pair women with mentors. You might also approach a woman in your workplace or a similar workplace and ask her to assist you as a mentor.

- Give yourself permission to succeed or fail as you explore interesting occupation and job options.
- Make time for important get-togethers with clients and both male and female peers. Men are more likely than women to network and build connections with their co-workers or other professionals outside the office.⁹³ These connections can be very helpful in finding jobs and moving up in your career.

BALANCING WORK, FAMILY, AND OTHER RESPONSIBILITIES

A woman worker might have responsibility for children at home, ailing parents, household finances, and a variety of other obligations that need to be balanced with her work responsibilities. For many women, this is a challenge that is all too familiar. One-third of women believe that the difficulty of combining work and family is their biggest work-related problem. ⁹⁴ Transportation, child or elder care, and good health are just a few of the components that allow, or interfere with, a woman's ability to make a successful career while maintaining a strong personal life.

TRANSPORTATION

For women employed outside the home, getting to and from work is an obvious and important dimension of employment. The lack of a reliable private vehicle, inadequate public transit routes to your job site, inconveniently-located child care facilities, or a breakdown in transportation plans can impact your ability to maintain a job. Adding to the burden can be getting to and from training programs, medical appointments, agency appointments, and children's activities. For those without easy access to transportation and/or with long commutes, this aspect of employment becomes increasingly important to resolve.

STRATEGIES

The following are some ways to ensure that you have good transportation in place:

- There are many programs available that help low-income families purchase cars for the purpose of retaining employment. Some nonprofit organizations take donated cars and sell them for reduced prices. They are a great place for working moms to find cars. Be sure to have a mechanic inspect any used vehicle before you buy it.
- Public transportation, like city buses or subways, is a good option when you don't have your own car. Local nonprofit organizations, faith-based organizations, and One-Stop Career Centers may provide transportation assistance, such as bus passes for getting to training or a job. Job training programs and employers may also offer transportation subsidies.
- Arrange to carpool with someone going to the same area on a similar schedule.

• If it is possible for your type of job, ask your employer about <u>telecommuting</u> (working from home) to save on travel time and expenses. Even arranging for this a day or two a week can be a big help.

Ellen Telander has been able to balance her work and family responsibilities as executive director of the Recycling Association of Minnesota. She telecommutes to her job three days a week, which allows her to spend more time with her young daughter. She negotiated the arrangement before she accepted the position. "The job was not that way, and when I went to the interview, I said, 'If you want me to work here, I have to have this,'" she explained. "You have to ask [for what you need], and you have to do it appropriately, in a way that is not offensive. If you don't ask for it, they are not going to know you want it."

CHILD/DEPENDENT/ELDER CARE

At least 11 million children under age five are in some type of child care arrangement every week while their parents work. ⁹⁵ The National Alliance for Caregiving reports that more than half of those caring for aging parents are women. ⁹⁶ So, many women will face the need for help in caring for their children or other dependents while working or going to training. Some green jobs can have work schedules and locations that change often, which can create a greater challenge.

Quality child and dependent care can also be expensive. According to a survey conducted by the National Association of Child Care Resource and Referral Agencies, the average annual cost of full-time child care for an infant in a center in 2009 ranged from more than \$4,550 in Mississippi to more than \$18,750 in Massachusetts. You may have to ensure care to aging parents or other sick relatives, which can also add up. According to a national study from 2010, <u>licensed</u> home health aides can cost between \$12 and \$38 per hour, and the median daily rate for adult day care is \$60.98

STRATEGIES

Here are some ideas for planning and obtaining a child/dependent/elder care situation that works for you and your family:

- Determine when you will need child or elder care given your school and/or work schedule. The hours offered by the care provider will be an important consideration in your decision.
- Don't be afraid to ask your employer for accommodations that can meet your needs while still ensuring you are meeting the demands of your job. For instance, some jobs can accommodate a somewhat later start time so a caregiver can have more time in the morning to manage home demands.
- Families, friends, and neighbors are the most common source of child care for working parents in the United States. 99 Often, these individuals aren't licensed day care providers, but they may watch your child occasionally or on a regular schedule. If you choose to go this route, be sure you are comfortable with the standard of care your child will receive. Also be aware that child care subsidies aren't available for informal child care settings.
- Employers aren't required to provide child care assistance to their employees, but some do. For example, in California, a center serves families of workers at the San Francisco Airport and related businesses by offering care from 5 a.m. to midnight, seven days a week, and allows parents to create new schedules every

FINDING QUALITY CHILD CARE

Look for these signs of a good child care provider:

- O The provider is a licensed day care provider. Licensing information is available through your state. If the provider you are considering is a day care center, is it nationally accredited?
- The provider can give you references from parents.
- The day care center has qualified and screened staff, or if a private provider, he/she has training in early childhood development, cardiopulmonary resuscitation, and first aid.
- The provider has policies, payment information, daily schedules, and emergency plans readily available and shares these with you.
- The provider welcomes parents to drop in and listens to your input about your child.
- The children have structured activities as well as free play time. A variety of safe and age-appropriate toys and supplies are available to the children.
- The interactions with the children are positive: The center staff or private provider is friendly and gives all children attention, and discipline doesn't involve physical punishment.
- The food provided is nutritious. The provider willingly accommodates children with special dietary needs.
- The facility or home is clean and safe.

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month.¹⁰⁰ This center accommodates the schedules of the employees, making it easier for them to access care and reduce travel. An increasing number of businesses have found that employer-assisted child care is an effective way to attract and retain quality workers and leads to increases in productivity.¹⁰¹

- If you need help locating and paying for care for your children or other dependents, there are a number of resources that may help (see the "Additional Resources" section in this chapter). Government offices, employers, training providers, community organizations, and your family and friends are all possibilities.
 - Local women's centers may have lists of child care providers, including those that provide overnight care or extended-hour care.
 - Programs like Early Head Start and Head Start are available nationally to low-income pregnant women and children zero to five years. To locate the Head Start and Early Head Start programs serving your community, visit http://eclkc.ohs.acf.hhs.gov/hslc/HeadStartOffices.
 - To learn more about your state's child care assistance program, contact the state's child care agency. The National Child Care Information and Technical Assistance Center, a service of the Child Care Bureau, hosts a website that provides the contact information for all of the state agencies at http://nccic.acf.hhs.gov/statedata/dirs/display.cfm?title=ccdf. Note that many states have long waiting lists for assistance.
- Oconsider whether the Family and Medical Leave Act may help you balance work and caregiving responsibilities. Under the Act, covered employers must grant an eligible employee up to a total of 12 work weeks of unpaid leave during any 12-month period for the birth and care of the employee's newborn child; for placement with the employee of a son or daughter for adoption or foster care; or to care for an immediate family member (spouse, child, or parent) with a serious health condition. If you have day-to-day responsibility for caring for a child, you may be entitled to leave even if you do not have a biological or legal relationship to the child. Under the FMLA, a child is broadly defined to include a biological, adopted, or foster child, a stepchild, a legal ward, or a child of a person standing *in loco parentis*.

There are no federal laws requiring employers to provide their employees with *paid* leave, but some states have laws that provide for paid family or parental leave.

O If you pay someone to care for your child under the age of 13 or for an older dependent who is unable to care for himself or herself so that you (or your spouse if you are married) can work or look for work, you may be able to claim the Child and Dependent Care Credit when you file your taxes and get back some of the costs. The Child Tax Credit is another option. Depending on your income, you could receive up to \$1,000 per qualifying child.¹⁰² Highincome earners can receive partial or no credit depending on their income level. Check the Internal Revenue Service website (http://www.irs.gov) or contact your local tax assistance program (http://www.tax-coalition.org) for details.

MICHIGAN'S ROAD CONSTRUCTION APPRENTICESHIP READINESS PROGRAM

This state-sponsored program provides full tuition, a training stipend, transportation and child care assistance, as well as career counseling. Michigan is working to remove barriers to employment for women in this nontraditional field. For more information on this project, see http://www.michigan.gov/nwlb/0,1607,7-242-52874-210085--,00.html. Check with your state's Department of Transportation, Department of Energy, or Department of Community/ Economic Development to see if similar programs exist in your state for green careers.

HEALTH

Your health is an important factor in your job performance. An illness or injury can have a negative effect on your career, resulting in lost opportunities, and can even hurt you financially.

