UCLA
UCLA Electronic Theses and Dissertations

Title

Occupy Oakland Movement: A Logistic Modeling Approach To The Analysis of A Social Movement

Permalink

https://escholarship.org/uc/item/03010199

Author

Martinez, Ronald Alexander

Publication Date

2012

Peer reviewed|Thesis/dissertation

UNIVERSITY OF CALIFORNIA

Los Angeles

Occupy Oakland Movement: A Logistic Modeling Approach To The Analysis Of A Social Movement

A thesis submitted in partial satisfaction

of the requirements for the degree

Master of Science in Statistics

by

Ronald Alexander Martinez

2012

ABSTRACT OF THE THESIS

Occupy Oakland Movement: A Logistic Modeling Approach To The Analysis Of A Social Movement

by

Ronald Alexander Martinez

Master of Science in Statistics

University of California, Los Angeles, 2012

Professor Susan Cochran, Chair

In the summer of 2011, thousands of people unified and organized to create what is now known as the Occupy movement. To highlight the reckless financial practices that helped create a global economic crisis and a recession that has adversely affected the majority of Americans the movement's first protest took place on Wall Street in New York. [1] Soon after, in cities across the country, people took to city halls and public spaces to join in the protest against economic and social inequalities. The social unrest displayed was an attempt by these protesters to influence government to the changing order of society. [2]

This study focuses on a smaller but vociferous and fervent branch of the Occupy movement, Occupy Oakland. The City of Oakland has drawn a substantial amount of attention because of the decisions of its Mayor on how to cope with the protesters and the strength used by law enforcement to clear the encampments. Data were collected using a survey instrument designed to capture people who identify with the Occupy Oakland movement. I aim to convey information about the people involved in the movement by analyzing descriptive statistics under the scope of social movement theories. Moreover, through logistic regression I explore whether ethnicity, employment, gender, education or party affiliation

are key indicators for the alignment with the general ideology of this movement, which is to fight for greater social justice and economic equality.

The thesis of Ronald Alexander Martinez is approved.

Nicolas Christou

Jan de Leeuw

Susan Cochran, Committee Chair

University of California, Los Angeles

2012

Dedicated to my wife, my mother, my grandmother

and to all the women who inspire and motivate you to achieve your goals.

List of Figures

List of Tables

CHAPTER 1

Introduction

As defined by Heberle, for a group to be categorized as a social movement, it must aim to bring fundamental changes in social order. Furthermore, groups must foster unification and a sense of solidarity. Group members must be aware of their shared goals and common ideology.[2] The Occupy movement has captured this sense of solidarity in the creed 'We are the 99%.' This statement embodies the fundamental change the movement seeks. As defined by its participants, the goal is to obtain greater social justice and economic equality. The movement's battle cry, 'We are the 99%', takes aim at the wealthiest '1%' and draws attention to the growing inequality between classes.

This movement has no singular leader as of yet, but the message is clear. It is one that yells for equal access to upward mobility. It is evident that these people are vexed by the status quo and want their elected officials to know it. Under the basic principles of psychoanalytic theories of social movements the participants can be classified as individuals who feel they have been prevented from achieving their goals by circumstances out of their control. They are frustrated and feel aggressive toward those they feel are responsible for their situation.[2].

A branch of this movement that has garnered much attention and has peaked local and nationwide interest is the Occupy Oakland movement. Due to the self-defined inclusion, it is nearly impossible and highly impractical to try to select a statistically representative sample. In the current study, a non-probability sample was gathered and used to evaluate the composition and motives of the protesters at the Occupy Oakland encampment.

The purpose of this thesis is to find what kind of people have aligned themselves with the stance and general ideology of this movement, which is to fight for greater social justice and economic equality. It aims to convey information about the people involved in the movement.

CHAPTER 2

Methods

2.1 Data

Professional interviewers were contracted to collect responses from people who were occupying downtown Oakland. For two days, November 9th and 12th of 2011, these trained professionals conducted field interviews in the Frank Ogawa Plaza in Oakland, CA. Respondents were not pre-screened but were approached if they appeared to be participants of the Occupy Oakland movement.

The interviews were conducted at various times of day between 12:00PM and 6:00PM on both days. The interview process created two natural groups; people camping at the plaza and people who were just visiting the encampment. Each interview took approximately 12 to 15 minutes. A total of 109 interviews were conducted.

