

California's Green Economy



April 21, 2010

Employment Development Department
Labor Market Information Division

Understanding the Green Economy

What is California LMI Doing/Planning?

- Collaborating to expand knowledge
 - with federal/state/local research partners to review existing research and identify information gaps
 - with state and local partners to define workforce needs and support workforce development
 - with control entities and utilities responsible for bringing about climate change
- Responding to state and national information needs
 - Share knowledge across agencies and geographic areas
 - Host a shared “green web page” that includes research, survey methods and tools; national, state and local activities; legislation;
<http://www.labormarketinfo.edd.ca.gov/?pageid=1032>
- Surveying California businesses to establish baselines of green employment and green business practices
- Conducting and publishing career research to support workforce development

Our Working Definition of Green Jobs

Green jobs produce (“supply”) goods or services that result in:

- **G**enerating and storing renewable energy
- **R**ecycling existing materials
- **E**nergy efficient product manufacturing, distribution, construction, installation, and maintenance
- **E**ducation, compliance and awareness
- **N**atural and sustainable product manufacturing

For the complete definition see:

<http://www.labormarketinfo.edd.ca.gov/contentpub/GreenDigest/Californias-Draft-Definition-Green-Industries.pdf>

Sustainable Practices Increase Demand

Important caveat...

- LMID's green jobs definition focuses on the "supply" side
- Sustainable business practices (the "demand" side) are equally important to California's green economy
- Demand leads to increased pressure for additional supply of products and services
- Survey covers "supply" and "demand" separately

Green Economy Survey Details

- Completed January 2010
- Surveyed businesses across the California economy; all industries, all sizes, all areas
- Creates a baseline measure of:
 - Number of workers in green or clean product manufacturing and/or services
 - Number of businesses that have adopted green practices
 - Emerging occupations for further study related to skills and workforce needs
- Partnering with Community Colleges, Air Resources Board, California Energy Commission, California Workforce Investment Board, Economic Strategy Panel, Employment Training Panel, and others

Preliminary data as of April 21, 2010

California's Survey Results

- Nearly 15,200 employers responded
- 8.6 percent of employers report employees working on green products and services
- About 3.8 percent of all workers are working on green products and services
- About two-thirds of green workers spend more than half time on green aspects of job
- 63 percent of employers report using at least one green business practice
- Three-quarters of current green workers were trained on the job

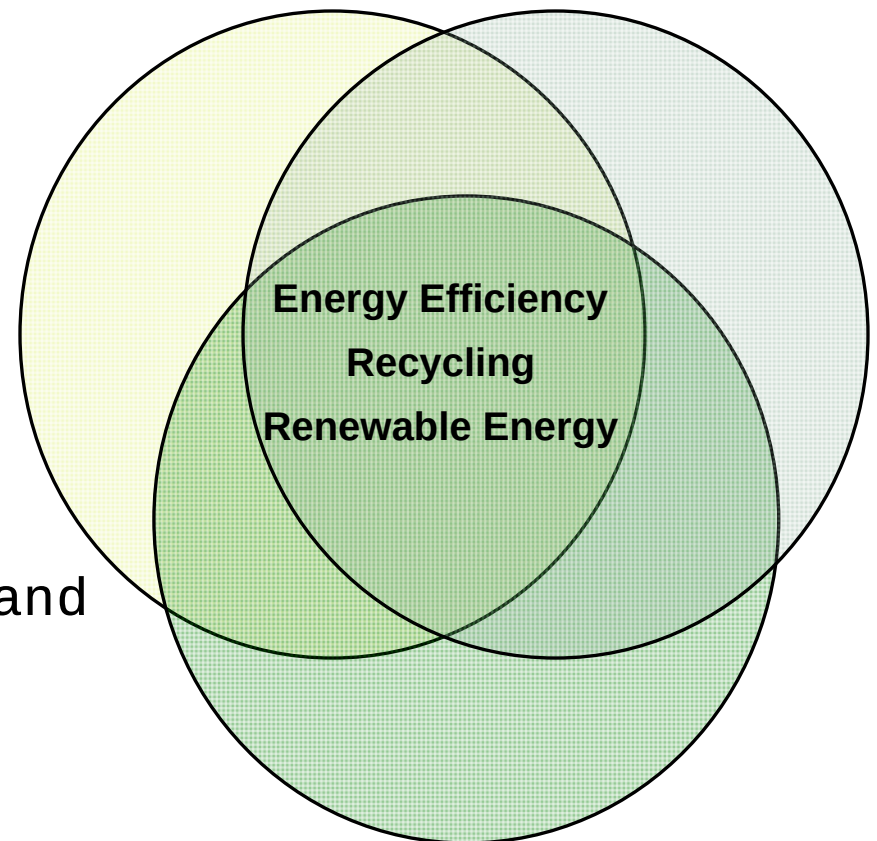
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Comparison to Other States' Recent Green Workforce Surveys?

Green jobs as a percent of total employment

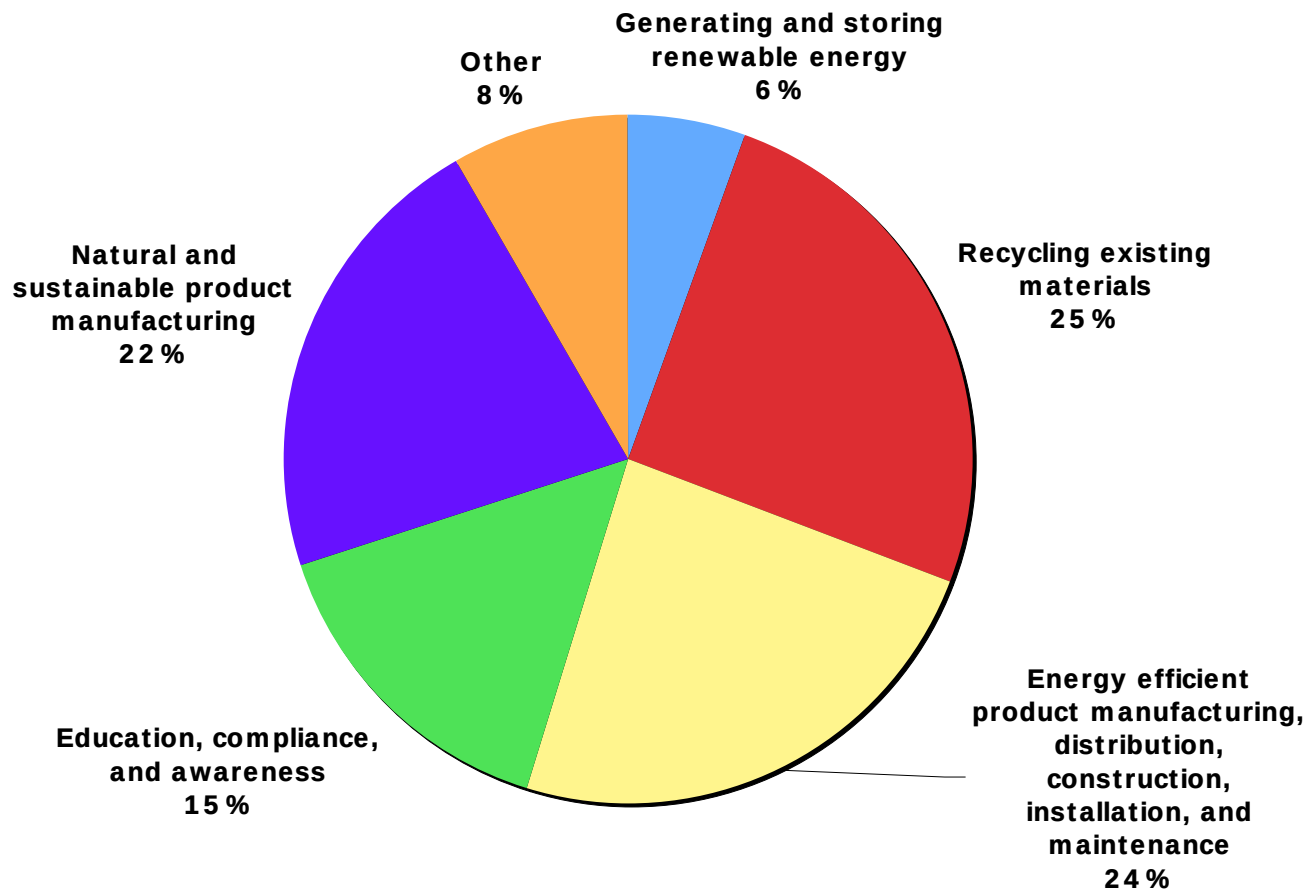
California	3.8%
Washington	3.3%
Oregon	3.0%
Michigan	3.0%

