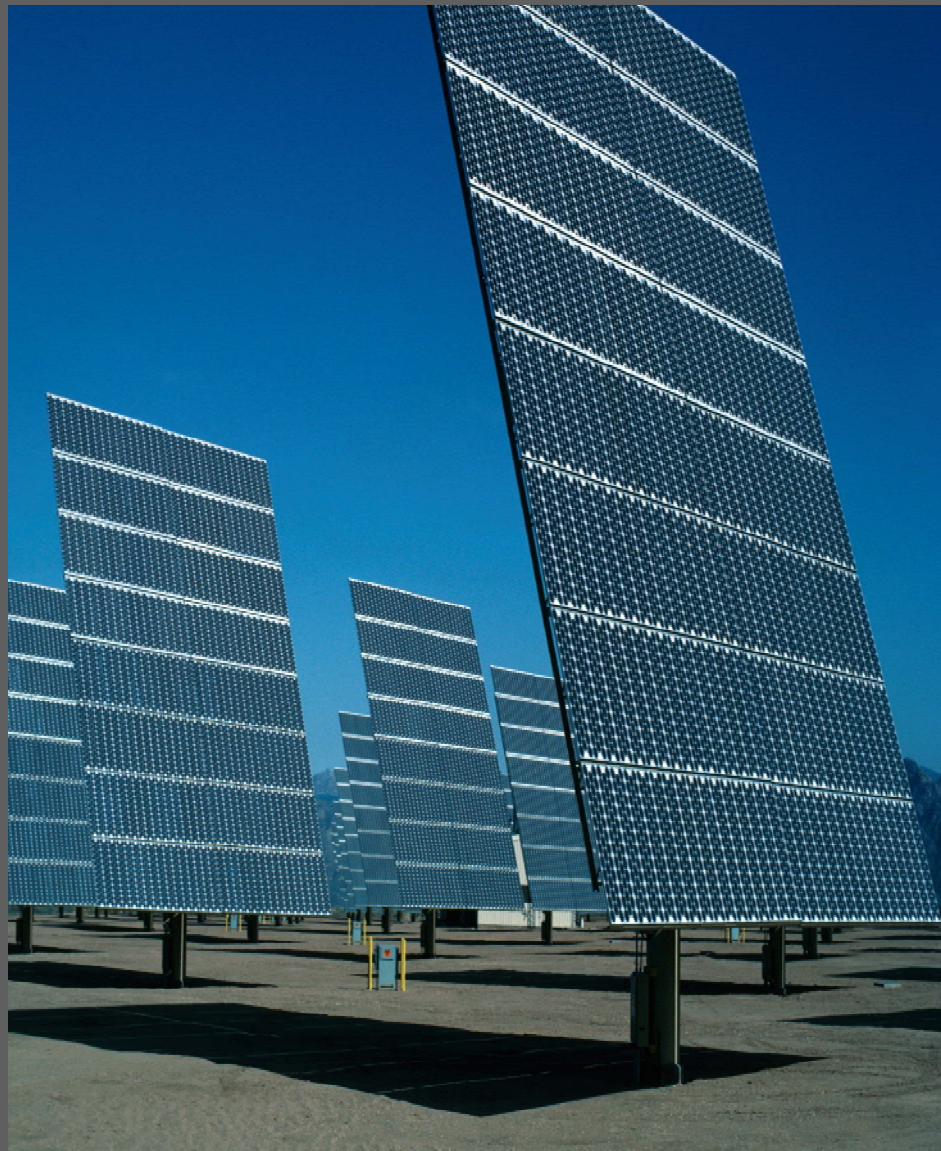


Bay Region Solar Industry & Workforce Study Key Findings, 2008



Centers of Excellence
Economic and Workforce Development
California Community Colleges

The Centers of Excellence, in partnership with business and industry, deliver regional workforce research customized for community college decision making and resource development.



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Inside:

Research Objectives
Solar Industry Profile
Industry Employment Growth
Workforce Challenges
Occupational Employment
Education and Training

The Centers of Excellence environmental scans and other publications can be accessed online at: www.coeccc.net.

