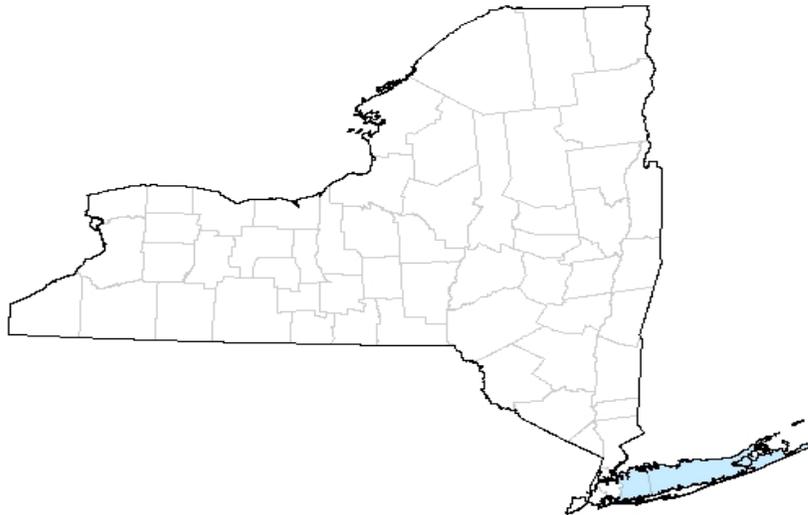




New York State Green Jobs Survey

Report for the Long Island Region



**New York State Department of Labor
Division of Research & Statistics**



New York State Green Jobs Survey

Long Island Report

Introducing the Green Jobs Study

As part of the American Recovery and Reinvestment Act of 2009, the New York State Department of Labor was awarded a \$1.1 million grant from the United States Department of Labor to conduct research on the green labor market in New York State.

This research goes hand-in-hand with New York State’s commitment to increasing energy efficiency and maximizing growth in its clean energy sector, in keeping with the Energy Efficiency Portfolio Standard; the Renewable Portfolio Standards; the Regional Greenhouse Gas Initiative; and the State Energy Plan.



As one part of the study, the New York State Department of Labor and its research partners surveyed 20,000 businesses in late 2010 to determine the number and types of green jobs in the State. Two thousand four hundred and thirty firms of those businesses were in New York City.

Questions Answered

Policymakers, researchers and the public have a variety of questions about the green labor market across New York State. To get answers, the Department of Labor surveyed businesses in industry clusters where green jobs were likely to be found. The Department of Labor sought out companies that produce goods or deliver services that increase energy efficiency or generate renewable energy. The resulting information was used to develop answers to the questions below.



- [How many firms in this region have green jobs?](#) 4
- [How many workers in this region have green jobs?](#) 5
- [Do firms expect their green employment to change?](#) 6
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Defining Green

While “green” touches nearly every sector of the economy (such as agriculture, education, energy, transportation, etc.), New York State’s Green Jobs Survey focused on two spheres of green economic activity: **Renewable Energy** and **Energy Efficiency**.

Here are a few definitions used in the New York State Green Jobs Survey:

- **Green economic activities:** Activities that produce goods or deliver services that increase energy efficiency or generate renewable energy.
- **Green employer:** An employer engaged in a targeted green economic activity, such as retrofitting buildings or generating power from wind energy.
- **Green employee:** A worker primarily engaged in producing green products or services, such as a photovoltaic installer, an insulation worker or a wind turbine assembler.

Future research may include other green sectors such as pollution abatement or waste remediation, which would require more expansive green definitions.

Industry Spotlight

The Green Jobs Survey was sent to firms in several industry clusters. Its findings focus on the following clusters that reported a significant green component:

- ✓ **Construction Trades**
- ✓ **Building Services**
- ✓ **Component Manufacturing**
- ✓ **Professional Services**

Research Partners

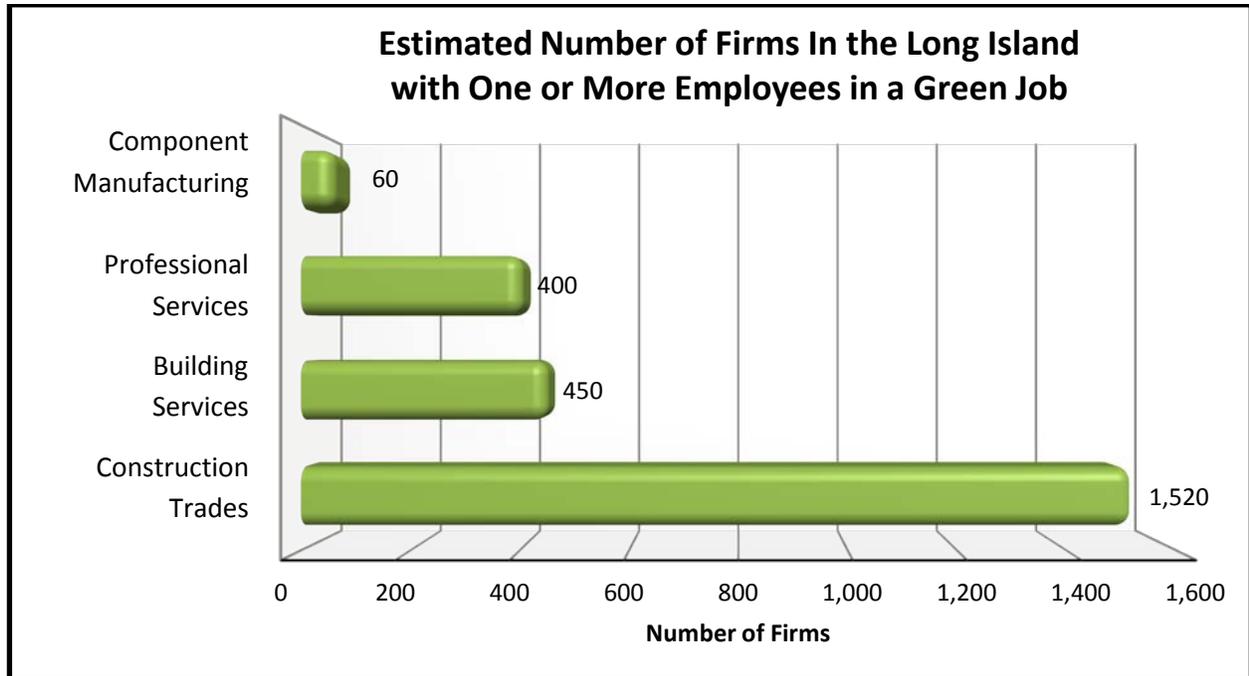
- ***The City University of New York’s Graduate Center’s New York City Labor Market Information Service (NYCLMIS)***
- ***The University at Albany’s College of Nanoscale Science and Engineering’s Energy and Environmental Technology Applications Center (E2TAC)***
- ***Stony Brook University’s Advanced Energy Center (AEC)***

Survey Conventions

While every effort was made to ensure that the survey findings are representative, please note:

- As with all surveys, results are subject to sample and non-sample sources of error
- Estimates are based on employer self-identification and have not been independently verified
- Adding regional firm and employment estimates may not equal state totals
- Firm and employment estimates are rounded to the nearest ten
- Percentages are calculated from unrounded data and rounded to the nearest percentage point

**New York State Green Jobs Survey Finding
In Long Island,
How Many Firms in Long Island Have Green Jobs?**



Regional Firms	Component Manufacturing	Professional Services ¹	Building Services	Construction Trades
Number with Green Jobs	60	400	450	1,520
Number in Cluster	410	2,060	2,750	6,510
Percent with Green Employees²	14%	20%	16%	23%

In Long Island, there are approximately 2,430 firms that have one or more employees primarily engaged in producing goods or delivering services that increase energy efficiency or generate renewable energy.