2.1.1 Limitations

There are several limitations to this study design. The first limitation is a selection bias due to the sampling method. A non-probability sample also known as a convenience or accidental sample was used to gather the data for this study. It is usually thought of as an unrepresentative sample of the entire population because it can suffer from under-coverage, meaning that some portions of the population are not adequately represented. [3]

Furthermore, since the elements are selected based on their convenience or availability at the interviewers discretion, this limits the statistical defensibility of the sample. There is no way of knowing what demographics or other characteristics might have been missed nor is there a way of estimating them. This non-response bias prevents an accurate assessment of the entire population.

Additionally, there is measurement error. The construction of the survey instrument was carefully thought out as to minimize response bias. Yet, there are actions by the interviewers that might have introduced bias. Some circumstances to consider are whether an interviewer made pronunciation errors, incorrectly asked a question, incorrectly entered a value for a response, or if the question was asked in a non-neutral tone. These are errors that can not be accounted for in the data.

Lastly there is sampling error and the consideration of the sample size. There is a chance that the small sample collected might be unrepresentative of the population. The opinions collected might not be in line with those of the general population. The sample size was limited by budget constraints and an obligation to the safety to the interviewing staff. The budget allowed for two days of interviews. The interviews were conducted during specific hours of the day, particularly during the hours with most daylight. These factors limited the sample to a total of 109 interviews.

However, these interviews serve as pilot study to explore the range of opinions and characteristics of people who identify with the Occupy Oakland movement. Although this method is not as statistically rigorous as other methods it facilitated the collection of data on a very specific topic in a cost effective way. Since the definition for being part of this movement is so broad and self-applicable, this method allowed the collection of a good baseline in a short amount of time ad without committing many resources.

2.1.2 Survey Instrument

A survey instrument with a total of seventeen questions was constructed for this study. There were five open questions and twelve closed questions. All questions were clearly defined to minimize response errors. The questions were planned to be in a neutral and balanced form to prevent any bias association. The survey was completely anonymous in that no personal identification data were collected. It was not funded by a third-party client and solely aimed to learn more about what was happening in the community. The first question within the survey was used to filter and capture those who associate with the Occupy Oakland movement. A 'yes' response requested that a respondent continue with the interview while a 'no' response prompted the termination of the interview. The full survey instrument is provided in Appendix 5.1.

2.2 Variable Selection

2.2.1 Dependent Variable

The self-defined objective of the Occupy Oakland movement is to fight for greater social justice and economic equality.[1] Participants were asked to rank three statements in the order that represents which one most accurately describes the reason for participation. The three statements were:

- I am here to show solidarity with the international Occupy Wall Street movement

- I am here to show Bay Area officials that infringing on our freedom of speech is unacceptable

- I am here to fight for greater social justice and economic equality

Respondents of this survey validated the movement's self defined stance with 61% declaring that the fight for greater social justice and economic equality was what brought them to downtown Oakland. A dichotomous variable was created for the analysis. The dichotomous variable was defined by a '1' representing the fight for social and economic justice as the primary reason for participation and a '0' otherwise.

2.2.2   Independent Variables

- Gender: Male was coded as '1' and Female was coded as '0'.

- Age: was regarded as an ordinal categorical variable. The questionnaire contains eleven categories as displayed in Appendix 5.1. Exploratory analysis of contingency tables assisted in collapsing ten of the eleven age categories into three major groups of interest and excluding the refusal category. The three age groups of interest were 18-34, 35-49, 50+.

- Political Party Affiliation: This was an open question. Political parties options were not offered to the respondents. The respondents were asked: 'With which political party do you identify?' The verbatim of the respondents were collected and categories were created. This was treated as a nominal categorical variable for the regression analysis. The categories were Democrat, Independent, no party affiliation and all other responses. Republicans were not considered independently since the collected sample size was very small.

- Employment Status: The question used to obtain employment status was: 'Are you currently working full time, part time, are you currently unemployed, retired, or are you a student?' Three groups were created: employed, unemployed and not in the workforce. The full-time and part-time respondents were grouped and categorized as employed. The category for not in workforce includes respondents that are students and retirees.

- Ethnicity: Respondents were asked to provided the ethnic group with which they identified. There were several categories but after some exploratory analysis, there were two groups of interest; White and all other including the refusal category which are labeled as Not-White.