- O Workplace Health and Safety. In some green jobs, workplace safety is more of a concern than in others. For instance, women working on roofs installing solar panels, those servicing wind turbines, or those working to clean up hazardous materials need to be aware of and follow procedures that will keep them and their co-workers safe on the job. See the "Additional Resources" section at the end of this chapter for more information about your rights on the job and how to make sure you know how to protect yourself from dangers at your work site.
- Health Care Coverage. New federal health care legislation signed into law in spring 2010 may change the landscape of health care coverage, as some provisions around temporary high-risk insurance pools are scheduled for immediate implementation and others will take effect no later than 2014. In the interim, many employers do provide health insurance; however, if workers aren't covered through their employer, there are other options for covering you and your family, such as Medicaid, the State Children's Health Insurance Program, and the Consolidated Omnibus Budget Reconciliation Act (COBRA).

STRATEGIES

Here are some strategies for avoiding and overcoming health challenges:

- An employee assistance program (EAP) is an optional employer-provided benefit through which an employee experiencing life challenges can obtain confidential help, typically through a telephone conversation with a counselor. EAPs can help you deal with substance abuse, parenting issues, marital problems, locating child care and elder care services, and workplace stress. Some also provide help with workplace personnel issues. Check with your human resources office to see what's available to you.
- Make use of your company's wellness program to stay healthy. Some employers cover gym fees, have walking programs, or sponsor health information events and smoking cessation treatment.
- The Family and Medical Leave Act entitles you to a total of 12 work weeks of unpaid leave during any 12-month period to take medical leave when you are unable to work because of a serious health condition. Again, it may not be paid leave, but it can help you keep your job. Some employers also offer short-term disability insurance, or if you are injured at work, workers' compensation insurance to help you while you are not working.
- In times of crisis, ask if your employer will give you some flexibility in your schedule, such as allowing you to make up time missed for doctor appointments.
- When you are planning your green career, consider the workplace policies you will need access to such as flexible schedules, paid sick leave, and family leave all of which can ensure that you have the support you need to excel in the workplace. The industries that employ the most women (retail trade, accommodations, and food service) are the least likely to offer paid sick days.
- Take care of yourself! Eat right, get regular exercise, and rest when you need to.

MYTH: Some jobs are too dangerous and dirty for women.

FACT: Certain green jobs, like installing insulation, can be dirty and sometimes dangerous. However, women, like men, must compare the hazards with the benefits of taking certain jobs. Many traditionally female jobs, such as caregiving and nursing, also can be dirty. Some also have health hazards, such as computer terminal radiation and carpal tunnel syndrome. Many women don't mind getting dirty when they are paid a good wage, and with proper safety instruction, all workers can minimize the danger that they may experience on the job.

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THINGS TO REMEMBER ABOUT ACHIEVING A WORK-LIFE BALANCE

- If you are stressed or experience a problem inside or outside of work, don't hesitate to seek out support services.
- Your support needs may be different from those of other women, and that's okay.
- If at first you don't succeed in finding help with support, try, try again. Do not stop with one person or even two; you may need to ask questions of many different people to find the information or resources you are seeking.
- The more you ask the more you will know. Ask around to get the support you need to be successful on your green path.

FROM CHALLENGES TO OPPORTUNITIES

You have the opportunity to play an exciting role in the developing green economy. As more and more women enter green jobs and move along their career paths, there will be strength in numbers. There may be challenges along the way, but green jobs can offer good pay, good benefits, and rewarding careers that will far outweigh the short-term difficulties.

Ideally, you will have access to all the support you need to maximize your career potential and your quality of life. Whether it is temporary help while attending a training program, or more long-term assistance such as years of child care while you work, determine what support you require, and then be assertive in finding the resources you need. If you don't get the answer you need from one place or person, try another. As with other aspects of developing a meaningful career, being proactive and informed is key.

ADDITIONAL RESOURCES

You may find these resources helpful in planning for a green career. Web links can change, so you may need to do Internet searches to find the latest information.

CHILD CARE

GOVERNMENT RESOURCES

- U.S. Department of Health and Human Services (HHS), Administration for Children and Families (ACF). ACF is responsible for federal programs that promote the economic and social well-being of families, children, individuals, and communities. http://www.acf.hhs.gov/acf_services.html#cc
 - Early Childhood Learning and Knowledge Center, Head Start Locator (ECLKC). ECLKC provides information on local Head Start sites. http://eclkc.ohs.acf.hhs.gov/hslc/HeadStartOffices. You can reach Head Start Knowledge and Information Management Services toll-free at 866-763-6481.
 - National Child Care Information and Technical Assistance Center (NCCIC). NCCIC
 provides general information about child care as well as resources to help access child
 care. http://nccic.acf.hhs.gov

NON-GOVERNMENT RESOURCES

- ChildCareAware. ChildCareAware provides information about quality child care and resources. To access care, call 800-424-2246 or visit http://www.childcareaware.org.
- ChildCareAware Parent Network. ChildCareAware Parent Network is a virtual community designed to discuss child care issues and share resources. http://www.ccaparentnetwork.org
- National Association of Child Care Resource and Referral Agencies (NACCRRA). NACCRRA
 provides general information about child care, as well as resources to help access child care.
 http://www.naccrra.org
- National Women's Law Center (NWLC). NWLC provides state-by-state information on eligibility for child care assistance. http://www.nwlc.org/sites/default/files/pdfs/nwlcstatechildcareassistancepolicies2009.pdf

ELDER CARE

GOVERNMENT RESOURCES

U.S. Department of Health and Human Services (HHS), Administration on Aging (AOA).
 AOA's Elder Care Locator connects callers to services for older adults and their families.
 http://www.eldercare.gov

Non-Government Resources

American Federation of State, County and Municipal Employees, AFL-CIO (AFSCME).
 AFSCME has a fact sheet on elder care at http://www.afscme.org/members/education-and-trainings/education-resources/fact-sheets/eldercare and a publication titled *Eldercare*: An AFSCME Guide for Families and Unions at http://www.afscme.org/news/publications/life-management-and-health/eldercare-an-afscme-guide-for-families-and-unions.

HEALTH CARE ASSISTANCE

GOVERNMENT RESOURCES

- U.S. Department of Health and Human Services (HHS).
 - Centers for Medicare and Medicaid Services (CMS). CMS provides information on health care programs, including Medicaid and the State Children's Health Insurance Program (SCHIP), and access to local eligibility and application information. http://www.cms.hhs.gov
 - Healthcare.gov. Healthcare.gov provides information that helps Americans find insurance options, learn about prevention, compare care quality, and understand the law. http://www.healthcare.gov
- U.S. Department of Labor (DOL), Employee Benefits Security Administration (EBSA). EBSA provides information on the Consolidated Omnibus Budget Reconciliation Act (COBRA), continuation health coverage. COBRA gives workers who lose their health benefits the right to choose to continue group health benefits provided by their plan under certain circumstances. http://www.dol.gov/dol/topic/health-plans/cobra.htm

NON-GOVERNMENT RESOURCES

• Families USA. Families USA provides the names of Medicaid and State CHIP health care programs by state. http://www.familiesusa.org/issues/childrens-health/name-that-program.html

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LEGAL AID

Non-Government Resources

 LawHelp. LawHelp provides help for low-income and moderate-income people to find free legal aid programs in their communities and answers to questions about legal rights. http://www.lawhelp.org

MENTORING PROGRAMS AND SUPPORT GROUPS

NON-GOVERNMENT RESOURCES

- Association for Women in Science (AWIS). AWIS provides professional mentoring and networking resources for a variety of career choices. http://www.awis.org
- MentorNet. MentorNet provides resources for connecting with mentors in engineering, science, and mathematics. http://www.mentornet.net
- Women's Technician Club. Women's Technician Club offers online support for women working in a variety of fields. http://www.womentechworld.org

NUTRITION

GOVERNMENT RESOURCES

- U.S. Department of Agriculture (USDA), Food and Nutrition Service (FNS). FNS administers USDA's nutrition assistance programs.
 - Special Supplemental Nutrition Program for Women, Infants, and Children (WIC).
 WIC provides supplemental nutritious food, nutrition education, and related referrals.
 http://www.fns.usda.gov/wic/aboutwic
 - Supplemental Nutrition Assistance Program (SNAP). SNAP is the new name for the federal Food Stamp Program and it provides children and needy families better access to food and a more healthful diet through its food assistance programs and comprehensive nutrition education efforts.

http://www.fns.usda.gov/snap/nutrition_education/FSNE-Factsheet-2006.pdf

Non-Government Resources

- Feeding America. Feeding America provides a food bank locator. http://feedingamerica.org/foodbank-results.aspx
- Food Research and Action Center (FRAC). FRAC provides access to information about food and nutrition programs. http://frac.org
- National WIC Association (NWA). NWA provides information about the Women, Infants, and Children (WIC) program and the program locations near you. http://www.nwica.org

ONE-STOP CAREER CENTERS

GOVERNMENT RESOURCES

• U.S. Department of Labor (DOL), Employment and Training Administration (ETA). CareerOneStop, created for ETA, provides an array of online job seeker tools (http://www.careeronestop.org) and allows you to search for a One-Stop Career Center in your area (http://www.servicelocator.org).