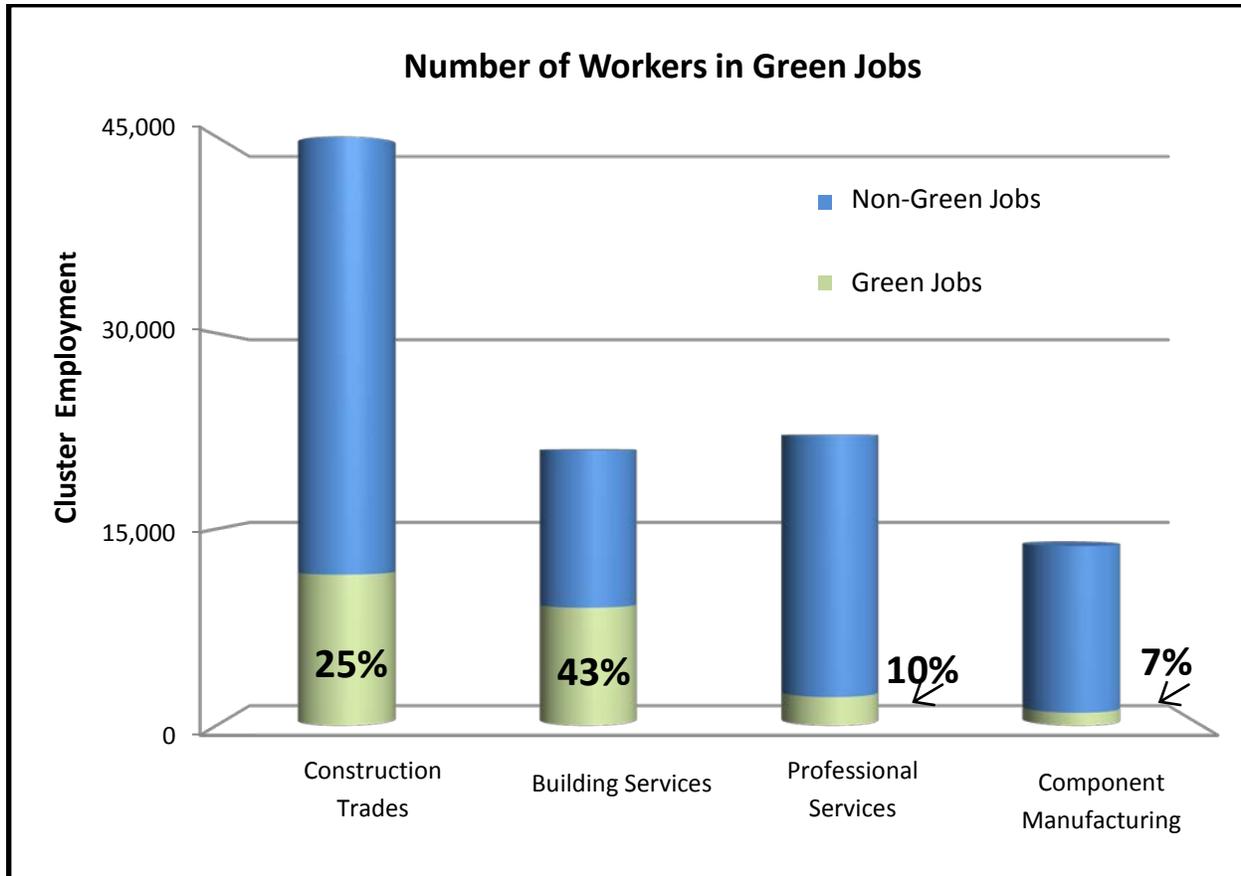
Construction Trades has the largest share of firms with green workers with 23%, while Professional Services is second with 20%. Building Services comes next with 16% and Component Manufacturing is last with 14% green employment.

The smallest industry cluster listed above – Component Manufacturing – also has the fewest firms with green employment (60 firms) whereas the largest – Construction Trades – has the most (1,520 firms). Building Services is the second largest cluster and has the second highest number of firms with green employment (450 firms), while Professional Services ranks third on both measures.

¹The Professional Services industry cluster excludes legal services.

²Percentages are based on unrounded figures.

**New York State Green Jobs Survey Finding
In Long Island,
How Many Workers in the Long Island Have Green Jobs?**



Region	Construction Trades	Building Services	Professional Services	Component Manufacturing
Green Employment	11,500	9,020	2,180	980
Cluster Employment	45,730	21,050	22,200	13,700

In Long Island, nearly 23,680 workers are employed in green jobs. Construction Trades has the greatest number of workers (45,730) and the largest number of workers in green jobs (11,500), but it only has the second largest occurrence of green employment (25%).

Although, the largest occurrence of green employment exists in Building Services (43%), it comes in second in the overall number of workers in that sector (9,020). Workers engaged in green economic activity make up 10% (2,180) of Professional Services' total employment of 22,200.

Component Manufacturing is the smallest of the four clusters, with only 13,700 workers. This cluster also has the fewest workers employed in green jobs (980) and has the smallest occurrence of green employment (7%) in Long Island.



**New York State Green Jobs Survey Finding
In Long Island,
Do Firms Expect their Green Employment to Change?**

**Expected Over-the-Year Change in Green Employment
In Long Island**

One Year Change	Building Services	Construction Trades	Component Manufacturing	Professional Services
For firms with green jobs, what is their expected change in green employment?				
Grow Larger	36%	28%	61%	28%
Unchanged	53%	37%	21%	65%
Become Smaller	0%	7%	3%	5%
Don't Know	11%	28%	15%	1%
Number of Firms	450	1,520	60	400
For firms without green jobs, do they expect to have green employment?				
Yes	3%	7%	1%	3%
No	74%	52%	78%	75%
Don't Know	23%	41%	21%	21%
Number of Firms	2,300	4,990	350	1,660

Firms with green jobs were asked if they anticipated their number of green jobs to change in the next year (grow larger, become smaller, remain unchanged). Firms which did not have green jobs were asked if they anticipate creating any green jobs in the upcoming year.

Among Long Island businesses with green jobs, Component Manufacturing firms are most likely to expect a growth in green employment, with 61% predicting growth in the next year. Thirty-six percent of Building Services firms expect growth in the next year, followed by Professional Services and Construction Trades with 28%.