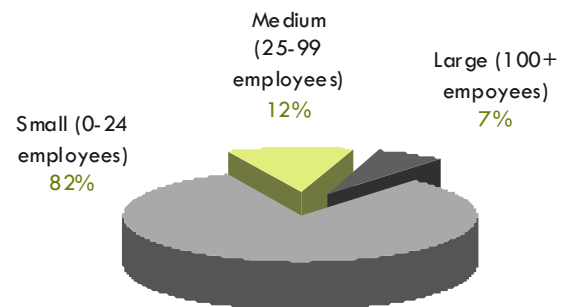
Research Objectives

- Identify solar firms in California, their geographical concentration, size of firms and major sectors.
- Identify key solar occupations that are most relevant to community colleges.
- Develop projections of future employment growth and identify employer challenges in recruiting, hiring and retaining their workforce.
- Define skill sets and education requirements needed for the relevant solar occupations.

Solar Industry Profile

- There are approximately 770 firms in California, of which about 250 firms are located in the Bay Region.
- The majority of solar-related firms (82%) are small—less than 25 employees.
- The majority of solar-related firms (90-95%) are non-manufacturing; this group includes installers, contractors (where solar is a component of the business) and distributors of solar energy equipment.

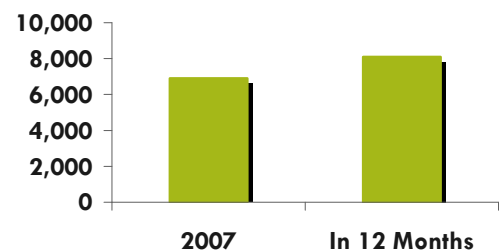
Solar and Solar-related firms in California by Employment Size



Industry Employment Growth

- Solar-related firms in the Bay Region employ between 6,900 and 8,000 workers.
- 73% of surveyed employers plan to hire more employees over the next 12 months.
- Solar-related firms are expecting to increase employment by up to 17% or approximately 1,200 new jobs.

Employment Growth in Solar and Solar-related Firms

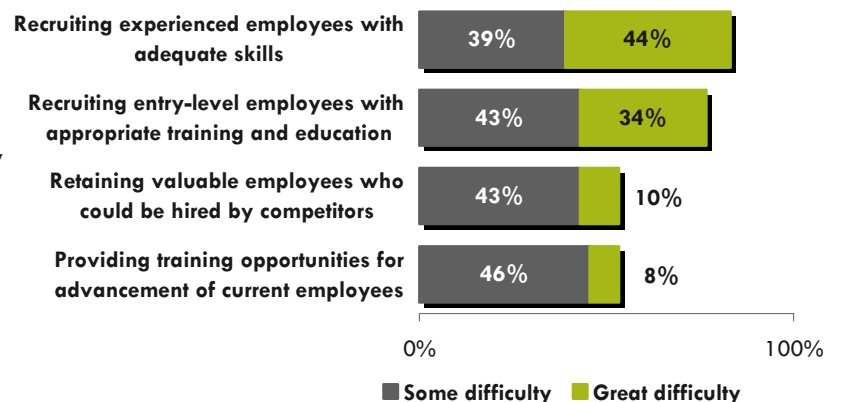


Workforce Challenges

Employers are facing significant challenges finding qualified workers.

- Three out of four employers indicate difficulty finding entry-level employees.
- Four out of five employers indicate difficulty finding experienced employees.

Workforce Challenges for Solar and Solar-related Firms



Occupational Employment

The following five solar occupations were studied:

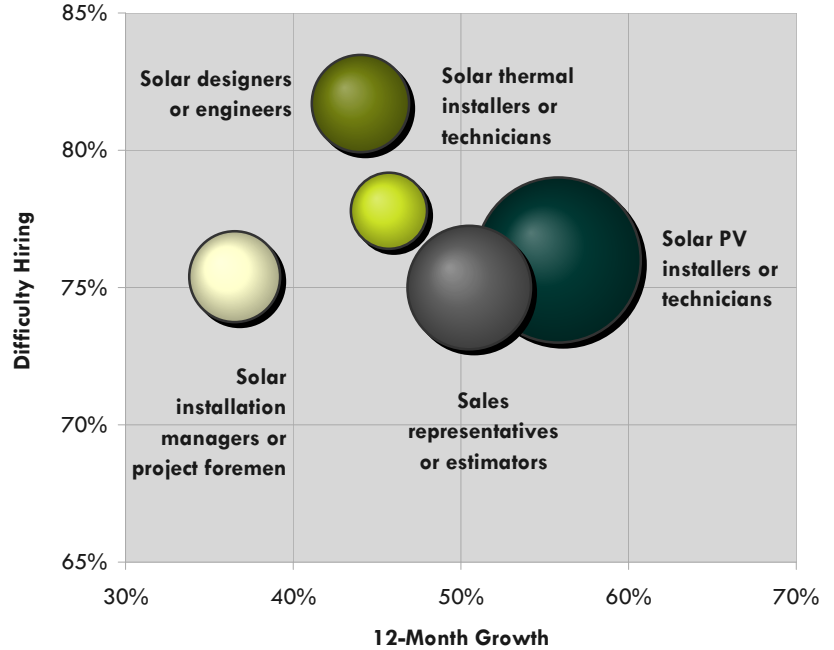
- PV Installer
- Solar Thermal Installer
- Sales Representative
- Solar Designer/Engineer
- Installation Manager/Project Foreman

The area of each bubble represents the size of current employment for each occupation.

All five occupations show significant growth over the next 12 months, with PV installers (56%) and solar sales representatives (51%) having the strongest projected growth.

Employers indicate difficulty in hiring for all five occupations (over 75%).

Occupational Employment: Difficulty in Hiring and Expected Growth



Education and Training

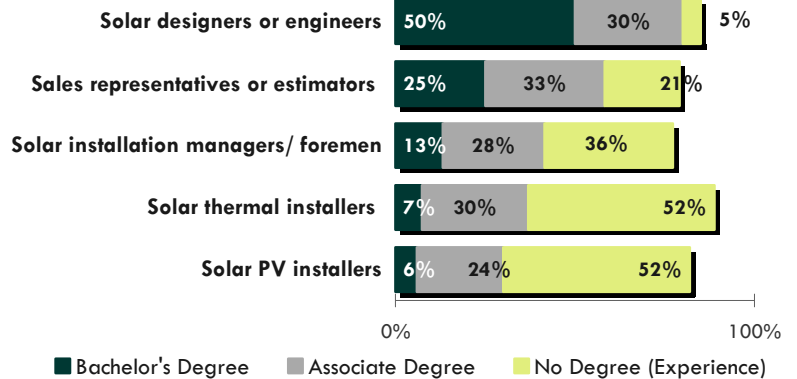
When asked about their preferences for hiring candidates with different educational backgrounds, employers indicated that they:

- Prefer applicants with more hands-on experience for solar thermal installers and PV installers.
- Prefer applicants with a Bachelor's or specific associate degree for solar designers or engineers (80%) and sales representatives (58%).

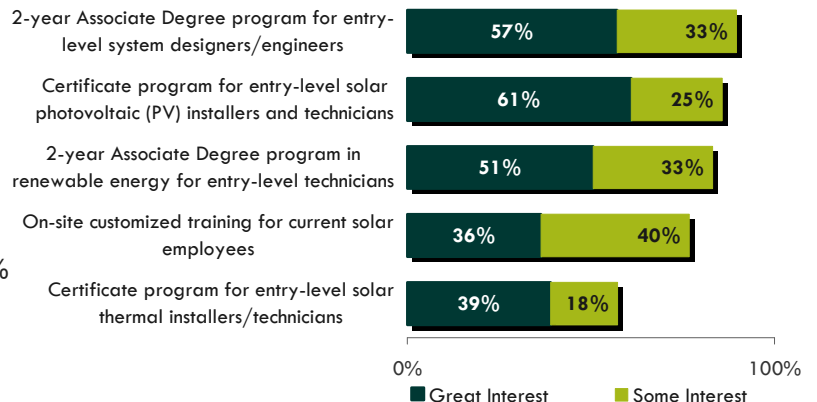
Employers clearly have great interest in education and training programs that can be developed by community colleges:

- A certificate program for entry-level PV installers (61% had great interest).
- A two-year degree program for entry-level system designers or engineers in renewable energy (57% had great interest).
- A two-year degree program for entry-level technicians in renewable energy (51% had great interest).
- A two-year degree program for entry-level system designers/engineers (33% had great interest).

Employer Education Preferences for Solar Occupations



Employer Interest in Community College Programs



For More Information

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