- Caveat...Definitions vary somewhat between states...
- Renewable energy, recycling, and energy efficiency are in each states definition



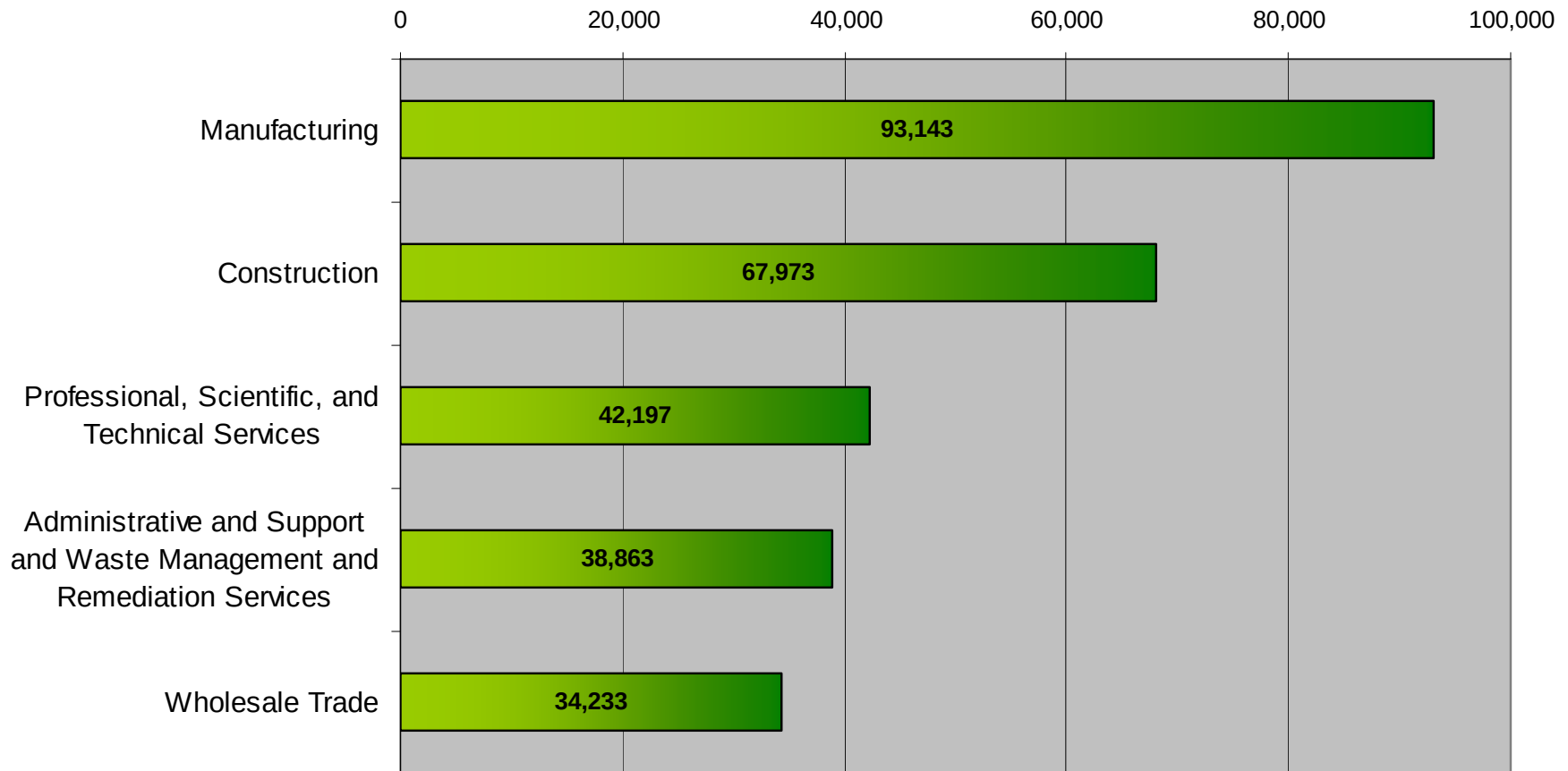
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Green Workers Reported



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Industries with the Most Green Jobs



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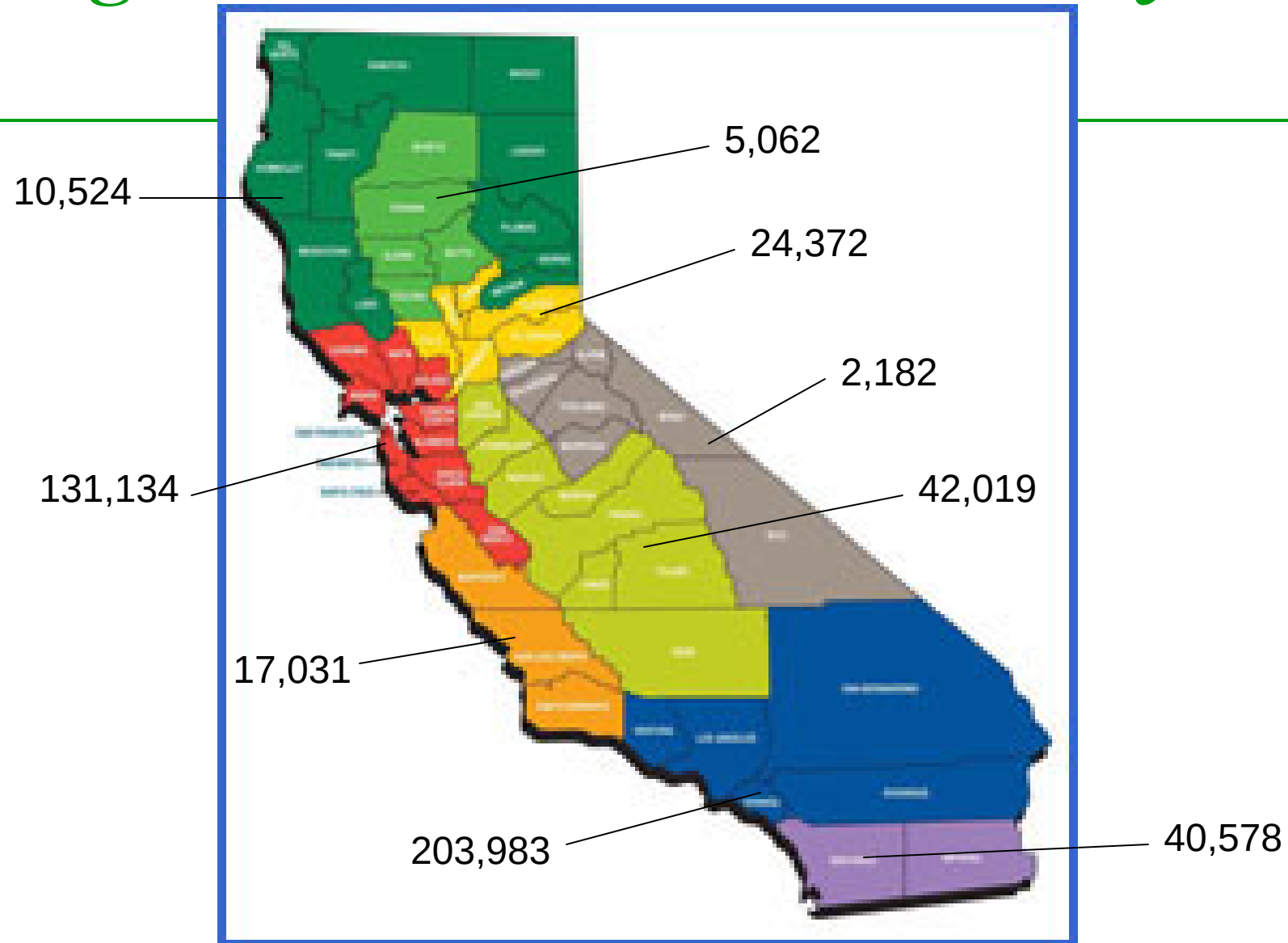
Nine Economic Strategy Panel Regions

