

The Make-Up of the [Green Workforce](#)

As green industries and workplaces evolve more job and occupational information will become available. The below is a first-step in thinking about the make-up of new jobs and their impacts on geographic workforces. Used for understanding and harnessing the local human capital potential needed for a green workforce, this kind of foundation content provides a framework for recruitment, hiring, workforce planning and training, and community economic and workforce development.

Workforce Strategies' [green demographics](#) provide employment counts for 119 of the SOC occupations that are expected to fill the green jobs. These demographics provide critical insight about local strengths and weaknesses as well as workforce information for supporting how-to strategies for shifting labor toward greenness.

The Evolving Structure of Our Green Workforce

Given expected shifts in local economies toward greenness, now is a good time to start at ground level and begin to understand how the make-up of the workforce will change. Not only will this information increase your knowledge, but it has very practical use for a human capital professional.

As a result of the national effort to build a green economy – new jobs, skills, and occupations are evolving and emerging. Consequently, there is research going on in the country to better understand the impact of the green economy and its related technologies on the workforce. Below is a framework for better understanding expected changes in occupation and job structure as the workforce becomes greener.

Recent research from the national center for the development of the Occupational Information Network has stratified the make-up of the green workforce into three occupational categories. It includes 91 new and emerging jobs that are not yet classified according to the Standard Occupation Classification system (SOC). In addition, it includes 124 SOC occupations that already exist within local economies and workplaces whose qualifications and skills are being transformed to meet green job requirements. These occupations are included in the demographic data sets.

From computer, construction, and engineering talent to technicians, farming and forestry, manufacturing and production, science, and transportation workers, the demographics show employment counts for those who have the skills and capacity for retrofitting buildings, as well as building smart grids, wind power, mass transit, and more. They provide an understanding of the local employment patterns for building and re-skilling to a green workforce.

The first occupational category is: “Green Increase Demand”. It includes occupations whose demand will increase. For these 64 SOC occupations, the work requirements and tasks will generally remain the same. Examples are Chemical Technicians, Customer Service Representatives, Hydrologists, and Industrial Engineers.

The second occupational category is “Green Enhanced Skills”. For these 60 SOC occupations there will be a significant change in the work and worker requirements. This means that the tasks, skills, and knowledge as well as credentials for these occupations will change. However, their essential job purpose will remain the same. In addition, it is not known if there will be an increase in employment demand for these kinds of workers. Examples of occupations that will require green enhanced skills include: Machinists, Marketing Managers, Soil and Water Conservationists, Training and Development Specialists, and Urban and Regional Planners.

The third category is referred to as “Green New and Emerging” occupations. Not yet classified under SOC, these 91 occupations will emerge as a result of unique work and worker requirements. This means that green economic activities and technologies will create new kinds of jobs and the related occupation demands will require totally different work and skills. While all of these occupations are considered new or emerging, in some cases they will be spawned from existing occupations. Within this category, as many as 18 new green technologist occupations are expected including: Geospatial Information Scientists and Technologists, Manufacturing Engineering Technologists, and Nanotechnology Engineering Technologists. Other Examples of “Green New and Emerging” occupations are: Biofuels Production Managers; Climate Change Analysts; Investment Underwriters; Carbon Capture and Sequestration Systems Installers; and Mechanical Engineering Technologists.

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