

# NATIONAL SOLAR JOBS CENSUS 2013

The *National Solar Jobs Census* series is a product of The Solar Foundation®, an independent 501(c)(3) nonprofit organization whose mission is to increase understanding of solar energy through strategic research that educates the public and transforms markets. First conducted in 2010, the *Census* surveys solar employers and quantifies solar jobs across all solar technologies and industry subsectors. Our inaugural *Census* established the first credible employment baseline for the domestic solar industry. Since this industry continues to undergo a period of rapid evolution and growth, The Solar Foundation® has found it critical to update its data annually. *Census 2013* represents the fourth annual installment of current employment figures and projected growth in the United States solar industry. Over the four years covered by the *Census* series, we have found that solar employment has grown by 53%, representing nearly 50,000 new solar jobs.

## Record-Breaking Growth

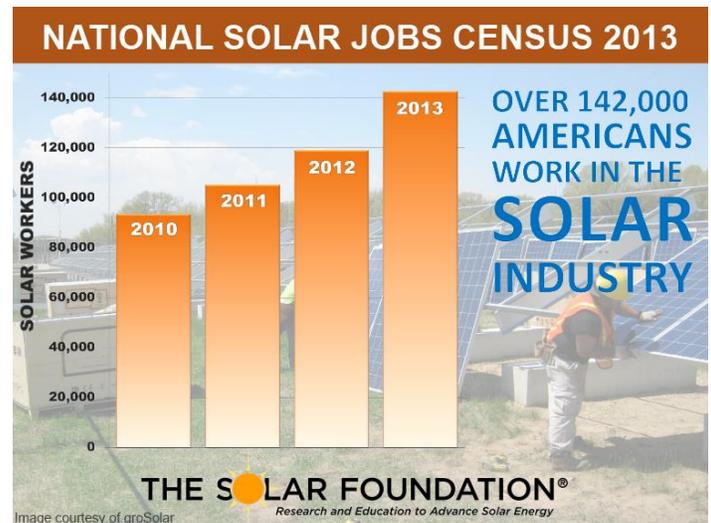
The U.S. solar industry continues to remain a bright spot on the nation's employment landscape, providing opportunities for more than 142,000 workers at 18,000 locations in all 50 states and creating jobs at a rate ten times higher than employment growth in the overall economy.

As of November 2013, the national solar industry employed an estimated 142,698 solar workers – defined as those workers who spend at least 50% of their time supporting solar-related activities. This figure represents nearly 20% growth in employment over the previous year, showing that – for the first time ever – the solar industry exceeded the growth projections made in the previous year's report. During the period covered by *Census 2013*, average employment in the national economy grew at only 1.9%.

Seventy-seven percent of the nearly 24,000 additional solar workers are in newly-created positions, rather than existing jobs that have added solar responsibilities.



Image courtesy of First Solar



## What the Future Holds

Many employers remain optimistic about continued employment growth. Over the 12 months following the *Census 2013* survey period, 44.5% of solar firms expect to add solar workers, while fewer than 2% expect to cut workers. With the expected addition of over 22,200 new solar workers over the next year, employment in the solar industry is expected to grow by 15.6% during a period in which employment in the overall economy is expected to grow by only 1.4%.

The majority of these new opportunities are expected to be added in the installation sector (projected to grow by 21.1%), in "other" jobs that provide ancillary support to the solar industry (16.1%), and in solar sales and distribution (14.2%). Though domestic solar manufacturing has struggled in recent years, *Census 2013* estimates that employment in this sector will increase by 8.6% by November 2014.

## Continued Growth Across All Sectors

*Census 2013* shows that solar companies across all sectors increased their workforce. Installation firms continue to constitute the largest sector of employment in the solar industry, employing 69,658 solar workers. Over the last year, solar manufacturing employment did increase, though only about 100 jobs. Though this paltry growth may seem insignificant, this sector lost 8,000 jobs in 2012, making this growth a huge improvement over the previous year. Other sectors demonstrated impressive growth rates as well, with sales and distribution, project development, and “other” firms each adding a considerable number of solar workers in the last year. With the addition of almost 24,000 solar workers across all sectors since last year’s *Census*, the U.S. solar industry added an average of 56 workers each day.

Sector	2010 Jobs	2011 Jobs	2012 Jobs	2013 Jobs	2012 - 2013 Growth Rate	2014 Projected Employment	2013 - 2014 Expected Growth Rate
Installation	43,934	48,656	57,177	69,658	21.8%	84,331	21.1%
Manufacturing	24,916	37,941	29,742	29,851	0.4 %	32,429	8.6%
Sales and Distribution	11,744	13,000	16,005	19,771	23.5%	22,585	14.2%
Project Development	--	--	7,988	12,169	52.3%	12,529	3.0%
Other*	12,908	5,548	8,105	11,248	38.8%	13,064	16.1%
<b>Total</b>	<b>93,502</b>	<b>105,145</b>	<b>119,016</b>	<b>142,698</b>	<b>19.9%</b>	<b>164,938</b>	<b>15.6%</b>

\*Changes in the number of jobs in the “Other” category between years are not necessarily a reflection of a actual increases or decreases in employment, but may instead be due to changes in the types of jobs included in this category.

## Other Key Findings from Census 2013

- Approximately 91% of those who meet our definition of a “solar worker” (those workers who spend at least 50% of their time supporting solar-related activities) spent 100% of their time working on solar.
- Employers reported that newly created jobs are generally not entry-level positions. Just over half require at least some work experience related to the position, and 28% of jobs added over the last year required at least a bachelor’s degree. Only one in eight new positions required an associate’s degree or certificate from an accredited college.
- Wages paid by solar firms are competitive, with the average solar installer earning between \$20.00 (median) and \$23.63 (mean) per hour, which is comparable to wages paid to skilled electricians and plumbers and higher than average rates for roofers and construction workers. Production and assembly workers earn slightly less, averaging \$15.00 (median) to \$18.23 (mean) per hour, slightly more than the national average for electronic equipment assemblers.
- The solar industry is a strong employer of veterans of the U.S. Armed Services, who constitute 9.24% of all solar workers – compared with 7.57% in the national economy. Women are underrepresented in the solar workforce, comprising only 18.7% of solar workers. African Americans make up just under 6% of the solar workforce, though they represent over 11% of the total employed U.S. population. Solar employs a slightly larger proportion of Latino/Hispanic and Asian/Pacific Islander workers than the overall economy.

The full report can be downloaded for free at [www.thesolarfoundation.org/research/national-solar-jobs-census-2013](http://www.thesolarfoundation.org/research/national-solar-jobs-census-2013)

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