2.2.3 Regression Anaylsis

Logistic regression models under maximum likelihood estimation methods were created to evaluate whether demographics of the protesters were key indicators for choosing the fight for social justice and economic inequality as the primary reason for participation.

2.2.3.1 Logistic Regression

Logistic regression involves the modeling of a dichotomous variable through the use of a mathematical formula known as the logit function. This function is the basis for the generalized logistic regression model. It is effective in bringing binary data, which does not have a normal distribution, into compliance of probability theory. The logit function constricts the probability estimate values between [0,1] and it allows it to be flexible within that range. The general form of a logistic regression model is:

$$Pr = \frac{e^{\beta_0 + \beta_1 x}}{1 + e^{\beta_0 + \beta_1 x}}$$

Where Pr is the probability of an event occurring, x is the explanatory variable, β_0 is the intercept term, and β_1 is the regression coefficients. The sign of the β coefficient indicates the direction of the curve and the absolute value of the parameter estimate expresses the amount of curvature. [4]

2.2.3.2   Maximum Likelihood

Maximum likelihood was chosen because it is the only method that can handle individual-level data. It is also a general and widely accepted approach to estimation because of its properties. It produces unbiased estimators that are consistent. This means that as the sample size gets larger the probability that the estimates represent the true values also gets larger. This method also produces estimates that are asymptotically efficient and asymptotically normal. The estimates will have standard errors that are as small as those of any other estimation method and are approximately normally distributed. [5][6]

The maximum likelihood method requires finding the values of the parameters that maximize the probability of observing the sample data. For logistic regression the function is:

$$
\begin{aligned}
log[\frac{p_i}{1 - p_i}] \;\; &= \;\; \alpha + \beta_1 x_{i,1} + \beta_2 x_{i,2} + \ldots + \\
&\quad\; \beta_k x_{i,k}
\end{aligned}
\tag{2.1}
$$

The maximum likelihood method computes the values of the parameters so as to make the expression as large as possible. In the case of logistic regression, the dependent variable is assumed to have a binomial distribution and being dependent on the explanatory variables. The maximization of this function is usually done through an iterative, computationally intensive method. [6]

CHAPTER 3

Results

A multivariate model containing all main effects and interactions to the second degree was constructed and used to find the statistically significant indicators. Each non-statistically significant predictor was omitted from the final model. The final model contains two main effects and two interaction terms.

$$
\begin{aligned}
Q9C_{predicted} \ = \ & -0.9808 + 3.6225 x_{Ethn} + 1.5514 x_{Gender} \\
& -3.7714 x_{Ethn,Gender} - 1.2826 x_{Ethn,Age} \quad (3.1)
\end{aligned}
$$

After testing and evaluating several models, it was determined that age, political party affiliation and employment status were not statistically significant predictors. The most revealing outcome was that there was no statistical difference in choosing Q9C as a primary reason between those that were employed, unemployed and people not in the workforce. It was assumed that employment would play a major role in determining whether the fight for social justice and economic equality was a primary reason for participation, yet the results suggest it is not. Furthermore, the investigation of other models showed that there were no statistical difference between the defined age categories but there was a difference when the interaction between age and ethnicity was considered. Lastly, political party affiliation did not lead to any statistical difference in the response to Q9C.

3.1   Goodness of Fit

Examining the output of the model, I first focus on how well the model fits the data. Two statistics were used to evaluate the model's goodness of fit. First was the chi-square statistic of the 'likelihood ratio'. This statistic is a comparison of the null model and the fitted model. It measures the improvement the explanatory variables have by testing whether all of the explanatory variables have a coefficient of 0. Since the test produces a p-value that is less than 0.05, I reject the null hypothesis and conclude that at least one of the coefficients
is not 0.

Chi-Square	DF	Pr > ChiSq
18.3785	4	0.0010

Table 3.1: Likelihood Ratio:Testing Null Hypothesis: BETA=0

The second statistic used to evaluate the fit of this model was the Hosmer-Lemeshow (HL) statistic. The HL statistic uses the current model to calculate predicated probabilities for each observation. It then sorts and collapses the predicted probabilities into groups based on percentiles. The observed and estimated frequencies for each group are computed and compared using the Pearson chi-square statistic. [6] [12] The HL statistic operates under the null hypothesis that the model is a good fit. For this study there are six groups which leads to having four degrees of freedom for the chi-square computations. The results from the HL method are shown in Table 3.2 and Table 3.3. Comparing the observed and the expected frequencies in each of the 12 cells, it is evident that there is agreement within each group. The Hosmer-Lemeshow statistic for this model is 2.1536 and the p-value computed using the chi-square distribution with 4 degrees is 0.7075. With such a high p-value we fail to reject the null hypothesis and conclude that the model is indeed a good fit. The Hosmer-Lemeshow statistic and the likelihood ratio test statistic both support the conclusion of the model being a good fit to

the data.

