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California Green Economy Trends

This report provides a broad overview of the results from the Employment Development Department's (EDD) research study, California Green Economy Trends, Relationships between Firms and Employment Outcomes. This study suggests that there was a difference in California firms' propensity to experience net job gains based upon the following characteristics: age (months in business), industry sector, and size (total employment at work site). In terms of net job creation, the research findings suggested there was no discernible difference between green and non-green firms.

This research study was conducted by Brandon T. Hooker, Statewide Information Services Group.

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Does "Being Green" Make a Difference?

The green economy continues to receive attention for its potential to create jobs and kick-start the national economy. Supporters of the expansion of funding for green technologies believe it will create new jobs and opportunities in the future. Detractors have voiced concerns over investments in clean energy, citing the bankruptcy of solar energy firm Solyndra which received \$535 million in federal loan guarantees. The Employment Development Department (EDD) research study conducted on California firms from January 2008 through January 2010, provided evidence that suggests green firms were no more or less likely to create jobs when compared to non-green firms.

The EDD's research study, California Green Economy Trends, Relationships between Firms and Employment Outcomes, provides evidence of employment trends associated with the state's green economy. This study suggests that there was a difference in California firms' propensity to experience net job gains based upon the following characteristics: age (months in business), industry sector, and size (total employment at work site). The data also suggested there were no discernible differences in job creation based upon the type of firm (green or non-green). Please note: the time period in which green firms were studied was one of the longest economic contraction periods in the nation's history, the Great Recession.

Data for this research study was derived from the results of the EDD California Green Economy Survey and monthly employment data contained in the EDD Quarterly Census of Employment and Wages (QCEW) database. Age, industry sector, size, and type of firm were used in a statistical model to test the research study's hypothesis regarding the relationship between employment outcomes and a firm's characteristics. This model produced results that allowed researchers to calculate the probability that an employment outcome (e.g., net job gain) occurred based on the characteristics of individual firms (see Table 1). Information on the model results by industry sector are provided in the comprehensive research study (see hyperlink at the end of the report).

According to the model, older, green firms in the lower size classes were less likely to add jobs than younger, non-green firms during the study period (January 2008-January 2010). The data also suggests younger, green and non-green firms within larger size classes (>250 employees) were more likely to add jobs rather than lose jobs or experience no net change in employment between January 2008 and January 2010.

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Based upon the evidence presented in this study, there is no clear distinction between green and non-green firms in terms of their job creation behaviors. Most green economy research points to the differences between green and non-green firms in regard to their ability to create jobs. The results of this study suggest a future direction for this research should focus on examining economic traits commonly held by all firms that create jobs in economic upswings and downturns; regardless of the product or service they generate.

Table 1

						Predicted Probability*			
Type of Firm Green Firm (1); Non-Green Firm (0)	Age of Firm Number of Months in Business	Size Class 0 (1-19 emp.)	Size Class 1 (20-99 emp.)	Size Class 2 (100-249 emp.)	Size Class 3 (≥250 emp.)	Net Gain In Employment	No Net Change In Employment	Net Loss in Employment	Total
$\beta = -0.0101$	$\beta = -0.0035$	$\beta = 0.00$	$\beta = 0.7332$	$\beta = 0.7000$	$\beta = 0.9298$				
1	99	✓	-	-	-	0.20	0.43	0.37	1.00
1	99	-	✓	-	-	0.35	0.44	0.22	1.00
1	99	-	-	✓	-	0.34	0.44	0.22	1.00
1	99	-	-	-	✓	0.39	0.42	0.19	1.00
0	99	✓	-	-	-	0.20	0.43	0.37	1.00
0	99	-	✓	-	-	0.34	0.44	0.22	1.00
0	99	-	-	✓	-	0.34	0.44	0.23	1.00
0	99	-	-	-	✓	0.39	0.42	0.19	1.00
1	3	✓	-	-	-	0.26	0.44	0.29	1.00
1	3	-	✓	-	-	0.43	0.41	0.17	1.00
1	3	-	-	✓	-	0.42	0.41	0.17	1.00
1	3	-	-	-	✓	0.47	0.38	0.14	1.00
0	3	✓	-	-	-	0.26	0.44	0.30	1.00
0	3	-	✓	-	-	0.42	0.41	0.17	1.00
0	3	-	-	✓	-	0.42	0.41	0.17	1.00
0	3	-	-	-	✓	0.47	0.39	0.14	1.00
* Highest probabilities in bold									
✓ (Size Class Selected); - (Size Class Not Selected)									

The EDD's research study *California Green Economy Trends, Relationships between Firms and Employment Outcomes* is currently available at the EDD's Labor Market Information Division website (www.labormarketinfo.edd.ca.gov).



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