- Bay Area
- Central Coast
- Central Sierra
- Greater Sacramento
- Northern California
- Northern Sacramento Valley
- San Joaquin Valley
- Southern Border
- Southern California



Preliminary data as of April 21, 2010

Regional Distribution of Green Jobs



Preliminary data as of April 21, 2010

Southern California Region

Top Industries

Generating and Storing Renewable Energy

- Utilities (8,793 employees)
- Professional, Scientific and Technical Services (2,389 employees)
- Wholesale Trade (1,605 employees)

Recycling Existing Materials

- Manufacturing (9,114 employees)
- Administrative and Support and Waste Management and Remediation Services (8,868 employees)
- Wholesale Trade (8,371 employees)

Energy Efficient Product Manufacturing, Distribution, Construction, Installation and Maintenance

- Construction (13,079 employees)
- Manufacturing (9,747 employees)
- Retail Trade (6,593 employees)

Preliminary data as of April 21, 2010

Southern California Region

Top Industries (cont'd)

Education, Compliance, and Awareness

- ▣ Educational Services (5,366 employees)
- ▣ Transportation and Warehousing (3,944 employees)
- ▣ Public Administration (3,817 employees)

Natural and Sustainable Product Manufacturing

- ▣ Manufacturing (21,784 employees)
- ▣ Wholesale Trade (2,556 employees)
- ▣ Administration and Support and Waste Management and Remediation Services (1,720 employees)

Bay Area Region

Top Industries

Generating and Storing Renewable Energy

- Manufacturing (1,432 employees)
- Professional, Scientific, and Technical Services (1,112 employees)
- Construction (929 employees)

Recycling Existing Materials

- Manufacturing (3,517 employees)
- Construction (4,040 employees)
- Administrative and Support and Waste Management and Remediation Services (3,112 employees)

Energy Efficient Product Manufacturing, Distribution, Construction, Installation and Maintenance

- Construction (13,653 employees)
- Manufacturing (13,297 employees)
- Professional, Scientific, and Technical Services (3,157 employees)

Preliminary data as of April 21, 2010

Bay Area Region

Top Industries (cont'd)

Education, Compliance, and Awareness

- Professional, Scientific and Technical Services (8,230 employees)
- Accommodation and Food Services (4,144 employees)
- Educational Services (3,006 employees)

Natural and Sustainable Product Manufacturing

- Agriculture, Forestry, Fishing and Hunting (6,090 employees)
- Manufacturing (6,099 employees)
- Educational Services (2,185 employees)

Other Regions

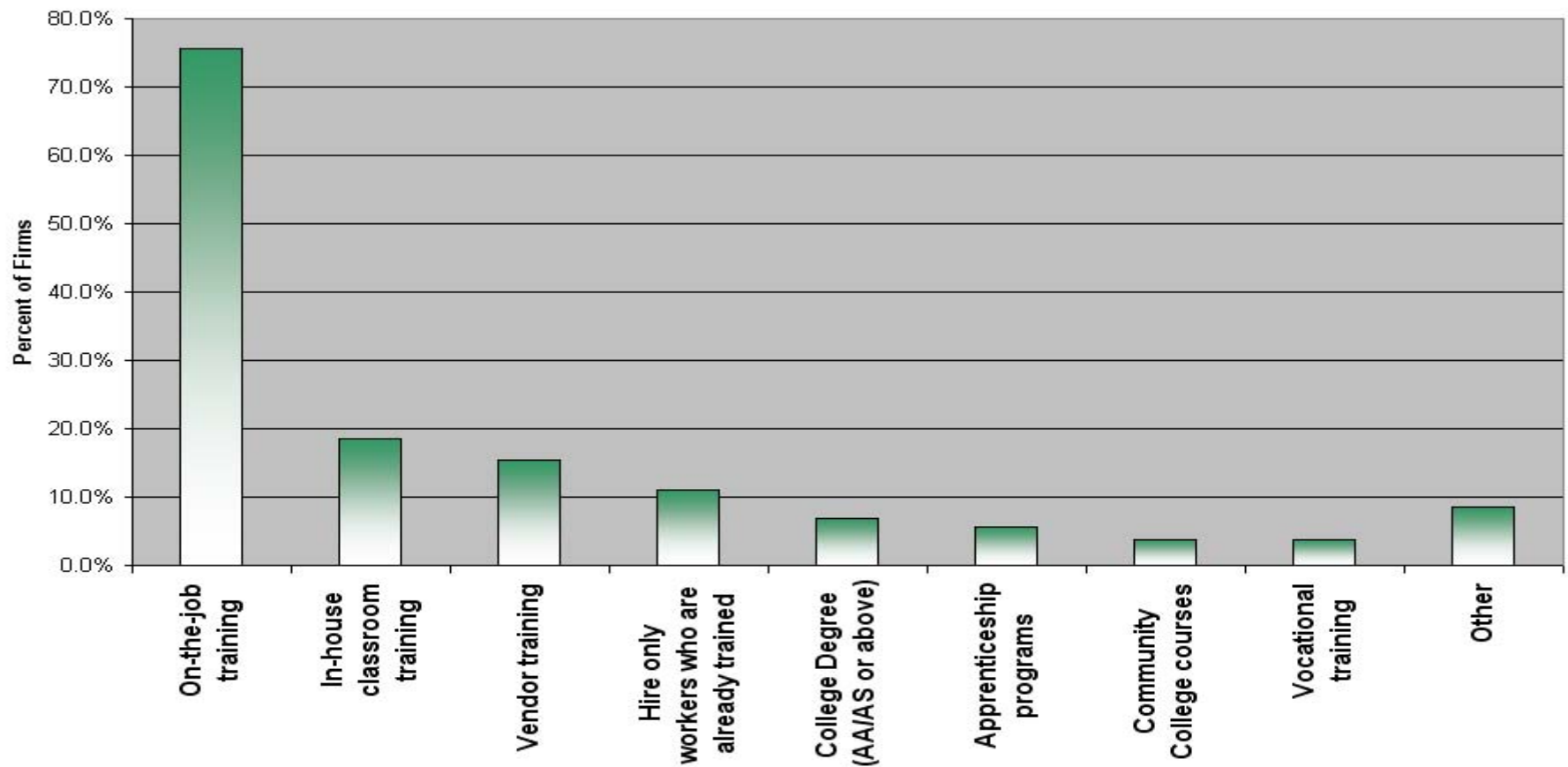
Top Green Industries

- Central Coast -- Construction (4,079)
- Central Sierra -- Accommodation and Food Service (606 employees)
- Greater Sacramento -- Wholesale Trade (5,604 employees)
- Northern California -- Agriculture, Forestry, Fishing and Hunting (2,332 employees)
- Northern Sacramento Valley -- Public Administration (860 employees)
- San Joaquin Valley -- Agriculture, Forestry, Fishing and Hunting (11,495 employees)
- Southern Border -- Construction (8,331 employees)

Preliminary data as of April 21, 2010

Preparation of Current Green Workers – OJT!