The least common prediction among all four industry clusters was for a 'smaller' green workforce; less than 8% of the Long Island green firms in any cluster anticipate a loss of green jobs.

Among companies without green employment, those in the Construction Trades are most likely to predict an increase of at least one green job (7%). The most common prediction among non-green firms was no change in green employment with 78% of Component Manufacturing firms, 75% of Professional Services firms, and 74% of Building Services firms reporting that they were not planning to hire at least one green employee during the next year.



New York State Green Jobs Survey Finding
What are the Most Common Credentialing Agencies Preferred by Employers for their Green Jobs?

Leadership in Energy and Environmental Design (LEED)

Leadership in Energy and Environmental Design (LEED) is administered by the U.S. Green Building Council (USGBC). LEED offers certification for buildings and credentials for individuals. The Green Building Certification Institute (GBCI) administers LEED professional credentials in green building design, construction and maintenance, and neighborhood development. For more information about LEED credentials, visit www.gbci.org.

The Building Performance Institute, Inc. (BPI)

The Building Performance Institute, Inc. (BPI) is an independent non-profit organization that develops industry standards for residential energy efficiency retrofits and weatherization. BPI offers company accreditations and professional credentialing. Many professional certification types are available, including building envelope, manufactured housing, and multifamily. For more information, see www.bpi.org.

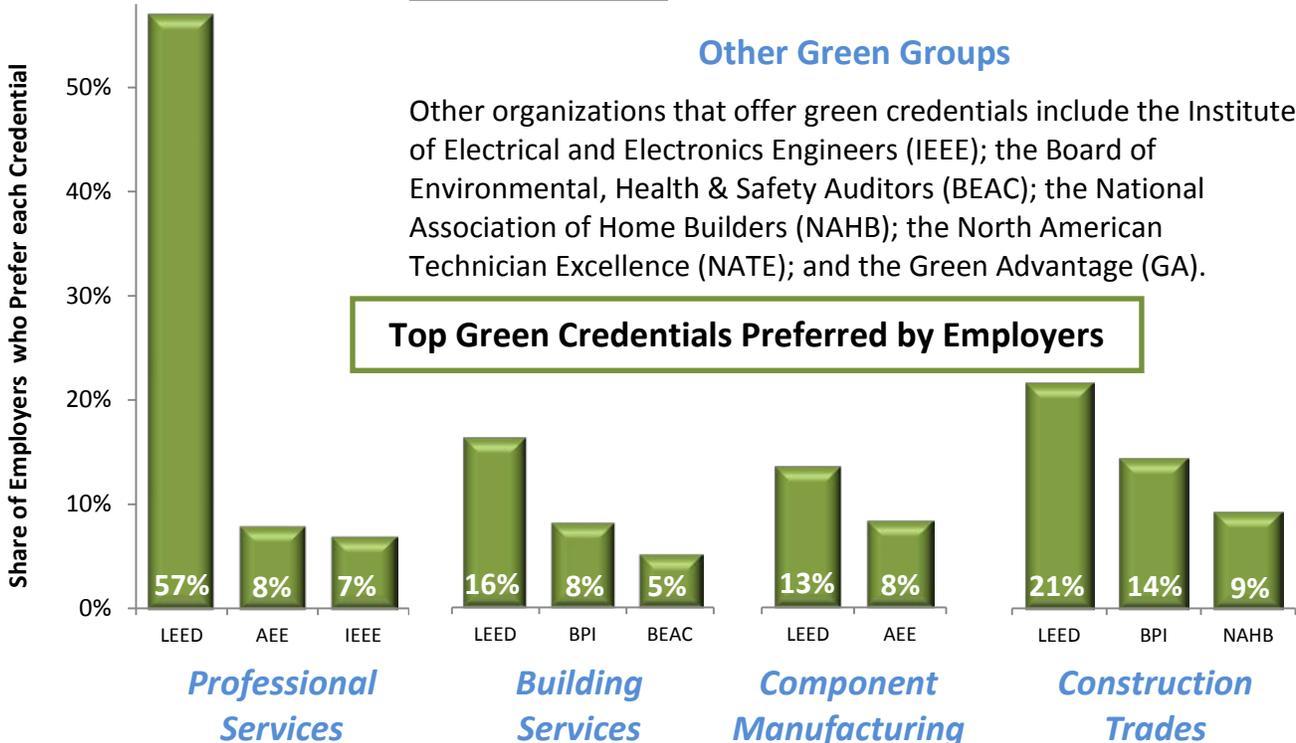
The Association of Energy Engineers (AEE)

The Association of Energy Engineers (AEE), a non-profit professional society with over 14,000 members, offers a broad range of professional certifications in the energy industry. AEE certification programs require candidates to pass written examinations as well as meet specific educational and/or experience criteria. To learn more, go to www.aeecenter.org.