PROFESSIONAL ()RGANIZATIONS

NON-GOVERNMENT RESOURCES

- The American Federation of Labor and Congress of Industrial Organizations (AFL-CIO), Center for Green Jobs. The AFL-CIO created the Center for Green Jobs to assist union leaders in training workers for new careers in a clean energy economy. http://www.workingforamerica.org/documents/greenjobs.asp
- Institute for Women in Trades, Technology and Science (IWITTS). IWITTS provides tools to successfully integrate women into male-dominated careers via training, publications, products, e-strategies, and research projects. http://www.iwitts.org
- National Association for Women in Construction (NAWIC). NAWIC advances the causes
 of women in construction, from tradeswomen to business owners.
 http://www.nawic.org/nawic/default.asp?SnID=1522930324
- Sisters in the Building Trades. Sisters in the Building Trades is a network of active women that affirm building trades for women as a positive and growing part of the construction workforce. http://www.sistersinthebuildingtrades.org
- Women in Construction (WIC). WIC provides a large collection of online resources for women in construction and the building trades, which includes links to professional associations, networking groups, and information banks. http://www.contractorcity.com/women-in-construction.html
- Women of Wind Energy (WoWE). WoWE promotes the education, professional development, and advancement of women to achieve a strong diversified workforce and support a robust renewable energy economy. http://www.womenofwindenergy.org

SAFETY AND HEALTH

GOVERNMENT RESOURCES

- U.S. Department of Health and Human Services (HHS), Centers for Disease Control and Prevention (CDC), National Institute for Occupational Safety and Health (NIOSH). NIOSH helps to assure safe and healthful working conditions for working men and women by providing research, information, education, and training in the field of occupational safety and health. http://www.cdc.gov/niosh/topics/women
- U.S. Department of Labor (DOL), Occupational Safety and Health Administration (OSHA). OSHA
 sets and enforces protective workplace safety and health standards and provides information, training,
 and assistance to workers and employers. It has a green job hazards Web page.
 http://www.osha.gov/dep/greenjobs
- U.S. Environmental Protection Agency (EPA). EPA's "Protecting Workers" Web page offers information on EPA's Worker Protection Standard for those working in areas where they are exposed to pesticides. http://www.epa.gov/pesticides/health/protecting-workers.html and http://www.epa.gov/pesticides/health/worker.htm

Non-Government Resources

• American Wind Energy Association (AWEA). AWEA's fact sheets on safety in the wind industry provide information on working conditions in the wind industry. http://www.awea.org/learnabout/publications/factsheets/factsheets_safety.cfm

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- International Safety Equipment Association (ISEA). The article "PPE for Women" in the April 2010 issue of *Protection Update* discusses the problem of ill-fitting personal protective equipment (PPE) provided to women and progress in addressing the problem. It includes a list of innovative PPE products that ISEA member companies already design, size, and style with women in mind. http://ehstoday.com/images/ISEA_April.pdf
- National Council for Occupational Safety and Health (COSH). COSH is a network of 21 local and statewide coalitions made up of unions, health and technical professionals, and individuals concerned about workers' rights to safety and health. http://www.coshnetwork.org
- Oregon Solar Energy Industries Association (OSEIA). OSEIA prepared Solar Construction Safety (December 2006), a training manual that helps employees learn the basics of solar construction safety. http://www.nwsolarexpo.com/downloads/OSEIA_Solar_Safety_12-06.pdf

SEXUAL HARASSMENT

GOVERNMENT RESOURCES

• U.S. Equal Employment Opportunity Commission (EEOC). EEOC enforces a federal law that prohibits sex discrimination in employment, including sexual harassment. http://www.eeoc.gov/laws/types/sex.cfm and http://www.eeoc.gov/laws/types/sexual_harassment.cfm

NON-GOVERNMENT RESOURCES

National Women's Law Center (NWLC). NWLC's website contains Frequently Asked
 Questions About Sexual Harassment In The Workplace.
 http://www.nwlc.org/resource/frequently-asked-questions-about-sexual-harassment-workplace

SOCIAL NETWORKS

NON-GOVERNMENT RESOURCES

- Harvard University, Kennedy School of Government. The Bettertogether.org website offers a
 listing of ways to build your connections to advance your career.
 http://www.bettertogether.org/150ways.htm
- Institute for Women's Policy Research (IWPR). IWPR's paper "Women's Status and Social Capital in the States" (July 2002) analyzes the relationships between social capital and women's status. http://www.iwpr.org/publications/pubs/women2019s-status-and-social-capital-across-the-states

TAX CREDITS

GOVERNMENT RESOURCES

• U.S. Internal Revenue Service (IRS). Information on four important federal tax credits can be found on the IRS website. http://www.irs.gov/newsroom/article/0,,id=120665,00.html

NON-GOVERNMENT RESOURCES

- Center on Budget and Policy Priorities. The Center's National Tax Outreach Campaign promotes the Earned Income Credit (EIC), the Child Tax Credit (CTC), and free tax filing assistance for low- and moderate-income workers. http://eitcoutreach.org
- National Center for Children in Poverty (NCCP). NCCP provides information on state tax programs through their State Policy Wizard website. http://www.nccp.org/tools/policy

• National Community Tax Coalition (NCTC). NCTC's website can help you locate a free tax preparation program in your area. http://tax-coalition.org/our-coalition/our-coalition/program-locator

TRANSPORTATION ASSISTANCE

Non-Government Resources

• Community Transportation Association of America (CTAA). CTAA provides information on local transportation programs. http://web1.ctaa.org/webmodules/webarticles/anmviewer.asp?a=119&z=5

WORKERS' RIGHTS

GOVERNMENT RESOURCES

- National Labor Relations Board (NLRB). NLRB protects the rights of most private-sector employees to join together, with or without a union, to improve their wages and working conditions. http://www.nlrb.gov/about_us/overview/national_labor_relations_act.aspx
- U.S. Department of Labor (DOL). DOL administers and enforces more than 180 federal laws that cover many workplace activities. http://www.dol.gov/opa/aboutdol/lawsprog.htm
 - Employment and Training Administration (ETA). ETA provides a guide to local and regional DOL programs and services and state unemployment benefits. http://www.dol.gov/dol/location.htm
 - Occupational Safety and Health Administration (OSHA). OSHA sets and enforces protective workplace safety and health standards and provides information, training, and assistance to workers and employers. http://www.osha.gov/workers.html or http://www.osha.gov/doc/accsh/haswicformal.html
 - Office of Federal Contract Compliance Programs (OFCCP). OFCCP provides information on federal contractor and subcontractor anti-discrimination requirements. http://www.dol.gov/ofccp/regs/compliance/fs11246.htm
 - Office of Workers' Compensation Programs (OWCP). OWCP provides links to state workers' compensation offices. http://www.dol.gov/owcp/dfec/regs/compliance/wc.htm
 - Wage and Hour Division (WHD). WHD provides information on the Family and Medical Leave Act (http://www.dol.gov/dol/topic/benefits-leave/fmla.htm) and state minimum wage laws and other wage-related rights (http://www.dol.gov/whd/regs/compliance/hrg.htm).
- U.S. Equal Employment Opportunity Commission (EEOC). EEOC enforces federal laws that make it illegal to discriminate against a job applicant or an employee because of the person's race, color, religion, sex (including pregnancy), national origin, age (40 or older), disability, or genetic information. Its website provides information on worker rights, EEOC office locations, and filing a discrimination complaint. http://www.eeoc.gov

OTHER RESOURCES

GOVERNMENT RESOURCES

• U.S. Department of Labor (DOL), Employment and Training Administration (ETA). Sponsored by DOL, Green Community of Practice (CoP) provides current information related to the green economy, as well as job search resources and information. Requires free registration. http://greenjobs.workforce3one.org

NON-GOVERNMENT RESOURCES

• Catalyst. Catalyst provides a list of resources for women seeking career-related advice on networking, mentoring, entrepreneurship, as well as information about scholarships and grants, personal finance, and legal issues. http://www.catalyst.org

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- Institute for Women's Policy Research (IWPR). IWPR provides a wealth of information on a variety of topics related to women in the workplace. http://www.iwpr.org/index.cfm
- National Association of Commissions for Women (NACW). NACW provides information
 on state laws, discrimination complaint processes, training sessions, and other resources for
 women. http://www.nacw.org/regions/index.php?page=main
- United Way. United Way 2-1-1 provides free and confidential information and referral. Call 2-1-1 for help with food, housing, employment, health care, counseling, and more. http://www.211.org

This list is not exhaustive and inclusion on this list does not represent an endorsement of any institution or program. While all efforts are made to ensure that hyperlinks are working and the information contained at the referenced websites is useful, the authors do not endorse, take responsibility for, or exercise control over the websites or organizations, nor do they vouch for the accuracy or accessibility of the information contained on these sites. The authors also cannot authorize the use of copyrighted materials contained in these sites. Users must request such authorization from the sponsor of the website.