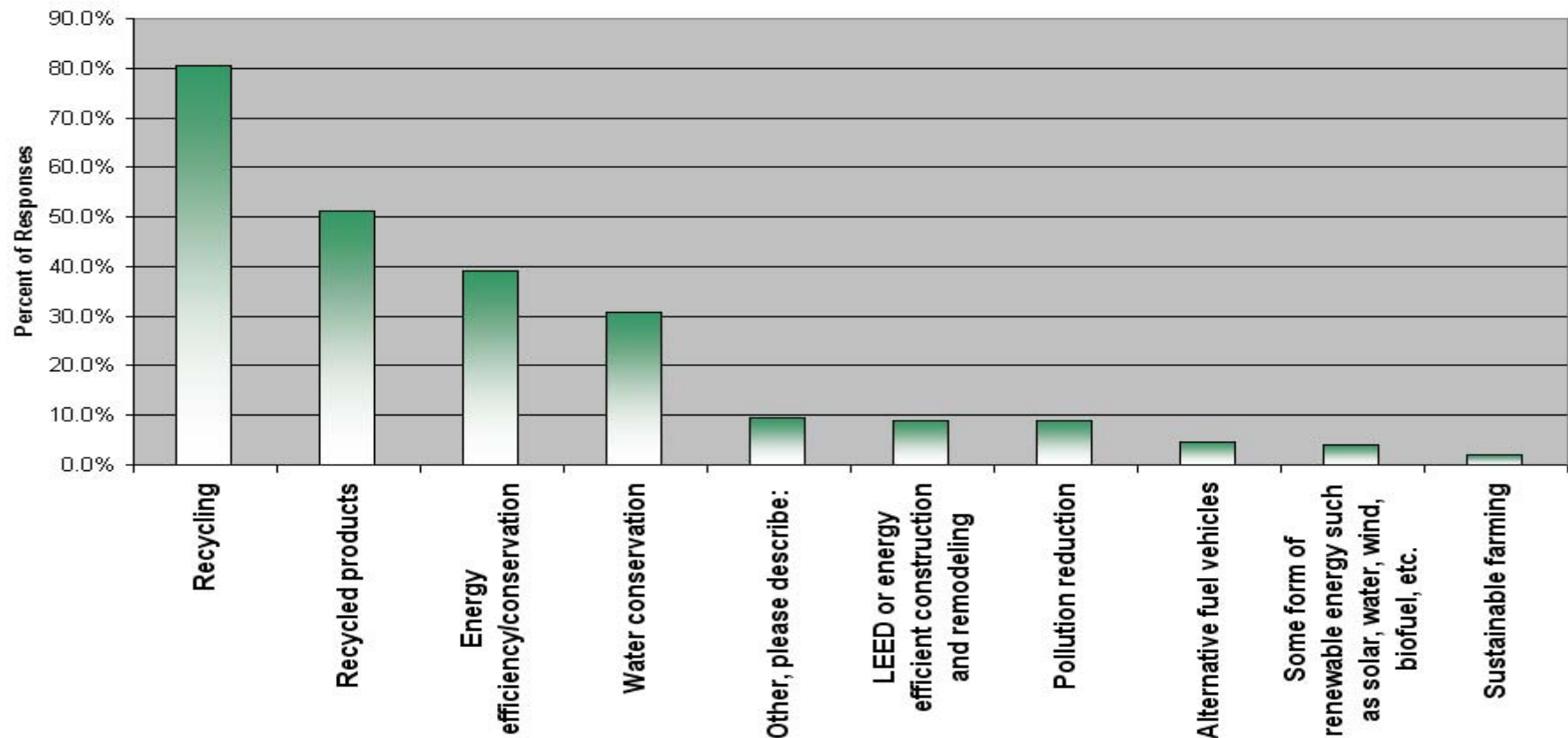
Training Methods Used by Employers to Prepare Current Workers for Green Jobs



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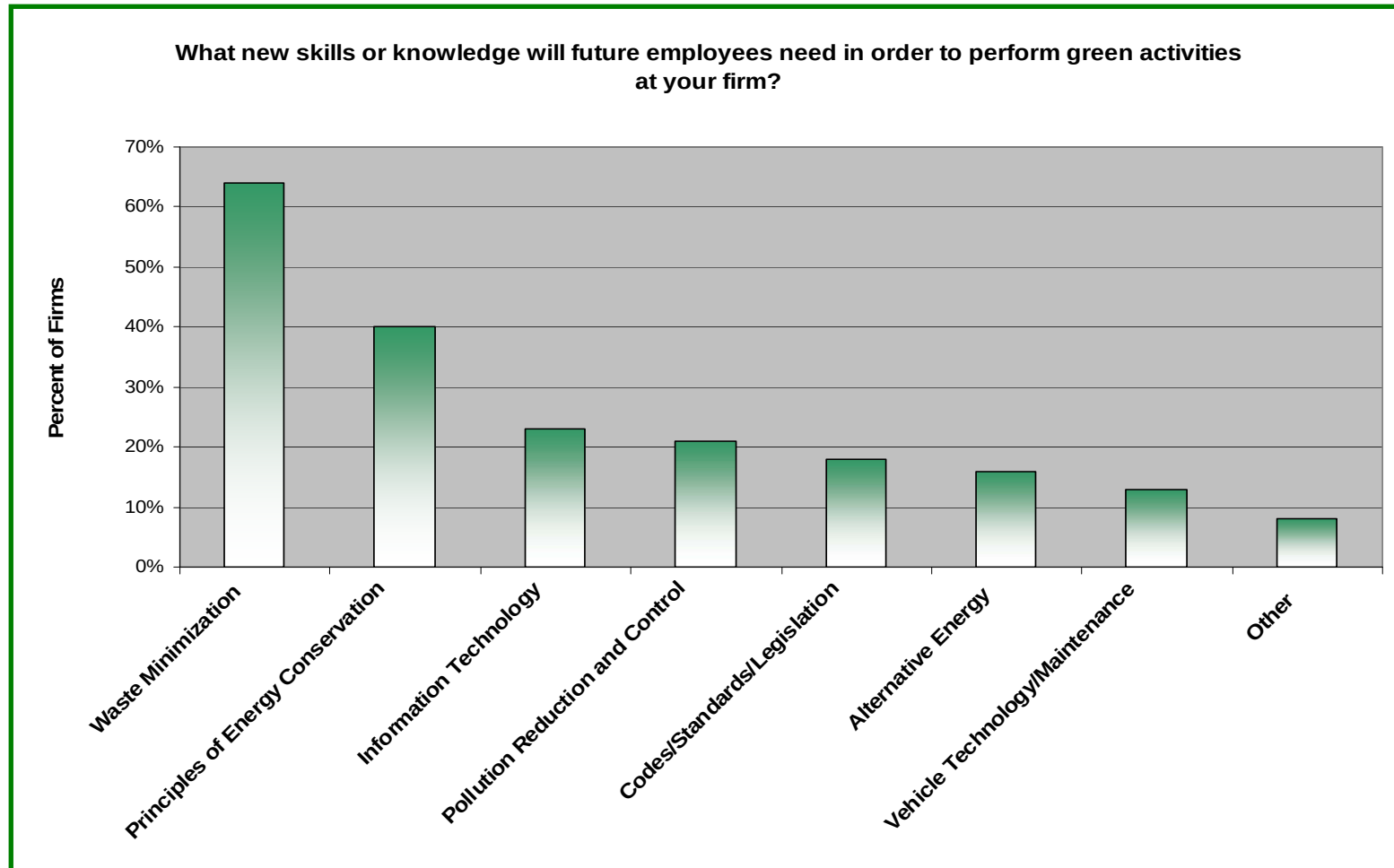
Sustainable Business Practices

If your business makes use of green practices, services or products, what does your firm currently USE on site