		Q9C=1		Q9C=0	
Group	Total	Observed	Expected	Observed	Expected
1	13	3	3.21	10	9.79
2	9	4	4.45	5	4.55
3	24	15	14.49	9	9.51
4	36	23	23.00	13	13.00
5	5	5	3.98	0	1.02
6	17	15	15.87	2	1.13

Table 3.2: Partition for the Hosmer and Lemeshow Test

Chi-Square	DF	Pr > ChiSq
2.1536	4	0.7075

Table 3.3: Hosmer and Lemeshow Goodness-of-Fit Test

3.2 Predictability

The next class of statistics were used to evaluate how well the independent variables predicted the dependent variable. These statistics measure the predictive power of the model and are different from the goodness of fit statistics. For example, a model can have a good fit to the data but have low predictive power and vice-versa. The two statistics that were used to evaluate the predictability of this model are the max-rescaled R^2 and the 'c' statistic.

The max-rescaled R^2 statistic is calculated using the likelihood ratio chi-square that was used to measure whether all of the explanatory variables had a coefficient of 0. To obtain the max-rescaled R^2 value you first must compute the generalized R^2 and then divide by its upper bound.[6] For this model the R^2 value is 0.1620 and the max-rescaled R^2 value is 0.2208. This value is interpreted as the improvement over the null model, a model that does not take into account any explanatory variables. The higher the max-rescaled R^2 value, the better. An R^2 value of 0.21 means this model has some predictability and it is better than the null model.

The second predictive statistic is called the 'c' statistic. It is a measure of association based on the number of concordant pairs the model produces. This percentage of concordant pairs refers to the number of times the predicted values by the model agreed with the sample data. In short it tells the number of times the model made the right decision. If the pair did not match up then it is called discordant and if it's too close to call it is called a tie. The Somer's D statistics, which is a calculated by subtracting the number of discordant pairs from the number of concordant pairs and dividing by the total number of pairs, is the basis for the 'c' statistics. The 'c' statistic ranges from 0.5 to 1.0. The closer the score is to 1.0 the better the model is at predicting the response.[8] The 'c' statistics for this model is 0.718 which suggests good predictability. Both the max-rescaled R^2 and the 'c' statistics are substantial evidence to support the claim that this

model has good predictive power.

Percent Concordant	61.8	Somers' D	0.435
Percent Discordant	18.3	Gamma	0.543
Percent Tied	19.9	Tau-a	0.206
Pairs	2535	c	0.718

Table 3.4: Association of Predicted Probabilities and Observed Responses

3.3 Analysis of Estimates

Having evaluated the fit and predictability of the model, I now focus on the maximum likelihood estimates. The output of the model provides coefficient estimates, estimated standard errors, test-statistics for each coefficient under the null hypothesis that the coefficient is equal to 0 and the adjusted odds ratios of the point estimates.

For the final model it can be seen that ethnicity, the interaction between ethnicity and gender and the interaction between ethnicity and age have highly significant coefficients. With a p-value of 0.0414, gender is closest to the conventional significance and just comes in as significant.

Parameter	Est	Standard Error	Wald Chi-Square	Pr > Chisq	Exp(Est)
Intercept	-0.9808	0.6770	2.0990	0.1474	0.375
Ethnicity	3.6225	1.0639	11.5930	0.0007	37.429
Gender	1.5514	0.7607	4.1587	0.0414	4.718
Ethnicity x Gender	-3.7714	1.1637	10.5036	0.0012	0.023
Ethnicity x Age	-1.2826	0.5179	6.1326	0.0133	0.277

Table 3.5: Analysis of Maximum Likelihood Estimates

From the point estimates and their 95% confidence interval it is evident that even though gender is a statistically significant predictor in this model, there is some caution with using this variable. Since the interval includes one, we fail to reject that gender is equal to zero and that the ratio is equal to one.