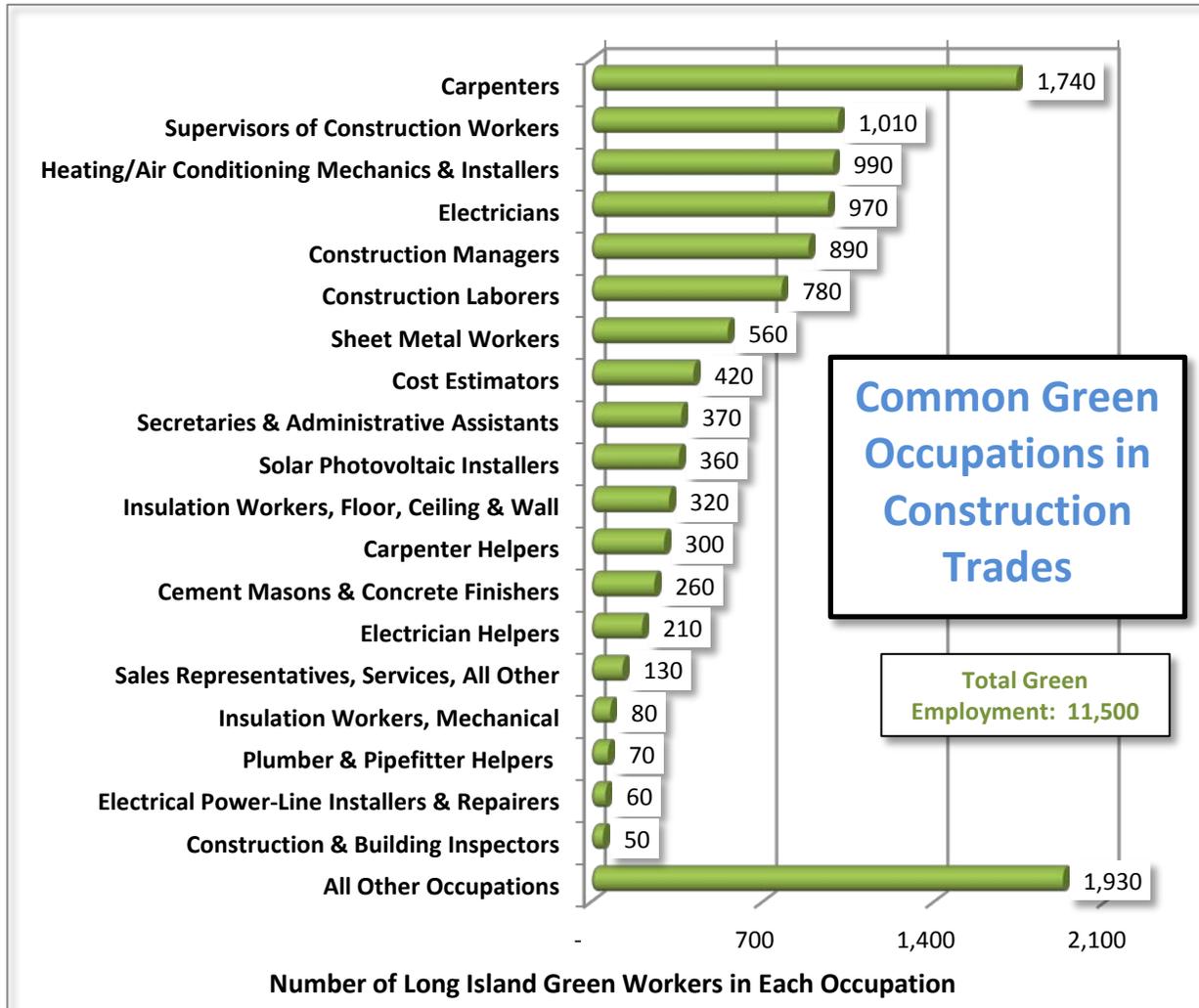
Other Green Groups

Other organizations that offer green credentials include the Institute of Electrical and Electronics Engineers (IEEE); the Board of Environmental, Health & Safety Auditors (BEAC); the National Association of Home Builders (NAHB); the North American Technician Excellence (NATE); and the Green Advantage (GA).

Top Green Credentials Preferred by Employers

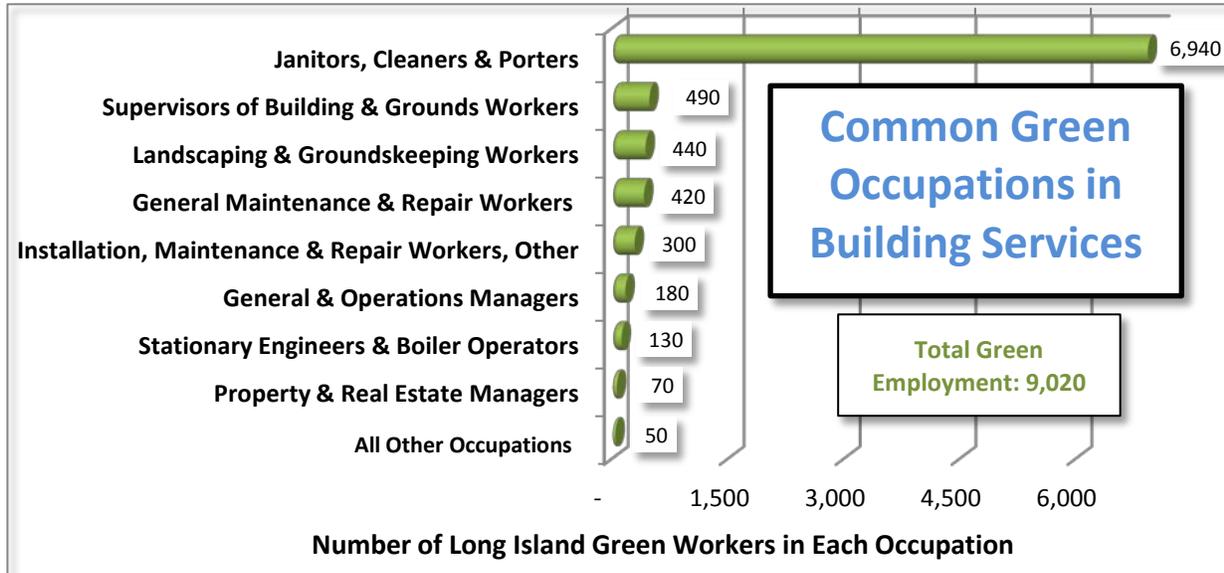


**New York State Green Jobs Survey Finding
In Long Island,
Which Occupations are Green, or Greening?**



In Long Island, green employment in the Construction Trades is dominated by one occupation, Carpenters. This occupation alone makes up 15% of sector employment in the region, almost twice as much as the next occupation on the list (Supervisors of Construction Workers).