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PLANNING YOUR GREEN CAREER: TOOLS AND WORKSHEETS

Now that you have had an opportunity to explore what it means to be green in today's workforce, it is time to put your plan into action. Take a few minutes and glance through the worksheets that follow. You will find that they focus on a range of topics, many of which mirror earlier chapters in this guide. You will have an opportunity to explore occupations, think through child care and transportation issues, and more. In some cases, relevant chapters of the guide are referenced to make it easier for you to find the information you need in order to evaluate where you are, and where you hope to be, in your career.

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There is no right or wrong way to tackle the completion of these sheets. You may want to use the sheets as they are, or you may want to create a notebook of your own where you can answer the questions or lay out the charts with the space you require to fully complete the activity. Having a friend who knows you well or a family member you trust review your answers or work with you may be helpful. Sometimes we overlook what is most obvious to others.

WORKSHEETS

These worksheets are meant to be a resource for you as you organize your thoughts, ideas, actions, and objectives. They are not intended to be prescriptive, only to help you define what green job may be the right fit for you. Enjoy your exploration.

- A. Weighing Key Factors
- B. Using O*NET
- C. Using My Next Move
- D. Using mySkills myFuture
- E. Organizing Your Occupation Search Results
- F. Skills and Knowledge Matching
- G. Rating Your Core Skills
- H. Identifying Education/Training Options
- I. Getting Help with Education/Training Costs
- J. Solving Transportation Challenges
- K. Solving Child Care Challenges
- L. Planning and Tracking Your Job Search
- M. Preparing Your Resume
- N. Preparing for Your Interview
- O. Advancing Your Career
- P. Is Entrepreneurship Right for Me?

A. WEIGHING KEY FACTORS

Wage	
• What is the minimum starting wage you can live on?	
• What is the wage range you need to be in after three years?	
 Not sure how to answer these questions? It is best not to guess. Start with an actual budget current expenses. If you need help, search online for budget calculators that show how to r track your income and expenses. 	
Location	
• Are you willing to relocate to pursue a career opportunity? Consider the potential advantage and disadvantages before answering. (<i>Note</i> : You may want to revisit this table after reviewing information about where the best opportunities are for the occupations in which you are more interested.)	g the
Advantages to Relocating Disadvantages to Relocating	
	7
	1
	_
• Where are you <i>not</i> willing to relocate to?	
 • Where are you <i>not</i> willing to relocate to? • Is relocation assistance a must-have? 	
O Is relocation assistance a must-have?	
	at
• Is relocation assistance a must-have? Education/Training/Preparation Time Commitment Higher wages and better opportunities generally require education or training. Think about when the second contract of the second con	at
 O Is relocation assistance a must-have?	at
 Is relocation assistance a must-have?	at

Do not let these concerns stop you! Continue to explore your options and talk to a career advisor and/or others who can advise you before deciding how you can proceed.

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B. USING O*NET



http://www.online.onetcenter.org

This website is a helpful tool for learning more about occupations in which you might be interested. Its most useful features are outlined here, with some shortcuts to getting the information you need.

• Organize the results of your search by filling out one "Quick Capture" worksheet (see below under "Organizing Your Occupation Search Results") for each occupation you research.

Look for two symbols as you browse through the occupations on O*NET:

- The "Green" symbol marks occupations that are green or can be green in some settings.
- The "Bright Outlook" symbol marks occupations that are projected to be fast-growing and have a lot of job openings or are new and emerging occupations in a high-growth industry.

ORGANIZING YOUR EXPLORATION

Explore by Industry

• One good way to organize your exploration of green jobs is to explore by industry. Start with the "Green Occupations" box on the O*NET website and click "Search."



• On the drop-down menu of "Green Economy Sectors," click on one sector at a time to browse the occupations.



• Within a sector, click on an occupation title to get a bullet-point summary of key information about that occupation. Scroll down the page, focusing on the following sections: "Tasks," "Work Activities," "Job Zone," "Wage and Employment Trends," and "Sources of Additional Information."



• The "Sources of Additional Information" section has links to other websites that can give you more information about that occupation. If the occupation is included in the *Occupational Outlook Handbook* (available from the U.S. Department of Labor's Bureau of Labor Statistics at http://www.bls.gov/oco), you will be able to link to its description there. That description will give you a more detailed and readable profile of the occupation. Check out the profile to get a clearer picture of the job, including its working conditions and training requirements.

Explore by Skills and Interests

- Use the "Advanced Search" function to search for jobs that are a good match to your interests and skills.
- Click on "Advanced Search," then on "Skills Search" and mark all the skills that you either have or would like to use in a job. Then click "Go" to generate a list of job titles you can explore further.

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Explore by Job Zone

If your top priority is finding out which jobs require what amount of preparation/education/ training, you can search by "Job Zone."

• Under "Find Occupations," choose "Job Zone" from the drop-down menu.



• A second drop-down menu will allow you to choose a job zone and browse occupations. Then look for jobs marked by this symbol:



C. USING MY NEXT MOVE



My Next Move (http://www.mynextmove.org) is an interactive tool for job seekers and students to learn more about their career options. The site has tasks, skills, salary information, and more for over 900 different careers. Users can find careers through keyword search; by browsing industries that employ different types of workers; or through the O*NET Interest Profiler, a tool that offers personalized career suggestions based on a person's interests and level of work experience.

This website is developed and maintained by the National Center for O*NET Development, under the sponsorship of the U.S. Department of Labor, Employment and Training Administration, through a grant to the North Carolina Employment Security Commission.



Search careers with key words.

To search by a job name or job task:

• Enter one or more words in the space provided on the left side of the home screen and click "search." The result will be a list of occupations that somehow relate to your words. For instance, "solar" turns up occupations like solar energy systems engineers, solar photovoltaic installers, and heating and air conditioning mechanics and installers.

Browse careers by industry.

To use by industry:

• Use the middle space on the home screen to choose from one of 21 industries on the drop-down menu. You can also choose to "see all careers." The results are organized by jobs where most people work in that industry and by jobs where some people work in that industry.

Tell us what you like to do.

To search by your interests:

• On the right side of the home screen, click "start" to go to the O*NET Interest Profiler. This step-by-step program begins by asking you to rate whether you would like to do a specific task and gives you a total score by category of work. Once you have chosen the level of education and preparation you are comfortable with, the profiler gives you a list of occupations that match your interests.

Regardless of the way you get to your potential career list, the site shows whether a particular occupation has a "bright outlook," which means it is likely to have good employment opportunities in the future. It also tells you whether the occupation is considered green and whether there are registered apprenticeships for that career.

If you would like to look at all the careers falling into one of these categories, click on the buttons along the bottom of the home page.

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D. USING MYSKILLS MYFUTURE



http://www.mySkillsmyFuture.org

CareerOneStop's new website helps laid-off workers and other career changers find new occupations to explore, based on transferable skills they've gained in past jobs.

Here's how mySkills myFuture works:

- Enter the name of your current or previous job to generate a list of occupations related to your current or previous experience by O*NET skill, knowledge, and ability attributes.
- Quickly compare the list of potential occupations. The matched occupations are displayed in a chart with salary information, educational requirements, and number of local job listings.
- Get local information. Enter your state or ZIP code to see your local salary and job listing data.
- Find occupation details. Click on an occupation to view details, including description, tasks, tools and technology, and more.
- View a skills comparison. Compare any of the potential matches to your current or previous job in more detail. A page of side-by-side charts and data provides an overview comparison of skills and knowledge, salary, education, and more.
- View and apply for jobs in your local area. For any occupation, you can obtain a list of job listings in your local area (e.g., your city) and click directly through to the hiring company's website.
- Locate local training programs. From any occupation, click to view information for shortand long-term training programs at community colleges, four-year colleges, and other schools. You can find programs by state or ZIP code.
- Find related licenses, certifications, and apprenticeship programs. Details on occupational licenses, certifications, and apprenticeship programs are also easily accessed from any selected occupation.
- *Quick access to help.* Link to step-by-step explanations of each page and brief instructional videos throughout the site.