Parameter	Est	95% C.I.
Intercept	-0.9808	(-2.3077, 0.3461)
Ethnicity	3.6225	(1.5372, 5.7077)
Gender	1.5514	(0.0603, 3.0424)
Ethnicity Gender	-3.7714	(-6.0521, -1.4906)
Ethnicity Age	-1.2826	(-2.2978, -0.2675)

Table 3.6: Wald Confidence Interval for Parameters

There are couple of ways to view and interpret the parameter estimates. The first is through odds ratios. There are a couple of two-way interaction terms in this model. The main effect of each variable must be calculated by setting the second variable equal to zero. Hence, to calculate the effect of ethnicity I set gender equal to zero which results in the respondents that were White females. By doing so, a point estimate of 3.6225 was calculated. To obtain the odds ratio I exponentiated the estimate and arrived at an adjusted odds ratio of 37.431 with a confidence interval of (1.5613, 897.3625). Thus being White and female are positive and highly significant indicators for choosing the fight for social justice and economic equality as the primary reason for participation in the movement. A White female has an odds that is roughly 30 times that of a Not-White female to choose this as a primary reason for participation. To view the effect of White men, I added the interaction coefficient for ethnicity and gender arriving at a point estimate of -0.1489. Exponentiating this I arrived at a point estimate of 0.8617 with a confidence interval of (0.0359, 20.6571). Thus among men, Whites have an odds of identification that is 86% of Not-Whites.

Similarly to get the main effect of gender, I set ethnicity to zero and arrived at a point estimate of 1.5514. Exponentiating this figure gave an answer of 4.7181 (0.1968, 113.1099). That is Not-White men have an odds that is more than four times that of Not-White women to choose the fight for social and economic justice as the primary reason to participate in the Occupy Oakland movement. Furthermore, the point estimate after taking ethnicity into consideration is 0.1086 with a confidence interval of (0.0045,2.6038). Therefore among Whites, the odds for men is roughly 11% that of women to choose social and economic justice as the primary reason to be involved in the Occupy Oakland movement

Category	Odds Ratio	95% C.I.
White men	0.8617	(0.0359, 20.6571)
White women	37.4310	(1.5613, 897.3625)
Not-White men	4.7181	(0.1968, 113.1099)
Not-White women	0.1086	(0.0045, 2.6038)

Table 3.7: Odds Ratio's of Ethnicity by Gender

The other manner to view the combination of the demographics is to plot them against the variable of interest which in this case is Q9C. Figure 3.1 shows what the odds ratios indicated. White women are much more likely than Not-White women to choose the fight for social and economic justice as the primary reason to participate in the Occupy Oakland movement. Among men, Whites are less likely than Not-Whites to choose Q9C as their primary reason as are Not-White men over Not-White women. Lastly, White men are less likely than White women to choose Q9C also.
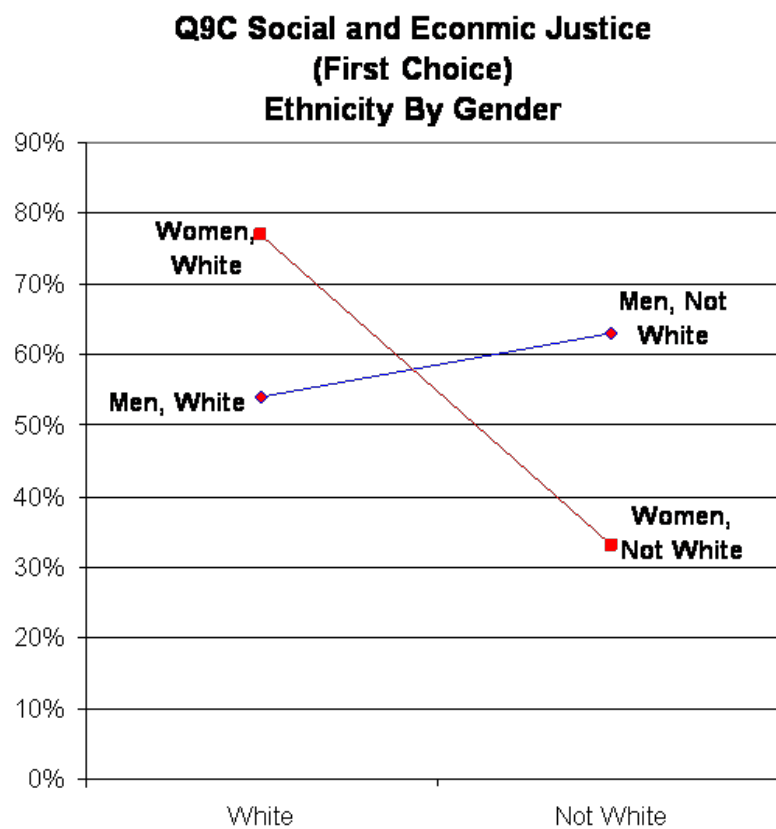
Figure 3.1: Q9C Social and Economic Justice (First Choice) By Ethnicity By Gender

