249,983 WORKERS SPENT THE MAJORITY OF THEIR TIME ON SOLAR-RELATED WORK IN 2019.

The U.S. has gained 156,000 solar jobs since 2010.

In 2019, 249,983 workers spent the majority of their time in solar and 344,532 workers spent some portion of their time in solar.

About 16,000 jobs at solar installation companies focused on battery storage.

SOLAR WORKFORCE DEMOGRAPHICS

Veterans make up 7.6% of solar workers, compared to 5.9% of the overall U.S. workforce.

Women 26%
Latino/Hispanic 17%
Asian 9%
Black/African American 8%
THE SOLAR JOB MARKET IN 2019

26% OF ALL SOLAR EMPLOYERS & 33% OF INSTALLERS & PROJECT DEVELOPERS SAID IT WAS \textbf{“VERY DIFFICULT”} TO HIRE QUALIFIED EMPLOYEES.

CHALLENGES TO GROWTH

Top challenges companies named as \textbf{“very significant.”}:
- 51% Policy Challenges
- 35% Interconnection Delays
- 34% Lack of Qualified Talent
- 30% Permitting Delays

MOST DIFFICULT POSITIONS TO FILL

1. Sales, marketing, customer service
2. Management
3. Electrician/ construction workers

PERCENTAGE OF U.S. SOLAR MANUFACTURERS THAT PRODUCE THESE COMPONENTS

- Mounting Structures/Trackers: 41%
- Modules: 33%
- Monitoring Systems: 21%
- Water Heater/ Thermal Collectors: 17%
- Inverters: 13%

MEDIAN WAGES

- Entry-Level Full-Time Installers: $20/hour for electricians, $16/hour for non-electricians
- Mid-Level Full-Time Installers: $28/hour for electricians, $23/hour for non-electricians
- Manufacturing Production Employees: $15/hour for entry-level, $22/hour for mid-level

OF INSTALLATION STAFF SPEND MOST OF THEIR TIME OUT-OF-STATE.

BY MARKET SEGMENT, 2019

- 56% Residential
- 25% Non-Residential
- 19% Utility-Scale

U.S. SOLAR JOBS BY YEAR

<table>
<thead>
<tr>
<th>Year</th>
<th>Residential</th>
<th>Non-Residential</th>
<th>Utility-Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>93,502</td>
<td>105,145</td>
<td>32,505</td>
</tr>
<tr>
<td>2011</td>
<td>119,017</td>
<td>114,430</td>
<td>36,552</td>
</tr>
<tr>
<td>2012</td>
<td>142,697</td>
<td>139,250</td>
<td>43,892</td>
</tr>
<tr>
<td>2013</td>
<td>173,807</td>
<td>156,415</td>
<td>51,505</td>
</tr>
<tr>
<td>2014</td>
<td>208,859</td>
<td>189,702</td>
<td>61,445</td>
</tr>
<tr>
<td>2015</td>
<td>260,077</td>
<td>240,082</td>
<td>74,215</td>
</tr>
<tr>
<td>2016</td>
<td>250,271</td>
<td>230,483</td>
<td>59,288</td>
</tr>
<tr>
<td>2017</td>
<td>244,340</td>
<td>224,666</td>
<td>59,397</td>
</tr>
<tr>
<td>2018</td>
<td>249,983</td>
<td>230,097</td>
<td>63,586</td>
</tr>
</tbody>
</table>

2018 and 2019 jobs numbers include Puerto Rico.

Learn More at SolarJobsCensus.org