**New York State Green Jobs Survey Finding
In Long Island,
Which Occupations are Green, or Greening?**

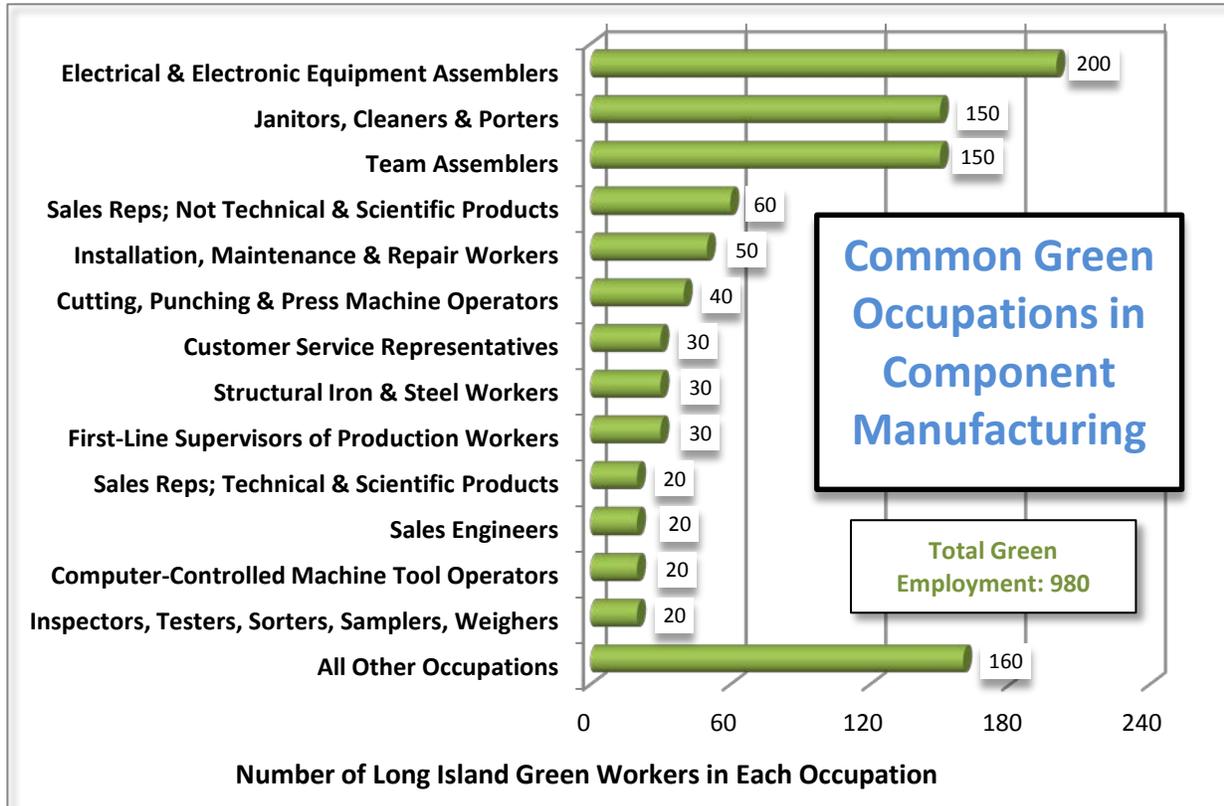


In Long Island, green employment in Building Services is dominated by one occupation, Janitors, Cleaners, and Porters. This occupation alone makes up a full 77% of sector employment in the region, fourteen times larger than the next occupation on the list (First-Line Supervisors of Building and Grounds Cleaning and Maintenance Workers).

How is Green Defined Differently in Building Services?

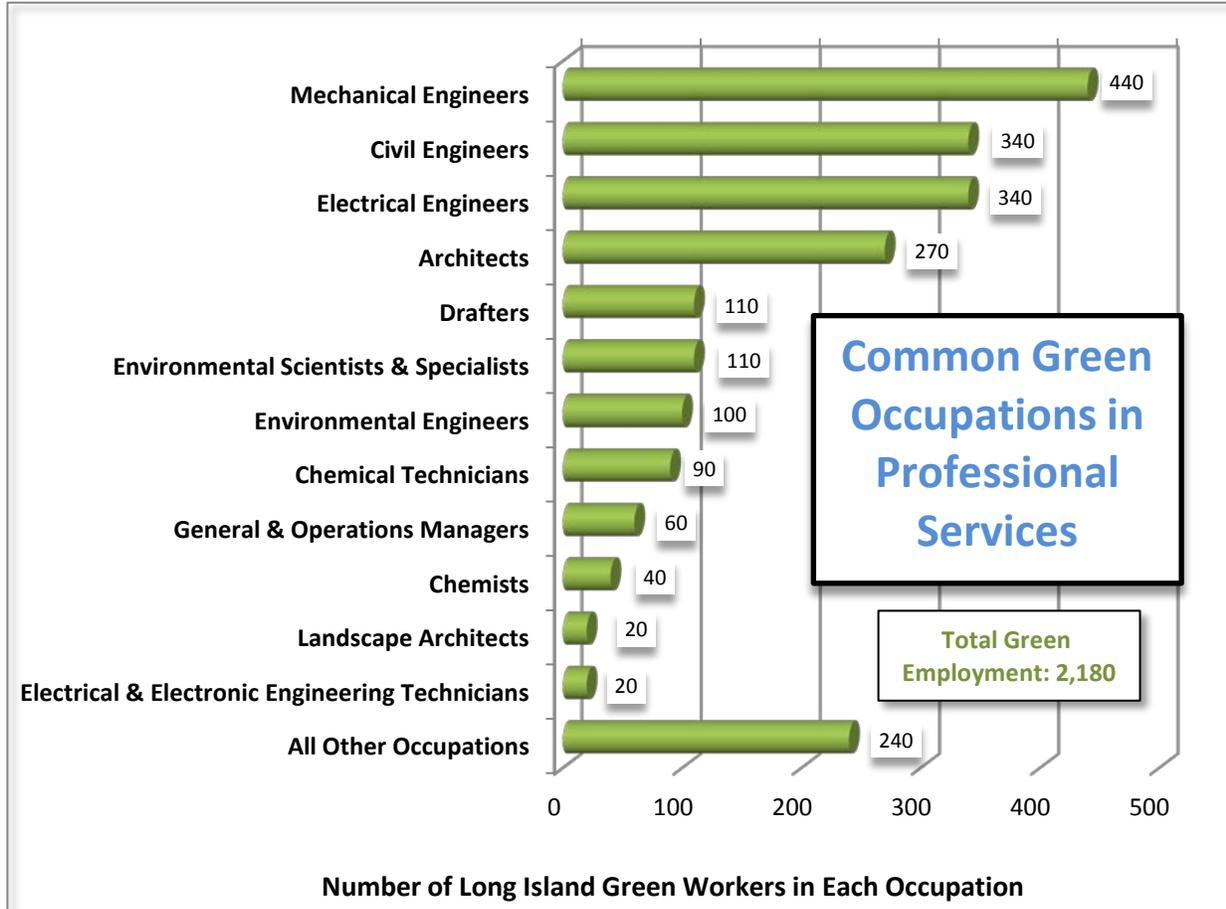
In Building Services, green is defined as helping buildings and facilities achieve greater energy efficiency, use new energy technologies, or achieve other environmental sustainability goals. For this cluster, people engaged in recycling and green cleaning were counted as green workers in the Green Jobs Survey.

**New York State Green Jobs Survey Finding
In Long Island,
Which Occupations are Green, or Greening?**



In Long Island, green employment in Component Manufacturing is dominated by three occupations – Electrical and Electronic Equipment Assemblers; Janitors, Cleaners and Porters; and Team Assemblers – which make up approximately half of sector employment in the region.

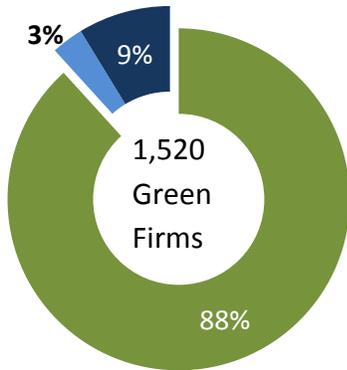
**New York State Green Jobs Survey Finding
In Long Island,
Which Occupations are Green, or Greening?**



In Long Island, green employment in the Professional Services cluster is concentrated in a few occupations. The four most common green occupations – Mechanical Engineers, Electrical Engineers, Civil Engineers, and Architects – account for almost two-thirds of the cluster’s green employment. All of these occupations are involved in delivering energy efficiency products and services.

**New York State Green Jobs Survey Finding
In Long Island,
Are Firms Able to Fill All Their Green Jobs?**

**The short answer – “In most cases, there's no problem.”
In New York State, most businesses have little difficulty
finding and hiring qualified employees for their green jobs.**

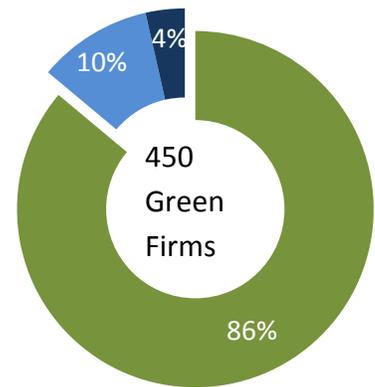


Construction Trades

Of the 1,520 green firms in Construction Trades in Long Island, 12% (180) have difficulty recruiting qualified green workers. 9% have difficulty recruiting for more than one occupation.

