# The U.S. Solar Workforce



#### **Quick Facts**

- As of 2018, The United States has **242,343 solar workers**, defined as those who spend 50% or more of their time on solar-related work.
- Roughly 32% of all solar employment is reported to be in administrative, management, and professional positions; 38% in installation and repair, 7% in manufacturing, and 15% in sales.
- Solar employment declined by nearly 8,000 jobs in 2018, or 3.2 percent, since 2017. Overall, the solar workforce has grown 159 percent since 2010, adding nearly 150,000 jobs.
  - The decline in solar jobs is largely attributable to the solar tariffs that the Trump administration imposed in early 2018 and the uncertainty that solar companies faced
- Solar jobs increased in 29 states in 2018, including many states with emerging solar markets. States with the highest employment gains include Florida, Illinois, Texas, and New York State.
- The manufacturing sector makes up 14% of the solar workforce (33,700 jobs).
- Overall, companies said they require a Bachelor's degree for 21% of new hires; a vocational or technical certificate for 14% of new hires; and an Associate's degree for 9%.
- In 2018, there were 63,806 women working in solar, or 26.3% of the workforce
- According to The Solar Foundation's 2018 National Solar Jobs Census, the **median wage for mid-level solar installers is \$32/hour for electricians and \$28/hour for non-electricians**, well above the \$18 national average.
- For those who are willing to pursue some training in solar-specific technologies, it's possible to move into sustainable, well-paying careers in as little as 12 months. An in-depth case study by The Solar Foundation found that entry level installers were typically promoted within 6 to 12 months of hire, with an average pay increase of 45%.



## The Solar Workforce Opportunity

In the next five years, the solar energy market in the United States may more than double in size. In order to meet the expected demand, the solar workforce will require tens of thousands of new employees. SEIA members are hiring more workers every year and a well-equipped, diverse talent pool is central to their success. Workforce development that reflects the diversity of the communities we aim to serve is one of our member companies' highest priorities.

Solar provides an opportunity for workers from all education levels. Approximately 79% of solar companies

do not require a bachelor's degree for new hires. For those who are willing to pursue some training in solar-specific technologies, it's possible to move into sustainable, well-paying careers in as little as 12 months.

We must ensure that people of all races, genders, ethnicities, and economic backgrounds have access to both solar jobs and solar energy itself. Everyone deserves access to the incredible benefits of solar energy — cleaner air, lower energy bills, and well-paying jobs.

www.seia.org July 2019



### **Solar Workforce Demographics by Sector in Comparison to Other Industries**

	Female	Gender Non- Binary	Latino or Hispanic	American Indian or Alaska Native	Asian	Black or African American	Native Hawaiian or Other Pacific Islander	White	Two or More Races	Veterans	55 and Over
Solar Installation and Project Development	24.5%	1.0%	17.3%	1.0%	7.1%	7.7%	1.3%	73.7%	8.9%	7.5%	9.1%
U.S. Construction	9.1%	-	29.8%	-	1.9%	6.1%	-	88.8%	-	7.3%	21.8%
Solar Wholesale Trade & Distribution	35.9%	0.1%	21.4%	1.3%	9.2%	5.7%	2.8%	59.3%	11.6%	7.2%	9.9%
U.S. Wholesale Trade	29.9%	-	16.9%	-	5.8%	9.3%	-	82.4%	-	7.8%	26.4%
Solar Operations & Maintenance	25.5%	1.6%	15.2%	0.4%	8.5%	8.3%	0.5%	79.3%	3.7%	8.1%	9.2%
U.S. General Repair & Maintenance	11.9%	-	25.4%	-	3.9%	8.9%	-	83.0%	-	14.3%	22.9%
Solar Manufacturing	28.3%	4.3%	20.9%	1.0%	15.5%	8.8%	1.5%	56.8%	13.3%	10.2%	14.3%
U.S. Manufacturing	29.5%	-	16.6%	-	7.1%	10.1%	-	79.9%	-	7.9%	24.9%
Solar All Others	33.6%	1.2%	15.5%	1.1%	11.1%	4.6%	0.8%	79.1%	6.0%	5.3%	16.7%
SOLAR OVERALL	26.3%	1.4%	16.9%	1.1%	8.5%	7.6%	1.2%	73.3%	8.3%	7.8%	10.5%
U.S. WORKFORCE OVERALL	46.9%	-	16.9%	-	6.2%	12.1%	-	78.4%	-	6.6%	21.1%

The solar industry has been one of America's leading job creators over the past decade, but like many high-growth sectors, it does not yet reflect the country's diversity in the demographic makeup of its employees.

Fortunately, a growing number of industry leaders are making it a top priority to improve the representation of women, people of color, the LGBTQ community, and veterans among their staff and leadership teams.

# **About SEIA**

The Solar Energy Industries Association (SEIA®) is the driving force behind solar energy and is building a strong solar industry to power America through advocacy and education. As the national trade association for the U.S. solar energy industry, which employs more than 242,000 Americans, we represent all organizations that promote, manufacture, install and support the development of solar energy. SEIA works with its 1,000 member companies to build jobs and diversity, champion the use of cost-competitive solar in America, remove market barriers and educate the public on the benefits of solar energy.