E. Organizing Your Occupation Search Results

Complete this "Quick Capture" worksheet for each occupation you research.

* For more detail on these items, see worksheet A, "Weighing Key Factors."

O*NET's "Wages and Employment Trends" to select your 1 2 3 poor/ average/ declining steady Rate the job prospects in the state you would be willing to 1 2 3 poor/ average/ declining steady Wages Use the "State and National" drop-down menu on O*NET to see wage and job outlook information for your state and Low/starting wage: \$	state and fir 4 relocate to 4 under "Wad any other ts my botton	and out the employment projection. 5 excellent/ strong growth using the scale below:* 5 excellent/ strong growth ges and Employment Trends" relevant locations. m line*
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Tasks and Work Activities Rate the appeal of the tasks and work activities on this 1 to	☐ Meets my	three-year target*
Rate the appeal of the tasks and work activities on this 1 to		
1 – 1 would hate most of these tasks and 3 – 1 would lo		
1 2 3	4	5
Working Conditions		
Rate the appeal of the working conditions on this 1 to 5 so $1 =$ "The working conditions sound awful" and $5 =$ "These		onditions sound great."
1 2 3	4	5
Training and Education Requirements		
Level of training/education required, or Job Zone for this	occupation:	
Specific training and/or credential(s) required:		

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F. SKILLS AND KNOWLEDGE MATCHING

Higher wages and better opportunities almost always require education or training. This worksheet will help you clarify the requirements for the occupations that interest you, make the most of your existing knowledge and skills, and analyze the total time you will need to complete the education or training needed to move into a green job and advance in a green career.

Start by reviewing the occupations you have researched:

- Gather together all your "Quick Capture" worksheets that you completed on the occupations that interest you.
- Look through them all and compare the occupations based on your priorities.
- Select those you want to pursue further.
- For *each occupation* that you want to pursue further, complete the following steps:
 - List the technical skills and knowledge (sometimes called "hard skills") required for the occupation and list the related skills and knowledge you already have. When thinking about your related knowledge and skills, think about your entire range of experience, including work done in other industries, volunteer work, hobbies, etc. (If you need more space, you can create an expanded planning grid on paper or a computer.)
 - Research the types of education or training programs that can give you the knowledge and skills you still need to qualify for this occupation. See worksheet G, "Identifying Education/ Training Options."

Occupation:	

Technical Knowledge and Skills Required	Related Knowledge and Skills I Have

G. RATING YOUR CORE SKILLS

For most green jobs, there is a set of core skills and attitudes, sometimes called "soft skills," that every employer wants. It is important to build as much strength as possible in these areas.

• Rate yourself on a scale of 1 to 5 to describe how strong you are in each of these core skills and attributes, where 1 = very weak and 5 = very strong. Be honest with yourself!

Communicate well verbally and in writing	1	2	3	4	5
Work well in a team	1	2	3	4	5
Take initiative	1	2	3	4	5
Analyze a problem and offer possible solutions	1	2	3	4	5
Have a strong work ethic	1	2	3	4	5
Have a positive attitude	1	2	3	4	5
Welcome constructive feedback	1	2	3	4	5
Eager to take on new projects and learn more	1	2	3	4	5

- Look at those areas where you have rated yourself a 4 or 5. In the space in the chart above, write down at least one example of an instance where you demonstrated your strength in each area. Refer to these examples in your cover letters and job interviews.
- Next, look at those areas where you rated yourself a 1 or 2. In the space in the chart above, write down at least one idea you have about how you can strengthen each skill area. Be as specific as possible.

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H. |DENTIFYING |EDUCATION | TRAINING | OPTIONS

What training do I need?

- Based on the knowledge and skills you need to qualify for the occupations that interest you, identify training providers that offer the necessary programs and credentials. (See the "Matching Skills and Knowledge" worksheet and check Chapter 4, "Educating Yourself for a Green Career," for more information and resources.)
- See the example provided on the first line to get an idea of how to use this planning grid.

Program Name	Total Courses	Total Credits	Credits I Can Earn for Existing Experience (see below)	Institutions Offering This Program
Associate Degree in Engineering Technology	20 - 21	68		ABC Community College GHI Tech University

- Make an appointment to meet with the program advisor at one of the institutions. Enter the number of credits you can earn for prior experience in the planning grid above. Recalculate the total number of credits you will need to acquire through the program and enter it here: _______.
- Talk to the advisor about how long you have to complete the program and ask about any limitations on when courses you'll need are offered so you can match up this schedule with your personal schedule.

More Research

- For each institution offering the education/training program that interests you, find out the following:
 - When is it available? (Seek information on both the semester scheduling and the dates/ times of classes you need. Are core courses offered only during certain semesters? Are there evening or weekend classes? Can you complete any of the classes online?)
 - Program Prerequisites: What is required for entry? (Note any prerequisites you already have met.)
 - Portable Credential: Will I receive an industry-recognized credential (certificate, degree, etc.) when I complete this education/training program? You can find a list of credentials needed for each occupation on the O*NET website.
 - What is the total cost of this program, including tuition, fees, books, computer, etc.?

Institution	When	Prerequisites		Portable	Total Cost		
and Program	Available?	Required	Already Met	Credential?	(tuition, books, fees, etc.)		

Quality Check

- Ask people already working at the job you want where they went for training and the types of credentials that they earned. Also, ask whether they would recommend that institution and program, and why or why not.
- Ask your prospective training provider about job placement rates for students/trainees in the specific program that interests you. Also ask which companies typically hire the provider's graduates and whether the provider offers help finding and keeping a job.

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|. GETTING HELP WITH EDUCATION/TRAINING COSTS

Few students are able to pay for the entire cost of their education themselves. Most receive several different types of financial aid (i.e., grants, scholarships, loans) to help with the costs.

The first step is to find out what kinds of financial help you qualify for. Fortunately, there is an easy way to do this: The Free Application for Federal Student Assistance (FAFSA) is used for all types of federal student aid, as well as for most state and institutional financial aid programs.

- O Complete the FAFSA:
 - Get the FAFSA online or by telephone (http://www.fafsa.ed.gov or 800-4-FED-AID).
 File online if you can. (It is faster, and you will be notified immediately if you make a mistake.)
 - Start early! Check deadlines and remember that financial aid is distributed on a first-come, first-served basis.
 - Assemble the required documents before you start.
- The next step is to explore all of your financial aid options. Go to the U.S. Department of Education's "Find & Pay for College—Explore Financial Aid" page at http://www2.ed.gov/students/college/aid/edpicks.jhtml to find several websites that will help with this research.
- Visit your local One-Stop Career Center (go to http://www.servicelocator.org to find it) to discuss your career plans and the education or training you will need, talk about the research you have done on financial aid, and ask about assistance with your education/training costs.
- If you want more resources, conduct additional Internet research on local, state, regional, and national scholarship programs, focusing on the field you are interested in and personal characteristics. There may be scholarships specific to women, a certain race/ethnicity, your community, etc.
- If you are employed, your company might help you finance your education and training. Some employers offer tuition reimbursement programs or will pay for training up front, especially if the program is related to your current job or a career path at the company. Talk to your supervisor or human resources office about the company's career development policies.
- Use the Financial Aid Wizard at http://studentaid2.ed.gov/getmoney/fin_aid_wizard to plan out financial aid packages for different schools. Analyze your total costs for different education options and record those costs in the following chart. Use this information to help you decide which training provider is best for you. Other considerations include the quality and reputation of different programs and their employment rate for graduates.

• Summarize your research on the financial aid package options you have assembled for different schools:

School	Total Cost Per Program or Year (tuition, books, fees, etc.)	Grants and Amounts Available	Scholarships and Amounts Available	Loans and Amounts Available	Support Available From One-Stop Career Center, Employer, or Other Sources	Final Cost (subtract all assistance amounts from cost in column 2)

Be sure to review Chapter 4, "Educating Yourself for a Green Career," for further information on financing your training and education.

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J. SOLVING TRANSPORTATION CHALLENGES

Plan now for how you will address transportation needs during education/training and in your new job.