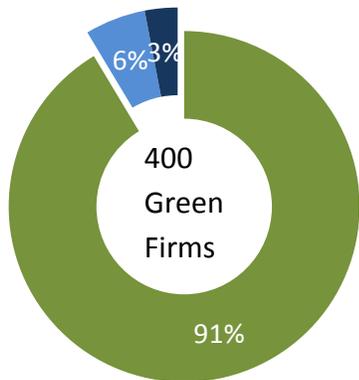
Building Services

Of the 450 green firms in Building Services in Long Island, 14% (60) have difficulty recruiting qualified green workers. 4% have difficulty recruiting for more than one occupation.



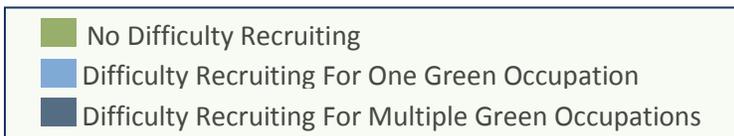
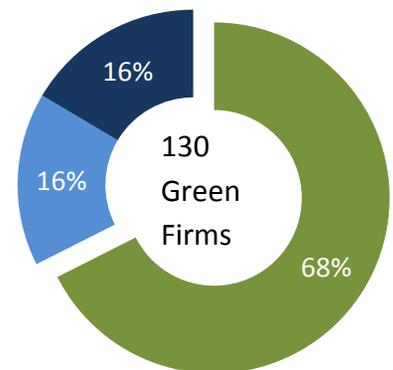
Professional Services

Of the 400 green firms in Professional Services in Long Island, 9% (30) have difficulty recruiting qualified green workers. 3% have difficulty recruiting for more than one occupation.

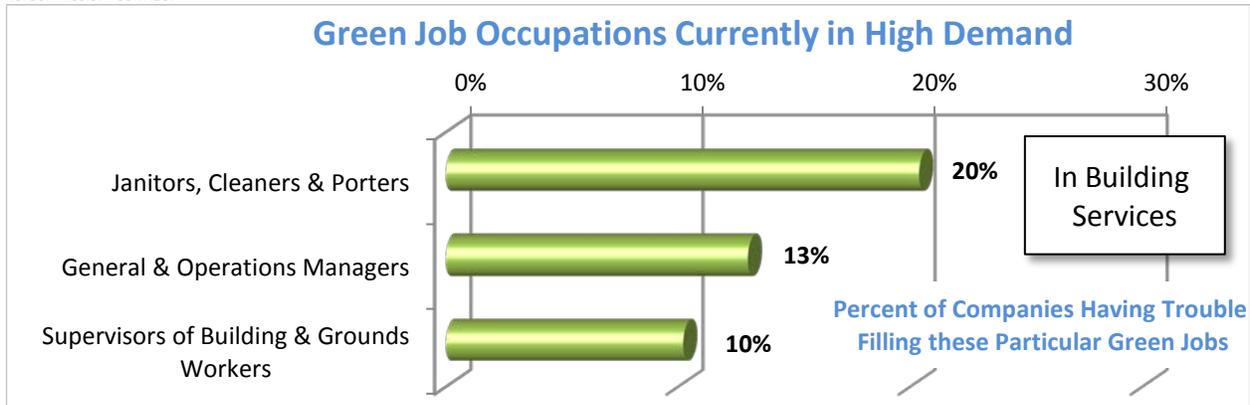


Component Manufacturing

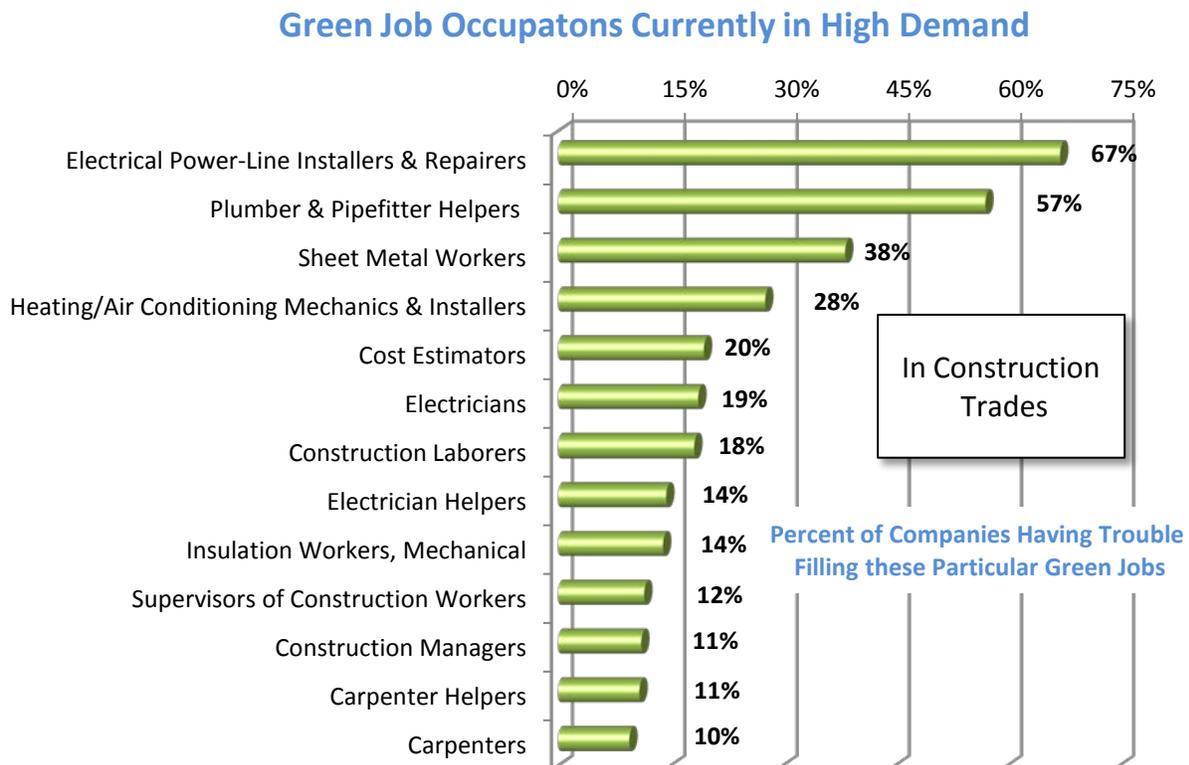
Of the 130 green firms in Component Manufacturing in Downstate New York (which includes the Long Island region), 32% (40) have difficulty recruiting qualified green workers. 16% have difficulty recruiting for more than one occupation.



