Food Insecurity with Hunger Among California's Poor

Results of the 2005 BRFSS

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BACKGROUND

Food insecurity is defined here by questions about conditions and behaviors known to characterize households having difficulty meeting basic food needs. When access to enough food is limited by a lack of money and other resources, it can contribute to a wide variety of negative health outcomes. The California Cancer Prevention and Nutrition Section added the series of questions composing the six-item Household Food Security Scale to the 2005 BRFSS. The scale is used to categorize respondents as food secure, food insecure without hunger, and food insecure with hunger (very low food security). The majority of hunger is experienced among people from households with the lowest incomes.

Poverty, food stamp and food insecurity information for California and the US

	California	US
Percent individuals <185% poverty	27.1	29.9
Percent individuals <130% poverty	17.3	19.6
Percent individuals <100% poverty	12.4	14.2
Percent Food Stamp participants	6.9	5.3
Percent individuals in HH food insecure	12.2	15.5
Percent individuals in HH food insecure with hunger	3.2	3.8

Source: US 2000 Census, USDA, CDSS, Food Security Institute

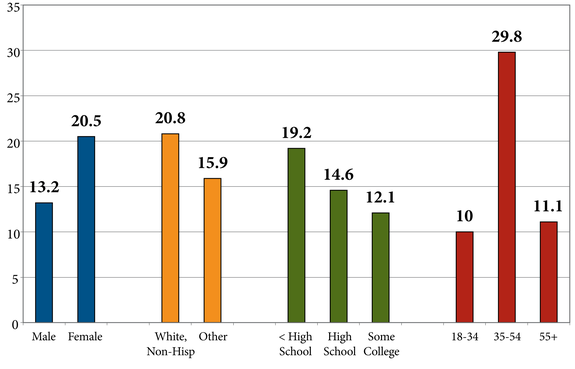
OBJECTIVES

Examine the odds of being food insecure with hunger as a function of age, gender, ethnicity, and education level among adults living below the federal poverty level.

METHODS

Logistic regressions were conducted on hunger status (very low food security) derived from the Household Food Security Scale.

Food Insecurity With Hunger, Respondents from Households with Income < 100% Federal Poverty Level (N=653)



Type 3 Analysis of Effects

Effect	DF	Wald Chi-Square	Pr > ChiSq
AGEG	2	15.9145	0.0004
SEX	1	1.7413	0.1870
EDUCA	2	2.8997	0.2346
_RACEGR	1	2.7106	0.0997

Analysis of Maximum Likelihood Estimates

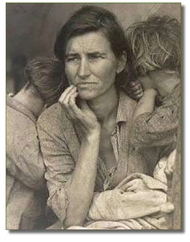
Parameter		DF	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq
Intercept		1	-2.3857	0.4158	32.9139	<.0001
_AGEG	35-54	1	1.1724	0.3382	12.0182	0.0005
_AGEG	55+	1	-0.0739	0.4184	0.0312	0.8599
SEX	Female	1	0.4248	0.3219	1.7413	0.1870
EDUCA	HS Grad or GED CERT	1	0.4424	0.3873	1.3052	0.2533
EDUCA	Less Than High School	1	0.6474	0.3826	2.8629	0.0906
_RACEGR	Other	1	-0.5615	0.3410	2.7106	0.0997

Odds Ratio Estimates

Effect		Point Estimate	95% Wald Confidence Limits	
_AGEG	35-54 vs 18-34	3.230	1.665	6.266
_AGEG	55+ vs 18-34	0.929	0.409	2.109
SEX	Female vs Male	1.529	0.814	2.874
EDUCA	HS Grad or GED CERT vs Some or More College	1.556	0.729	3.325
EDUCA	Less Than High School vs Some or More College	1.911	0.903	4.044
_RACEGR	Other vs White, Non Hispanic	0.570	0.292	1.113

RESULTS

After controlling for gender, education level and ethnicity, the age groups 35-54 were significantly more likely (p<.001) to experience food insecurity with hunger compared to 18-34 year olds. There were no other significant differences, given the small sample size.

CONCLUSIONS

Additional analyses using the Household Food Security Scale should take into account the inverted "U" shape relationship with age through categorical age group variables or age-squared continuous variables to explore the relationships with additional socio-demographic characteristics. Other variables not in the model, such as number of children in the household, could explain the shape and should be explored. Aggregating multiple years of data will be necessary for adequate sample sizes.