Planning

Outline your travel schedule (example: home to education/training and/or work, plus child care):

Starting Point	Destination	Arrival Time	Transport Option	Backup Plan
Home	Child care	8:00	Subway, arrive at 7:50	Bus, arrive at 7:40
Child care	Job site	9:00	Bus, arrive at 8:30, walk 4 blocks	Ride with friend

- If you will be relying on public transportation, research the transit routes and schedules to find the most efficient options that fit with your travel schedule. Include route numbers, stops, departure and arrival times, etc. so you can see your transit plan in detail. (Example: Catch #32 bus at Beech St. 7:18 AM; arrive child care center 7:50 AM; etc.)
 - *Note*: If you will be training or working at multiple sites, you will need a separate transit plan for getting to each site.

Starting Point	Destination	Arrival Time	Transport Option	Backup Plan

• Is ride-sharing an option? It is most likely to work if you don't need to drop your kids off at a child care provider. Check with the student services or human resources office at the school or the training provider to find out about any sponsored ride-share programs that may be available.

Help With Transportation Costs

- Research local sources of transportation assistance:
 - Transit passes (bus, rail and/or subway) for getting to training or work might be available from the following:
 - Local nonprofit organizations
 - Faith-based organizations
 - One-Stop Career Centers
 - Individual job training programs
 - Your employer
- Research local programs that help low-income families purchase cars for the purpose of getting or retaining employment. Contact your local One-Stop Career Center or a local nonprofit organization that helps low-income individuals find and keep a job.

K. SOLVING CHILD CARE CHALLENGES

Plan now for how you will address child care needs during education/training and in your new job.

• If you already have a child care provider, find out if that provider can accommodate the hours you will need child care during education/training or in your new job.

Finding and Choosing a Provider

Broadly speaking, there are three basic child care options: informal (family, friend, or neighbor); licensed provider; and employer-provided. There are pros and cons to each:

Type of Provider	Pros	Cons
Informal	 Usually more affordable You may know the person better	 May be less reliable if the person doesn't have someone to provide back-up in case of emergency May not be reimbursable under dependent care savings plans or social services programs
Licensed	 Providers are trained Enough staff to provide care even if someone doesn't show up for work Reimbursable 	May cost more May not be conveniently located
Employer-provided	 Trained providers Adequate staffing Usually affordable (some employers pay part or all of cost) 	Not available in many workplaces

- Start by asking if the training provider or your employer offers child care on-site. This can be a great convenience.
- To find a licensed provider, contact the following sources for information and referrals:
 - Your training or education provider
 - Local women's centers
 - One-Stop Career Centers
 - National Association of Child Care Resource and Referral Agencies (http://www.naccrra.org)
- Interview several potential child care providers to make sure you are comfortable with the quality of care. See the "Finding Quality Child Care" checklist in Chapter 8, "Overcoming Challenges on Your Career Path," for details.

Getting Help with Child Care Costs

For working families with low incomes, parents may be eligible to receive child care subsidies or receive care at a reduced fee through state child care assistance programs. Contact information and links for state agencies are available at http://nccic.acf.hhs.gov/statedata/dirs/display.cfm?title=ccdf.

Other possible sources of child care assistance are your local One-Stop Career Center, your education/training provider, and local community organizations.

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• Research your options for child care assistance:

Source of Assistance	Do I Qualify?	What types of providers are reimbursed?	How much of the costs are covered?	Is there a waiting list? When can I expect to receive assistance?
State or Local Social Services/ Child Care Agency				
One-Stop Career Center				
Training Provider				

Another option for low-income families with young children is the Head Start program. Head Start (for kids ages three to five) and Early Head Start (for kids ages zero to three and pregnant women) helps young children prepare to enter school by providing quality child care that emphasizes activities that promote learning and social development. The program is also family-centered, helping parents to find the support they need to nurture their children. To find the Head Start and Early Head Start programs serving your community, visit http://eclkc.ohs.acf.hhs.gov/hslc/HeadStartOffices.

• Contact your local Head Start office to apply or find out if your family is eligible.

L. Planning and Tracking Your Job Search

Getting Placement Assistance

• Make use of job placement assistance offered by the institution that provided your education or training, and by the One-Stop Career Center in your area. (See http://www.servicelocator.org to find your nearest center.) Make an appointment to meet with each to discuss how they can help you, ideally before you complete your program.

Searching Online

Most job postings are now online. It is essential to make online resources a key part of your job search.

- Investigate the many online job listing sites that are available. There are many general and green-focused sites out there. Make use of the tailored search and update functions offered by the sites. (See Chapter 5, "Finding Your Green Job," for specific site suggestions.)
- Be sure to check the websites of companies you would be interested in working for often; they probably post job listings on their own sites.

Traditional Newspaper Ads

Newspaper ads (both printed and online) remain a source for job postings.

- Look at the postings in the newspapers for the areas in which you are willing to work.
- Note that you can view many newspapers' classified ads on their websites. Also, visit http://media.monster.com/a/i/infomons/pdf/NPP_PartnerList_2009.pdf, which has links to many newspapers' job listings in one place.

Networking

Networking is a critical part of a successful job search. It is important to utilize all the connections you have, both personal and professional, to help you secure the job opportunity you are seeking.

• Let others know you are looking, give them an idea of what you are interested in and your qualifications, and stay in touch regularly to update them on your search. It is essential to be organized about your networking.

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• Use the table below to track your contacts:

Name and Contact Information	Date Contacted	Focus of Conversation	Follow-Up Required and Date Completed	Results/Notes

Your Resumes and Interviews

All of your efforts to find job opportunities are geared toward the next steps: sending your resume and getting an interview. As you pursue job leads, it is vital to keep track of who you submitted applications to, which employers you need to follow up with, and the outcomes of those contacts.

• The following table will help you keep track of your job search steps, but also keep an electronic and hard-copy file of the materials you send to potential employers (e.g., cover letter, resume, work samples, etc.).

Job Opening	Date Found	How Found (e.g., particular website, referral, etc.)	Date Application Submitted	Position Closing Date	Follow-Up and Date Completed (e.g., call or e-mail, interview, thank-you letter)	Results/Notes

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M. Preparing Your Resume

Build the Core of Your Resume

Prepare the following information to include in every resume you send out:

• Contact Information

•	Phone number with voice mail
	(Be sure that the recording presents a positive image of you for a potential employer.)
•	E-mail address
	(If you don't already have one, there are several sites that offer free accounts. Choose an
	e-mail address that is professional sounding.)

Education and Training

Training/Education	Location/School	Date Achieved
Academic certificate earned:	From:	
Degree earned:	From:	
Additional training completed:	At:	
Licenses earned:	At:	
Awards or honors received:	From:	
Merit-based scholarships received:		

• Work Experience

Position Title, Employer (City/State), Start and End Dates of Employment	Achievements, Special Skills Used, Green Highlights/Connections

O Professional Affiliations

• List any professional, civic, or social organization memberships, leadership positions, etc. that relate to the targeted industry or green issues.

Customize Your Resume

You will want to customize your resume for each employer, thus increasing your chances of standing out in the application process. Your goal is to show the employer how your knowledge, credentials, skills, and experience are a perfect fit for both the position and the organization.

- Review each employer's website and publications for the following information:
 - What is the organization's mission? What values are emphasized? What does the organization view as important?
 - What key words does the employer use to talk about its green work? Be sure to use these in the top half of the first page of your resume!
 - Would a functional resume serve you better than a purely chronological resume? Instead of listing your experience by date and job title, a functional resume describes your experience under categories of type of work, such as "customer service" or "management," and focuses on the skills you demonstrated. This kind of resume is often used by those who are switching industries or who have changed jobs frequently. Consult your local One-Stop Career Center for more information on how to prepare this type of resume.
- Review the job announcement and position description:
 - What knowledge is the employer looking for?
 - What skills is the employer looking for?
 - What credentials is the employer looking for?
 - What qualities is the employer looking for?
- Edit your standard resume to focus on the skills and experience this employer is seeking.
- O In your cover letter, include a paragraph or two that details how your knowledge, credentials, skills, and experience fit closely with the employer's overall priorities and interests, as well as the specifics of the position.

Reminders:

- Show your green awareness by printing your resume and cover letter on recycled paper.
- Always have someone else proofread your cover letter and resume.