**New York State Green Jobs Survey Finding
In Long Island,
Which Green Job Occupations are in Demand?**



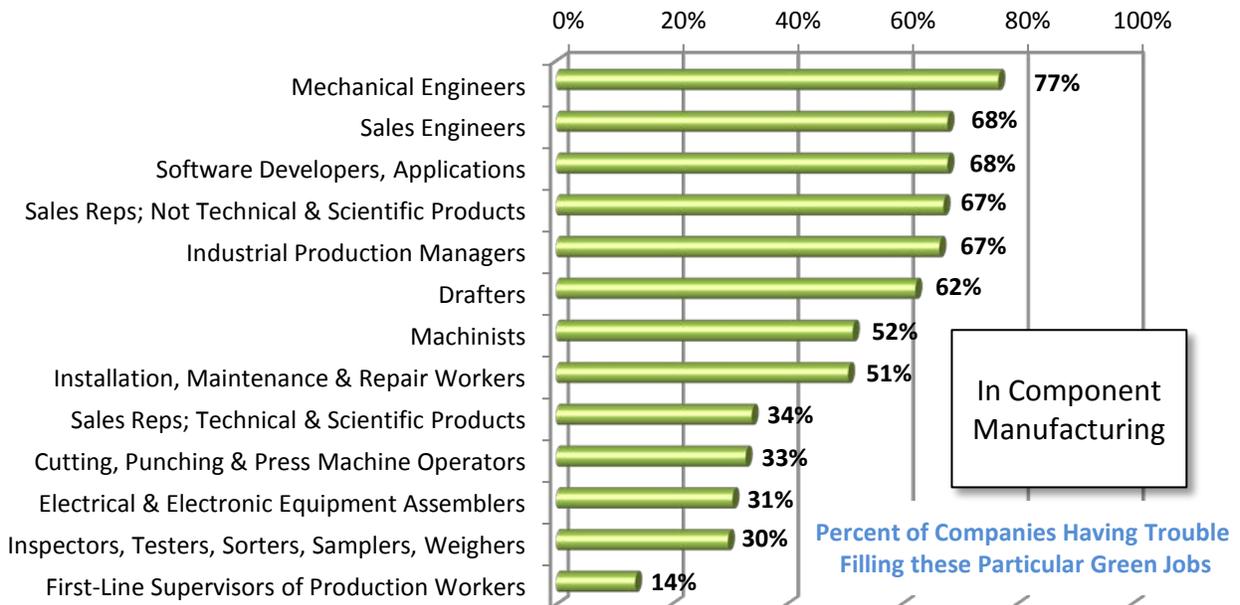
Of the Building Services companies in Long Island that employ or are looking to employ green Janitors, Cleaners and Porters, 20% are having difficulty filling these positions.



Sixty-seven percent of the Construction Trades firms in Long Island that employ or seek to employ green Electrical Power-Line Installers & Repairers have difficulty recruiting qualified green workers for these jobs. These workers install, dismantle, or move machinery and heavy equipment according to layout plans, blueprints, or other drawings.

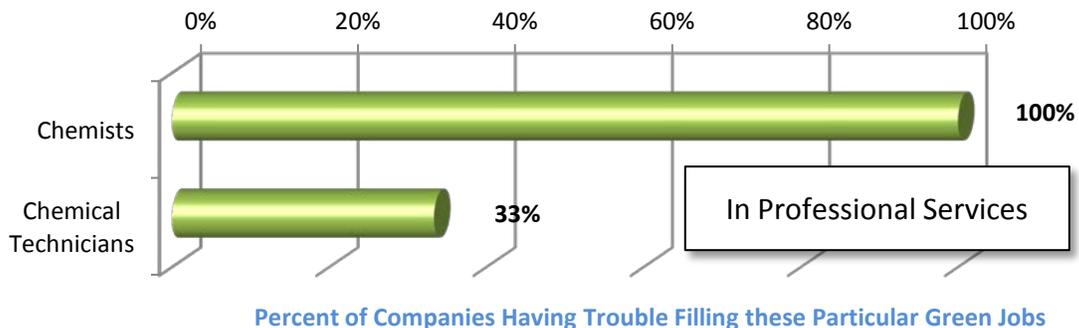
**New York State Green Jobs Survey Finding
In Long Island,
Which Green Job Occupations are in Demand?**

Green Job Occupations Currently in High Demand



Of the Component Manufacturing companies in Long Island that employ or are looking to employ green Mechanical Engineers, 77% are having difficulty filling these positions. These workers use hand-welding, flame-cutting, hand soldering, or brazing equipment to weld or join metal components or to fill holes, indentations, or seams of fabricated metal products.

Green Job Occupations Currently in High Demand

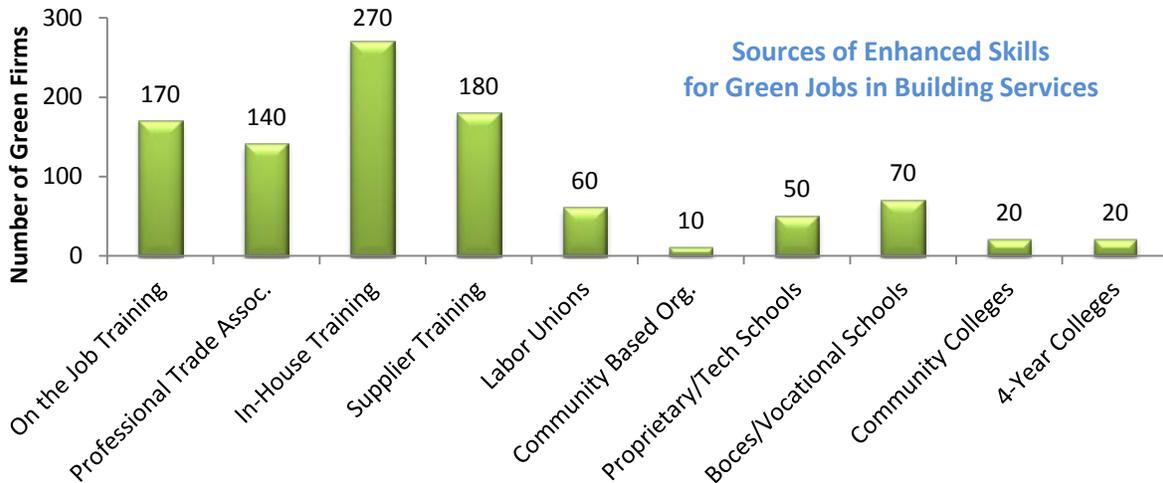


Almost every Professional Services firm in Long Island that employs or seeks to employ green Chemists is having trouble filling these positions. These workers conduct qualitative and quantitative chemical analyses or experiments in laboratories.