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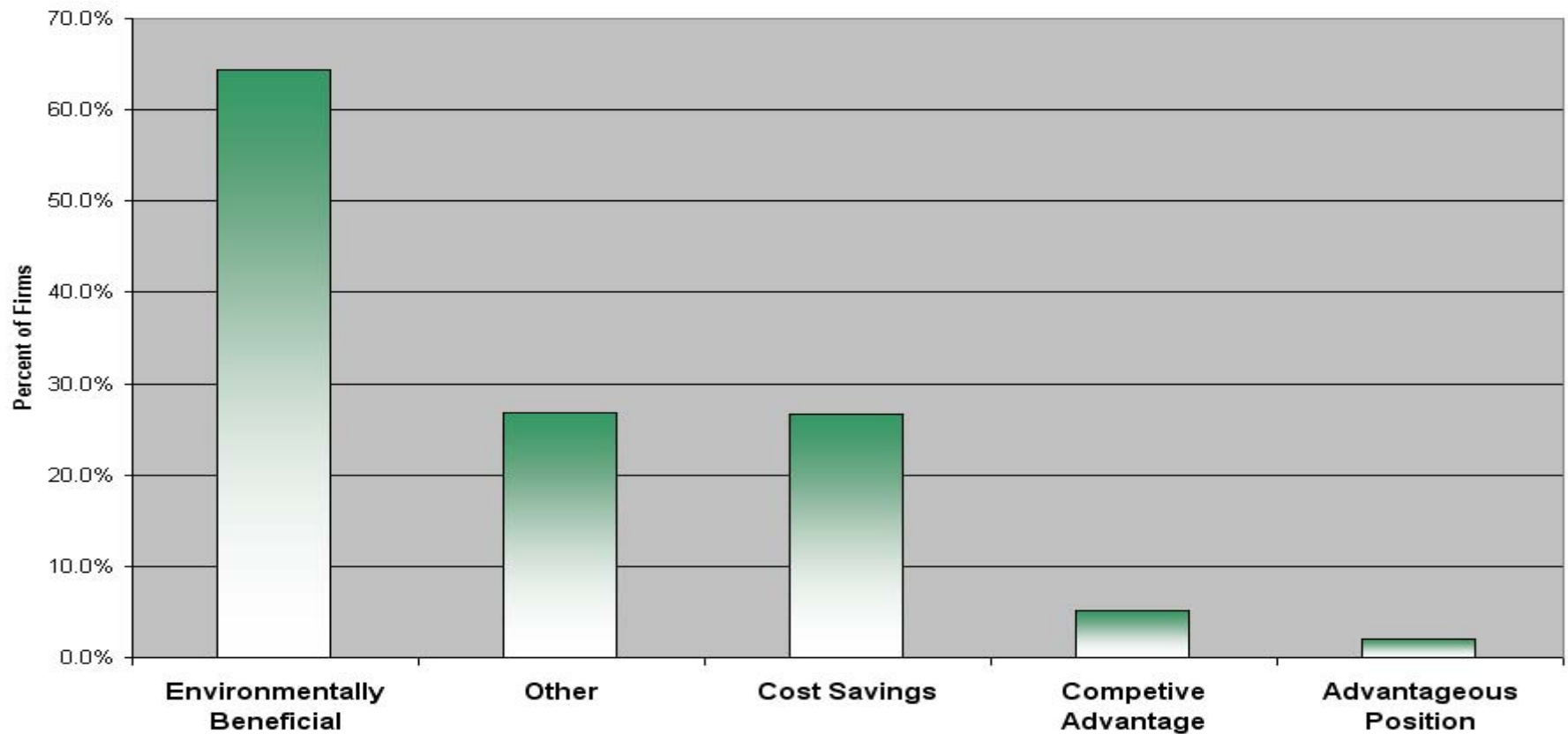
Business Practice Skill Needs



Preliminary data as of April 21, 2010

Sustainable Practices – Benefits

What do you view as the largest benefit to your business in taking steps to reduce greenhouse gas emissions?



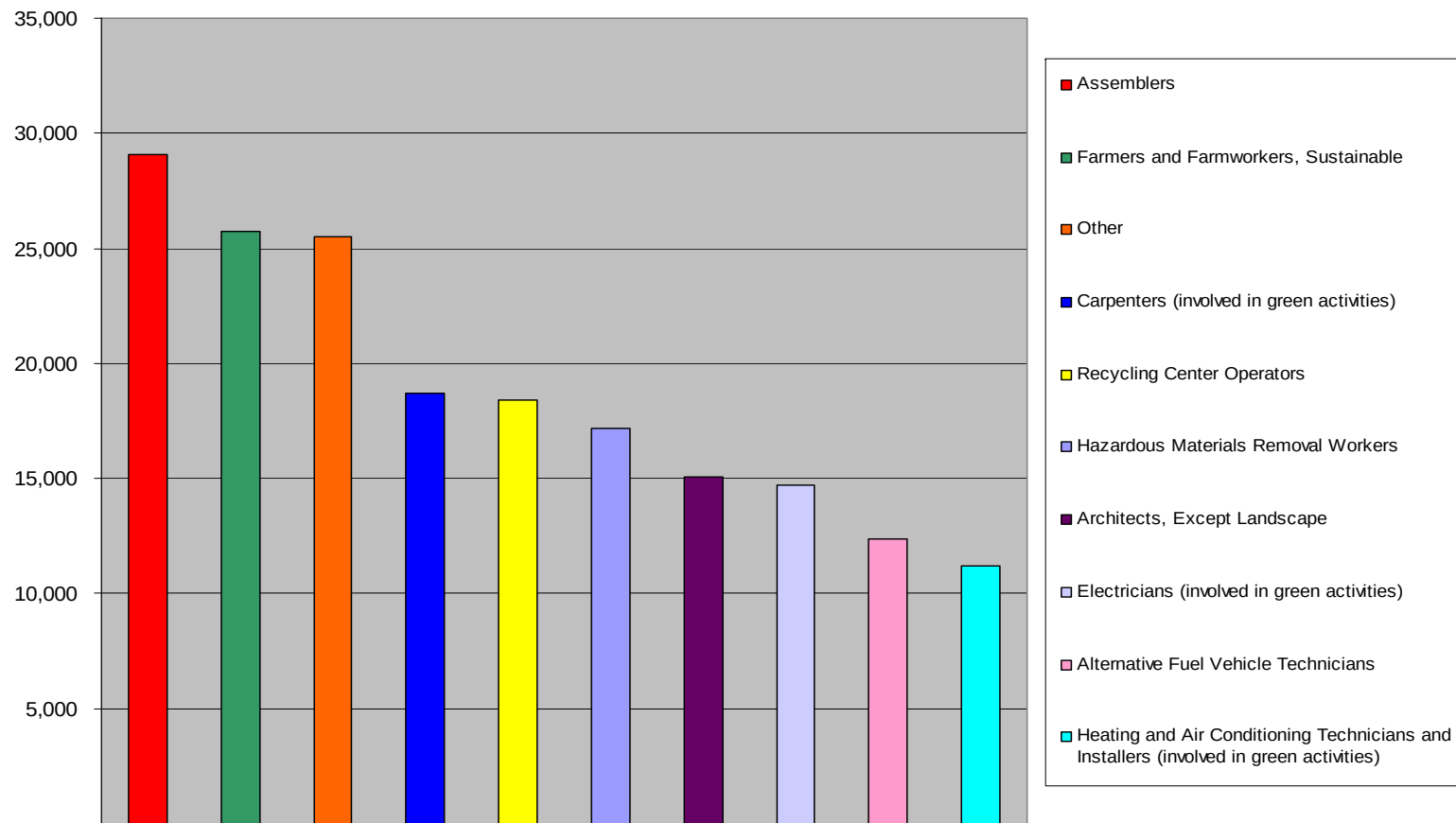
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Occupational Findings

- **Green employees reported in 34 green jobs** listed on survey and written in occupations
- 12% of workers were reported under “Other Green Job Titles”
- Examples of write ins—include:
 - Warehouse Recycling Manager
 - LEED Accredited Professionals
 - Environmental Health and Safety Managers
 - Alternative fuel vehicle infrastructure engineers
 - Fleet manager (alternative fuel vehicles)
 - Transportation program specialist
 - Battery recyclers
- Greater detail will be collected in a subsequent occupational skills survey.