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N. Preparing for Your Interview

Before the Day of the Interview

- Review the information on the company and the position that you gathered for your customized resume (see worksheet M, "Preparing Your Resume"). Also review the resume and cover letter you sent to the company.
- Highlight the knowledge, skills, and abilities you described to the employer.
- Make a list of general questions that the employer is likely to ask. You can find sources of typical interview questions online. (Example: What is your greatest strength? Do you prefer working independently or on a team?) (Note: You can use this list for all of your interviews.)
- Make a list of possible interview questions that are specific to this employer, this position, and/or green issues. (Example: What are some examples of your commitment to the environment in your daily life? Which of our projects would you be most interested in working on and why?)
- Jot down two or three questions you want to ask the employer. These should focus on learning more about the way the workplace operates, the most interesting challenges posed by the work, etc. You can also ask about next steps in the interview process. Avoid asking about compensation at a first interview.
- Prepare a well-formatted list of references to leave with the employer if asked. These should be from past supervisors or co-workers. Provide the reference's name, company, title, and contact information. Be sure to contact these individuals in advance to let them know you would like to use them as references. Do not use family or friends as references.
- Ask a trusted friend or family member to practice questions with you. Practice until your answers feel comfortable and flow easily.
- Develop and practice positive answers to negative questions. For example, "Why do you want to leave your current position?" can be answered in terms of seeking new opportunities and career advancement in the emerging green economy.

The Day of the Interview

- Dress neatly and appropriately for the interview and the industry in which you are applying. (Examples: If your interview is for an office job, wear conservative business attire and simple jewelry. If your interview is for a job in construction and will be occurring at a construction site, wear clean and neat pants, shirt and blazer, and sturdy, flat-soled shoes.) You can look online for detailed advice about interview attire.
- Plan your travel so that you are sure to arrive five to 10 minutes early for the interview. Arriving late sets a poor first impression.
- Bring a copy of your references, plus an additional copy of the resume you sent to this employer.
- Ask each interviewer for a business card.

After the Interview

- Oconsider sending a thank-you note to each interviewer after every interview, within two business days of the interview. Be sure to use the person's correct title and to spell his/her name correctly. (See the business cards you collected during the interview, look on the company's website, or call the reception desk to ask for the information.) It is appropriate to send the thank-you note via either e-mail or regular mail.
- Follow up by e-mailing or calling (within seven to 10 business days, or less if the employer has a short hiring timeline) to show your continued interest in the position.

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O. ADVANCING YOUR CAREER

Having a green occupation isn't an end in itself. As discussed in this guide, things change quickly in the green economy; new technologies and skill requirements are always evolving. A successful green career requires being ready to meet those new demands and shaping a path that works for you. Answer the following questions to help yourself take steps to build such a career.

- From where you are now, which occupation or step up would you be interested in? What comes after that?
- What are the disadvantages of that next level? What are the advantages?
- What aspects of your current work do you enjoy most? What position gives you the greatest opportunity to do these types of things?
- What new skills can you learn in your field to improve your opportunities for advancement?
- What new experiences do you need in your field to improve your opportunities for advancement?
- How can you learn these skills and gain these experiences? Can you get these on-the-job? At your current job? Will you need to obtain additional credentials?

Plot Out Your Career Path:

Current Job:		Current Employer:		
Next Job	What I Need to Do to be Ready	Potential Employers	Timing	

Take a look at this planned path regularly and keep track of the steps you have taken to prepare yourself for the next job.

Tips:

- Talk to others doing the jobs you think you might like to do someday. Ask for advice about what you need to do to move into that occupation.
- Consider your current job performance. How can you improve your performance to make yourself a strong candidate for a promotion?
- Determine whether you will need to change companies to advance. Will you need to relocate?
- Stay up-to-date on the field by reading publications, attending conferences, and networking with others in your profession. Seek out challenging work so you can build new skills.
- Keep a log of your achievements and highlight these in your resume.

P. IS Entrepreneurship Right for Me?

information and next steps.

Being in business for yourself can be both rewarding and challenging. Here is a short checklist to help you determine if entrepreneurship is a good fit for you:
☐ Are you innovative in finding solutions to problems and challenges?
☐ Do you thrive under pressure?
☐ Do you recover from setbacks by taking a different approach and trying again?
☐ Are you willing to take financial risks?
☐ Can you effectively manage yourself and your time?
☐ Are you willing to work long, demanding hours?
☐ Can you work alone for long periods of time?
☐ Can you create a vision and help others to support that vision?
☐ Can you motivate others to act?
☐ Can you trust others to do their jobs?
\Box Are you willing to sacrifice your free time to deal with the priorities of your business?
☐ Are you the sort of person who can stay focused on a long-term goal?
☐ Are you able to secure financial backing/support for your ideas/projects?
If you answered "yes" to most of these questions, entrepreneurship may be right for you. The next step is to find out more about the resources that are available to help you explore your options.
• Make a list of people you know who are successfully self-employed or own a small business. Make an appointment to talk to at least one successful self-employed person and one small business owner about their experiences.
 Find an introductory entrepreneurship class in your area. The best place to start is the Small Business Development Center (SBDC) in your state. Search online at http://www.sba.gov for the "SBDC Locator" and click on your state on the map. Your local SBDC can connect you with workshops, training, and other resources that will help you explore and pursue the creation of a small business. Consider the types of classes you will need to take. For instance, you might want to take a business
accounting course, a course on developing a business plan, a workshop on licenses and permits, or other business-relevant topics. Make a list of entrepreneurship workshops or classes you want to attend in the next three months:
If you want to pursue becoming an entrepreneur, refer to Chapter 6, "Green Entrepreneurship," for further

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GLOSSARY OF TERMS

Accredited Postsecondary Institutions: Educational institutions that have met certain standards of quality and are listed in the U.S. Department of Education's Database of Accredited Postsecondary Institutions and Programs at http://www.ope.ed.gov/accreditation. They are evaluated by an accrediting agency or state approval agency that is recognized by the secretary of education.

American Recovery and Reinvestment Act (ARRA): A \$787 billion economic stimulus package enacted in February 2009 to create new jobs, save existing ones, spur economic activity, and invest in long-term growth.

Apprenticeship: Apprenticeships are training programs that use a combination of structured classroom education and on-the-job learning to prepare individuals for careers in traditional industries such as construction and manufacturing, as well as new emerging industries such as health care, information technology, energy, telecommunications, and more. Apprenticeships helps connect job seekers looking to learn new skills with employers looking for qualified workers. Apprenticeship programs can be sponsored by individual employers, joint employer and labor groups, and/or employer associations. The U.S. Department of Labor sets standards for Registered Apprenticeship programs.¹⁰³

Balance Sheet: A summary of the assets, liabilities, and net worth of a business at a given time.

Biomass: Biological material that may be used as a renewable energy source. Wood, garbage, and agricultural waste material are examples of biomass energy sources.

Brownfield Site: Real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant.¹⁰⁴ These properties can be cleaned to eliminate potential health risks, thus restoring economic vitality to communities.

Capital Expenditure Budget: A plan that identifies the amount of cash a company will invest in income-generating projects and assets, such as rental property, new products, information technology, and research and development.

Carbon Footprint: A measurement of the greenhouse gases produced by human activity that requires nonrenewable energy. It can be calculated at the individual level or more broadly.¹⁰⁵

Career and Technical Education (CTE): Education that provides practical skills and knowledge needed for the pursuit of specific careers. See also "vocational education."

Cash Flow Statement: A financial document summarizing real or expected incomings and outgoings of cash in a firm during a given period of time.

Climate Change: A long-term alteration in weather patterns, including temperature, precipitation, humidity, wind, and/or seasons.

GLOSSARY OF TERMS CONTINUED

Corporation: A business that meets the legal requirements to exist as an entity apart from its owners (stockholders or shareholders). The owners of a corporation are protected from being personally liable in the event their company is sued.

Ecosystem: The plant life, animals, and nonliving features that make up an environment and interact in that environment. Some examples of ecosystems are coral reefs, coastal shores, and your backyard.

Energy Efficient: The use of less energy to provide the same level of service, for example, replacing a light bulb with one that uses less energy to produce the same amount of light.

Environmental Justice Communities: Those communities that have been exposed to environmental or health hazards, such as air pollution, water contamination, or chemical explosions. Most often, these are areas with high levels of poverty that neighbor industrial plants or similar facilities that create or use potentially dangerous materials. For this reason, these communities are the focus of activities to ensure that dangers are addressed, negative health impacts are reduced, and there is greater equality in exposures by racial or economic measures.

Fossil Fuels: Energy sources formed from decaying plant or animal matter inside the earth's crust over very long periods of time. Examples of fossil fuels include petroleum, natural gas, and coal. See also "nonrenewable energy."

Green Building: A method by which buildings are constructed to be resource-efficient and to have a reduced environmental impact. This method is known as "green construction" or "sustainable building."