**New York State Green Jobs Survey Finding
In Long Island,
What is the Need for Additional Training?**

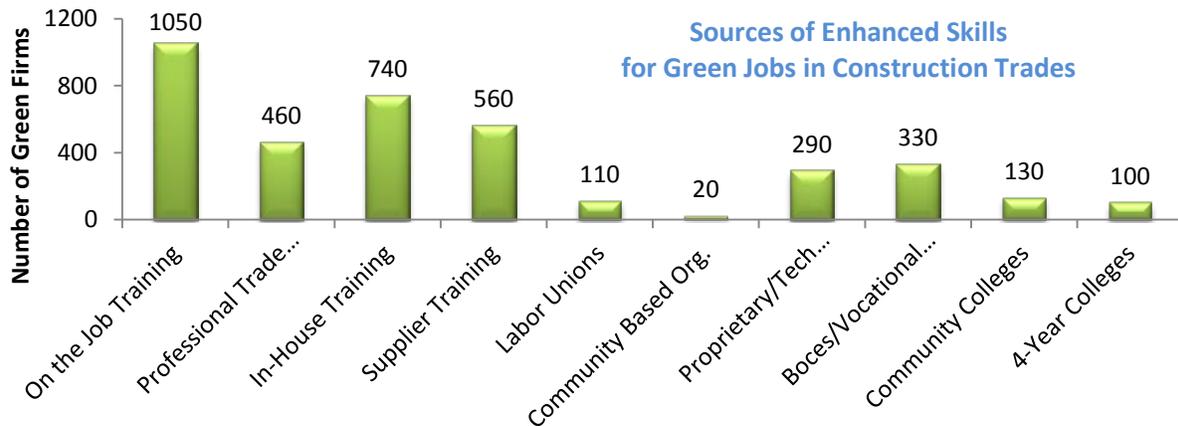
Building Services

In Building Services, 79% (360) of green firms require that their employees have some form of enhanced skills to deliver green services in Long Island. To train their employees, firms most often utilize in-house or supplier-based training programs.



Construction Trades

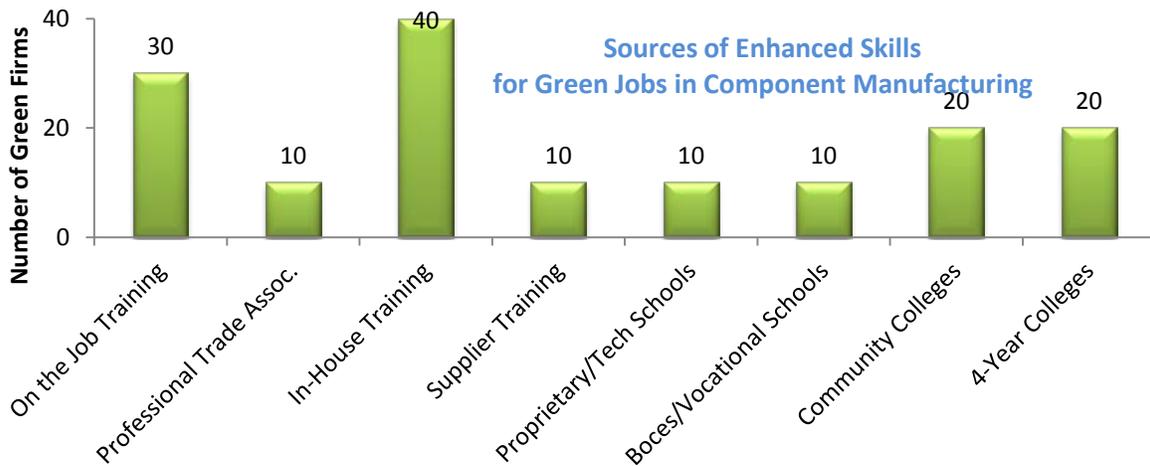
Approximately 78% (1,190) of green firms in Construction Trades require employees to have enhanced skills in order to produce green products or services. In Long Island, firms most often utilize on-the-job training, in-house training and/or supplier-based programs.



**New York State Green Jobs Survey Finding
In Long Island,
What is the Need for Additional Training?**

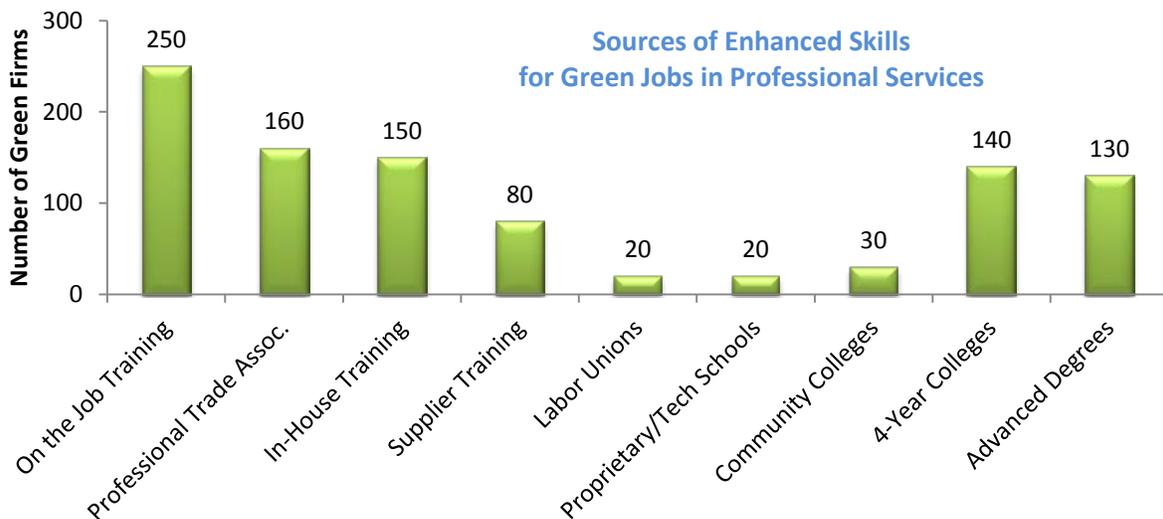
Component Manufacturing

The share of green Component Manufacturing firms in Long Island requiring that employees have enhanced skills to produce green products or services is 95% (60). To train their employees, firms most often utilize on-the-job training and/or in-house training programs.



Professional Services

Eighty-two percent (330) of green employers in Professional Services require that employees have enhanced skills to produce green products or services. In Long Island, firms most often utilize professional trade associations and/or on-the-job training.



New York State Green Jobs Survey Finding Which Green Activities are Businesses Engaging In?

Companies may participate in a wide variety of green activities, even within the same industry cluster. Of the 1,520 Construction Trades firms in Long Island with green jobs (see page 4), the overwhelming majority are engaged in energy efficiency (1,400).



*Since the categories are not mutually exclusive (some workers fall into both the Energy Efficiency and Renewable Energy categories), the green firm counts cannot be added together to get a total employment figure for an occupation. Rather, the sum of the green firm counts would overestimate the total number of green firms. Jobs Survey Finding #1 contains green firm estimates.

Green Activity Groups and Subgroups

Energy Efficiency includes Retrofitting and/or New Construction.

Renewable Energy includes Solar PV, Solar Thermal, Wind, Biomass, Geothermal and Hydro.

Operations include Meter Reading/Reporting, Performance Monitoring/Optimization, Retro-Commissioning and New Technologies.

Maintenance includes Renewable Energy Systems, Green Roofs/Landscaping and Indoor Air Quality.

Green Cleaning & Recycling has Green Cleaning and Recycling as distinct subgroups.