Top Green Jobs

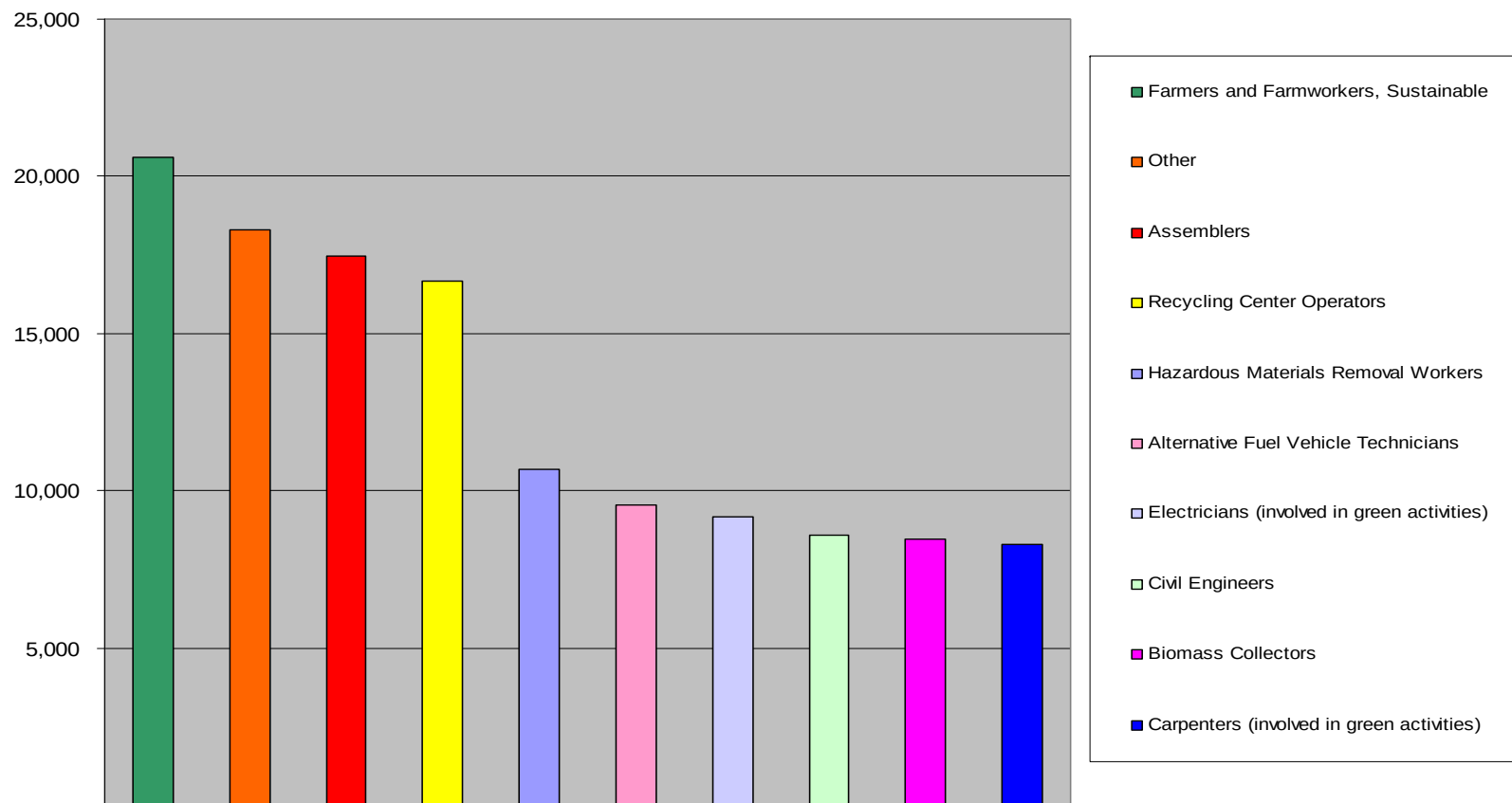
Occupations Indicated by Firms Reporting Green Jobs



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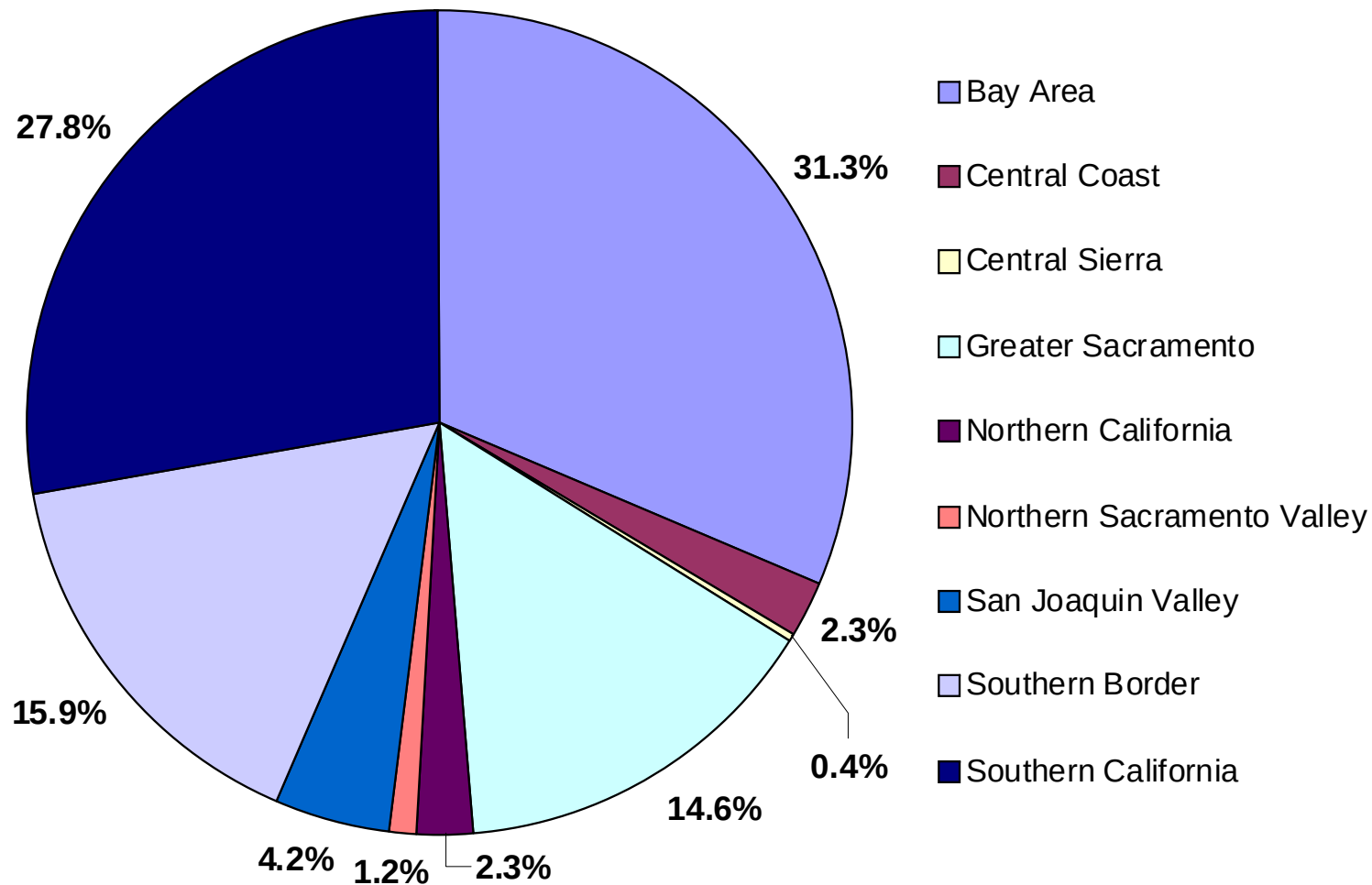
Top Green Jobs 50% of time or more

Occupations Indicated by Firms That Report Green Jobs Requiring 50 Percent or More of Work Time