Green Economy: The collection of industry activity that is focused on green production, investment, and services. It is a subset of the total economy.

Green Enhanced-Skills Occupation: A term employed by the Occupational Information Network (O*NET) to designate occupations that existed before the development of green practices and technologies but are likely to undergo significant changes as the green economy grows. These changes could include new or different credentials, knowledge, skills, or work tasks. Construction and building inspectors are an example of a green enhanced-skills occupation. 106

Green Increased-Demand Occupations: A term used by the Occupational Information Network (O*NET) to designate occupations that are likely to be in greater demand as a result of green practices and technologies but are unlikely to experience significant changes in the work required or the qualifications needed. First-line supervisors of agricultural and horticultural workers are an example of a green increased-demand occupation. ¹⁰⁷

Green Industry: An employment sector that contains companies that produce parts, products, or services related to the overall green economy, such as renewable energy production, energy auditing, or natural resource management.

Green Jobs: Broadly, jobs that restore, protect, or conserve the natural environment. (For statistical purposes, the U.S. Department of Labor's Bureau of Labor Statistics defines green jobs as either 1) jobs in businesses that produce goods or services that benefit the environment or conserve natural resources or 2) jobs in which workers perform duties that make the production process of their business establishment more environmentally friendly or use fewer natural resources.)

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GLOSSARY OF TERMS CONTINUED

Greenhouse Gas Emissions: The release into the earth's atmosphere of gases that trap heat. Some of these gases, such as carbon dioxide and methane, are produced naturally, but their rate of release is greatly increased as a result of human industrial activity. Other greenhouse gases, known as fluorinated gases, are produced solely through human industrial activity. ¹⁰⁸

Income Statement: A document that assesses the financial performance of a business during a given period, usually a portion of a fiscal year. An income statement is also referred to as a "profit and loss statement" or a "statement of revenue and expense."

Industry Association: An organization that represents, supports, and protects the interests and rights of the employers and/or employees in a particular employment sector. Associations' goals are typically to strengthen the industry's capacity and respond to the members' needs.

Inside Electrician: A type of electrician. Inside electricians perform electrical installations, construction, maintenance, repair, and service. They work on electrical construction projects ranging from single-family residences to state-of-the-art industrial plants. They install conduits and wire lighting, switches, converters, and complex computerized systems.¹⁰⁹

Job Board: An online or physical location where job openings are posted.

Journeyman (**Journeywoman**)/**Journey Level:** A worker who has completed an apprenticeship and is considered to be well-qualified to perform the tasks in a specific trade.

Leadership in Energy and Environmental Design (LEED): A certification which is a professional credential for those working in green building and is administered by the Green Building Certification Institute. There are several versions of LEED, depending on level and type of expertise. For more information visit http://www.gbci.org/main-nav/professional-credentials/credentials.aspx.

Licensed: Many states require that proprietary schools obtain a state-issued license in order to operate, conduct courses, and issue certificates of completion.

Median: A number at the midpoint in a range of numbers. For instance, an income of \$40,000 in a list where one half of the earnings are greater than that amount and the other half are below that amount.

Mentor: Typically a more experienced individual who guides another person's (the "protégé's") development to achieve a specific career goal.

New and Emerging Occupations: A term used by the Occupational Information Network (O*NET) to designate occupations involving work that is significantly different from the work performed in existing occupations. The occupations don't fit within the existing job definitions in the O*NET Standard Occupational Classification system. These occupations are often created by changes in technology, society, markets, or regulation.

GLOSSARY OF TERMS CONTINUED

One-Stop Career Center: A center that offers career counseling, training referrals, job listings, and similar employment-related services. These centers deliver services based on an individual's particular circumstances. All states have these centers, although they may go by different names locally and by state. Customers can visit a center in person or connect to the center's information through PC or kiosk remote access.

Partnership: A business entity with two or more owners who share in its profits and/or losses.¹¹¹

Protégé: An individual who obtains guidance and advice related to her training and career goals from a person with more experience (a "mentor").

Reasonable Accommodation of a Disability: Any change in the work environment or how work is customarily done to help a person with a disability apply for a job, perform the duties of a job, or enjoy the benefits and privileges of employment. An individual with a disability may need work station changes, special software or technology, or other accommodations in order to assist her in conducting her work.

Renewable Energy: Energy that comes from natural resources, such as sunlight, wind, rain and tides, and geothermal heat, which are constantly replenished. Types of renewable energy sources include solar power, wind energy, geothermal energy, wave energy, tidal energy, hydropower, and biomass energy. See also "alternative energy."

Retrofit: The addition of new technology or parts into older systems with the goal of improving those systems, such as enhancing the energy efficiency of an old building.

Revenue: The amount of money that a business or other organization earns during a given period through the sale of goods or services.

Self-Sufficiency: The ability to provide for oneself without public subsidies and/or private/informal assistance. Tools such as the Self-Sufficiency Standard (SSS) help define self-sufficiency through a measure that calculates how much income a working family needs to meet its basic expenses (including housing, child care, food, health care, transportation, and taxes), depending on where they live and family size and composition. ¹¹²

Solar Energy: The energy radiating from the sun that can be captured to provide electricity, power devices, and heat water and spaces.

Sole Proprietorship: A type of business entity that is owned and run by one individual.¹¹³ There is no legal distinction between the owner and the business. The owner has "unlimited liability," as she is responsible for the debts of the business.

Source Reduction Practices: Strategies to minimize waste, such as by keeping water in a reusable container rather than disposing of multiple water bottles or reducing packaging for products.

Sustainable: Practices that don't deplete or permanently damage natural resources.¹¹⁴ Organic farming, a type of agriculture that avoids the use of chemicals that harm the environment, is an example of a sustainable practice.

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GLOSSARY OF TERMS CONTINUED

Telecommuting: Working at a location separate from a company office or job site using technologies such as the Internet, cellular telephones, and video conferencing. Telecommuting diminishes the need to travel to and from a particular work site to perform an equal level of work.

Transferrable Skills: Those skills that can be carried from one job to another. For instance, good problem-solving ability is welcome across industries. These are also sometimes referred to as "portable" skills.

Vocational Education: Organized educational training programs that prepare individuals for a particular occupation by providing practical skills and experience. Fields of study include health care, construction, graphic/computer design, electronics, culinary arts, travel and tourism, etc. See also "career and technical education."

Weatherization: The process by which buildings and homes are modified to regulate heating and/or cooling most often to reduce energy consumption and/or make the structure more energy efficient.

Wind Energy: Energy produced by the movement of wind. Wind energy can be used to drive mills and pumps, as well as the generators of electric power.

You may find these resources helpful in planning for a green career. Web links can change, so you may need to do Internet searches to find the latest information.

GENERAL GREEN GLOSSARIES

NON-GOVERNMENT RESOURCES

- Green for All. Green for All's guide titled "Green Speak: A Glossary of Terms Used in Green Business" provides useful definitions for terminology and buzzwords frequently used within the green industry.
 - http://www.greenforall.org/resources/green-speak-a-glossary-of-terms-used-in-green-business
- Job-Hunt.org. This site provides a green industry glossary that defines basic green terms and technical terms associated with specific industries. http://www.job-hunt.org/green-jobs-job-search/green-industry-glossary.shtml

INDUSTRY-SPECIFIC GLOSSARIES

GOVERNMENT RESOURCES

- California Energy Commission. The commission provides a glossary of energy-related terms. http://www.energy.ca.gov/glossary
- U.S. Department of Energy (DOE). DOE provides several glossaries, including a glossary of energy-related terms at http://www.eia.doe.gov/glossary/index.html and a glossary of solar energy terms at http://wwwl.eere.energy.gov/solar/solar_glossary.html.
- U.S. Department of the Interior (DOI), Bureau of Ocean Energy Management, Regulation and Enforcement (BOEMRE). BOEMRE provides a glossary of renewable energy terms. http://www.mms.gov/offshore/RenewableEnergy/Definitions.htm

NON-GOVERNMENT RESOURCES

 Windustry. Windustry provides a glossary of common terms related to wind energy. http://www.windustry.org/glossary

This list is not exhaustive and inclusion on this list does not represent an endorsement of any institution or program. While all efforts are made to ensure that hyperlinks are working and the information contained at the referenced websites is useful, the authors do not endorse, take responsibility for, or exercise control over the websites or organizations, nor do they vouch for the accuracy or accessibility of the information contained on these sites. The authors also cannot authorize the use of copyrighted materials contained in these sites. Users must request such authorization from the sponsor of the website.

End Notes

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