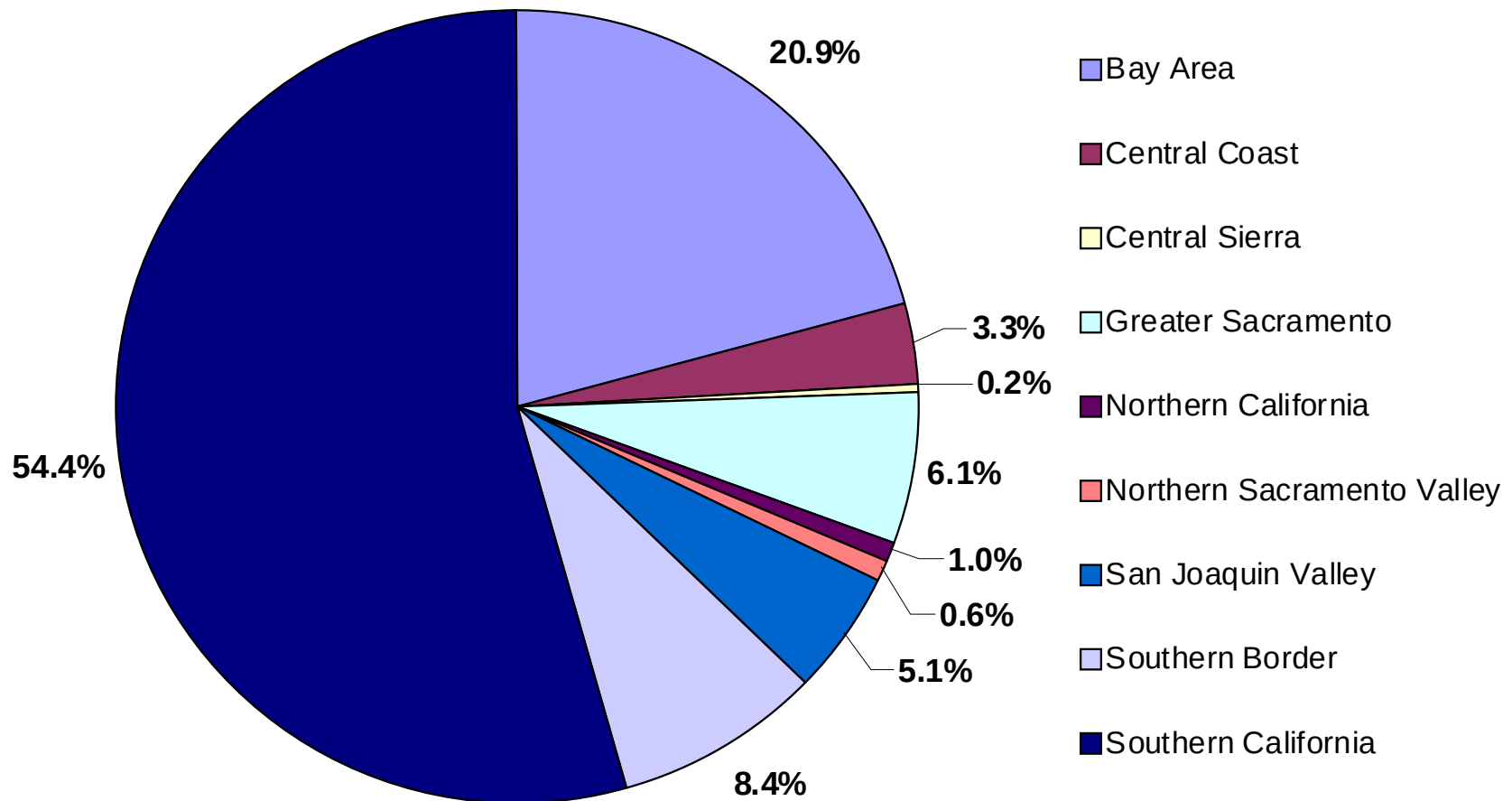
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Regional Distribution of Carpenters (involved in green activities)



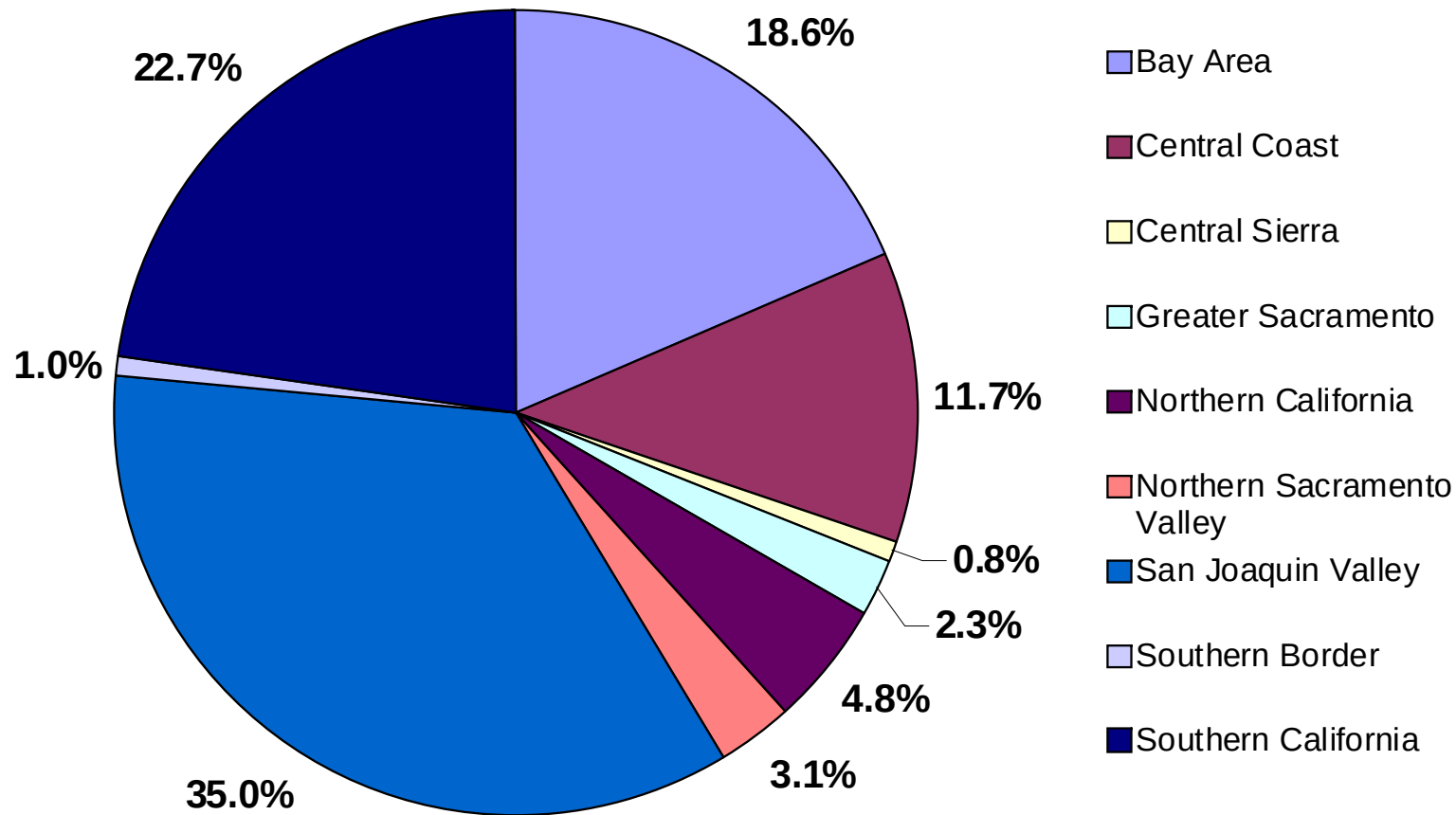
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Regional Distribution of Hazardous Materials Workers



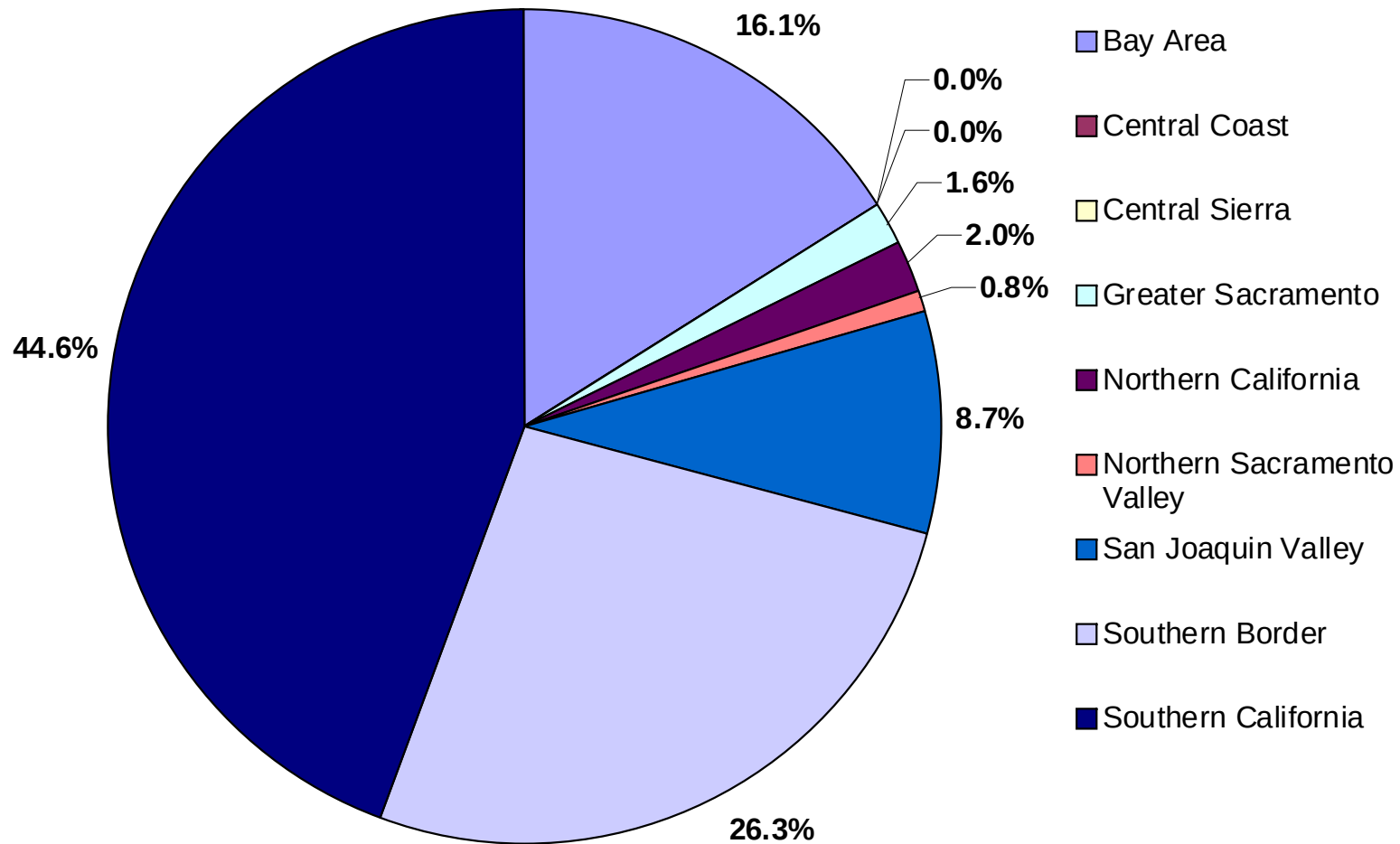
Preliminary data as of April 21, 2010

Regional Distribution of Sustainable Farmers and Farm Workers



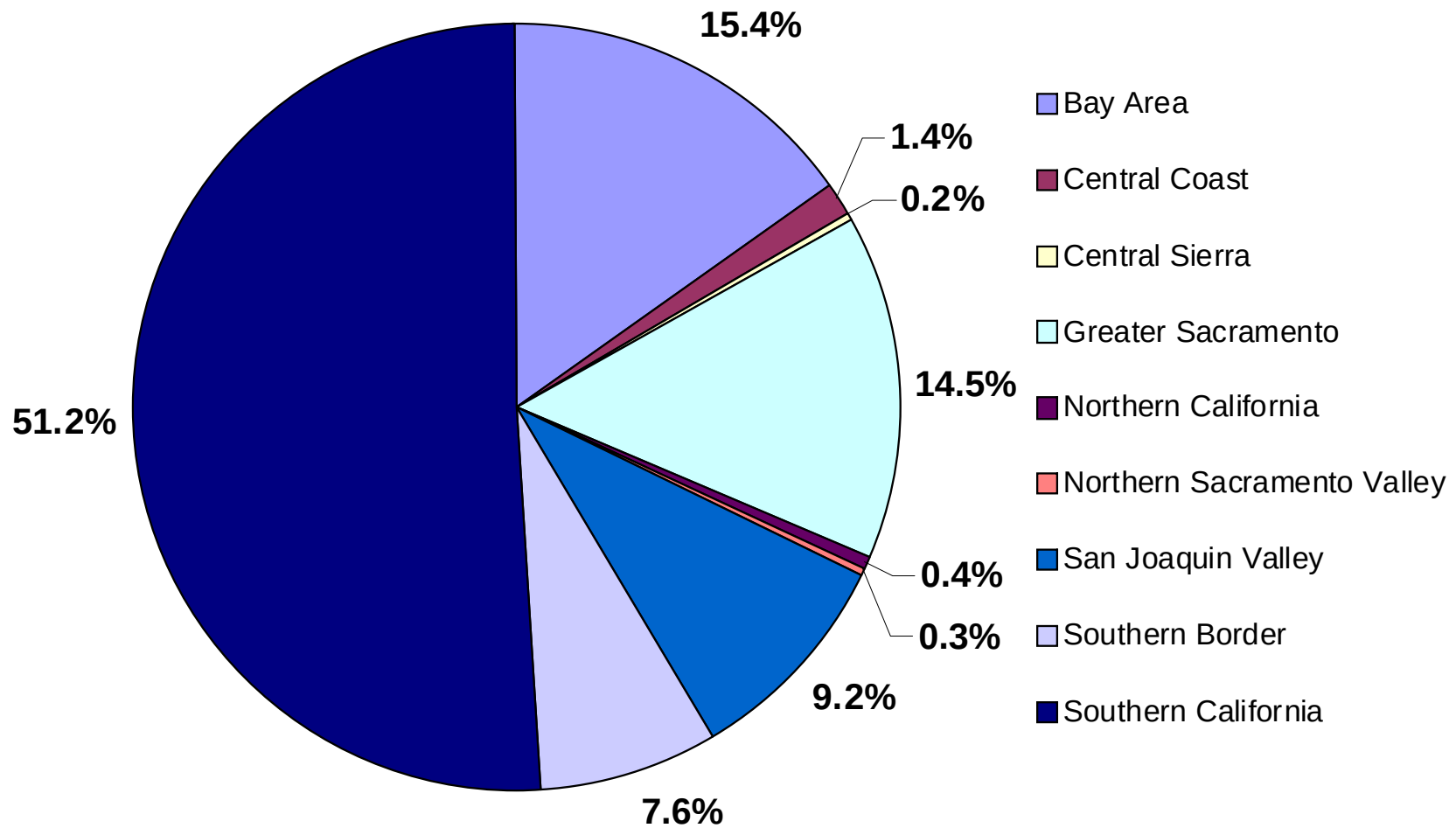
Preliminary data as of April 21, 2010

Regional Distribution of Assemblers



Preliminary data as of April 21, 2010

Regional Distribution of Recycling Center Operators



Preliminary data as of April 21, 2010

Next Steps

- Complete data refinement
- Review findings with key players
- Prepare summary report, with regional distinctions as warranted by the data
- Prepare industry-level reports
- Detailed occupational follow-up surveys and analysis
- Report on occupational skills and workforce development needs