White	Not-White
66% (X,Y)	56% (X,Y)

Table 3.8: Q9C First Choice By Ethnicity

Men	Women
59% (X,Y)	65% (X,Y)

Table 3.9: Q9C First Choice By Gender

White Men	White Women	Not-White Men	Not-White Women
54% (X,Y)	77% (X,Y)	65% (X,Y)	33% (X,Y)

Table 3.10: Q9C First Choice By Ethnicity By Gender

To interpret the effects of ethnicity and age, I chose to use figure 3.2, the graph of the interactions plotted against Q9C, and contingency tables. As displayed in the graph, older White respondents are less likely than all other type of respondents to choose the fight for social and economic justice as a reason for participating in the Occupy Oakland movement. The sign of the point estimate indicates what figure 3.2 displays, which is that the interaction of ethnicity and age has a negative effect. An older, White respondent is less likely to choose Q9C as the primary reason for participation.

The graph also depicts a consistent vote across ages among Not-Whites. Yet, among older White respondents there is a significant decline in the choice of Q9C. Lastly, White respondents 35-40 are more likely than Not-White respondents to choose Q9C as their primary reason for participation.
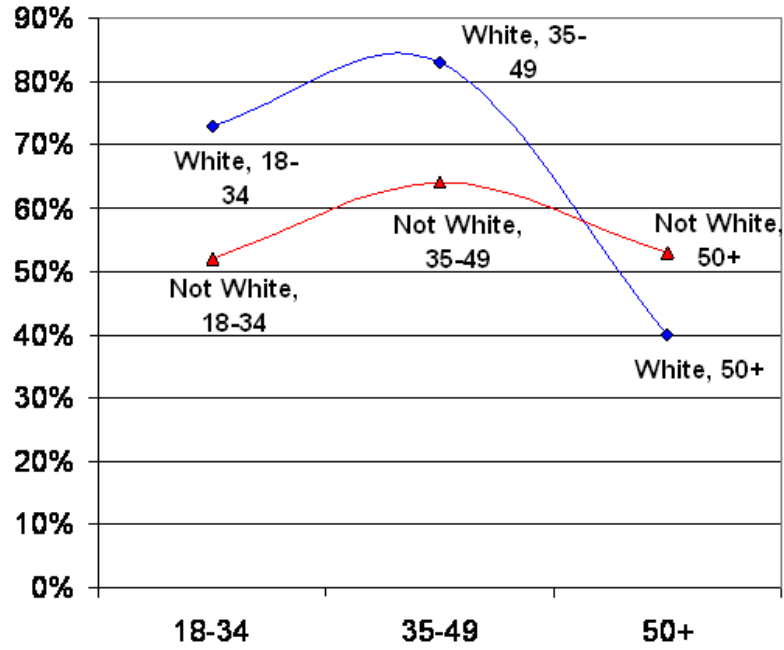
Figure 3.2: Q9C Social and Economic Justice (First Choice) By Ethnicity By Age

White 18-34	White 35-49	White 50+
73% (X,Y)	83% (X,Y)	40% (X,Y)

Table 3.11: Q9C First Choice By White By Age

Not-White 18-49	Not-White 35-49	Not-White 50+
52% (X,Y)	64% (X,Y)	53% (X,Y)

Table 3.12: Q9C First Choice By Not-White By Age

19

3.4 Descriptive Statistics

3.4.1 Local Community Based Protesters

In Grassroots Social Action, Charles V. Willie, David A. Willard, and Steven P. Ridini argue the definition of community and put forth their own hypothesis.

> *Community is a social organization of people that facilitates social interaction between individuals and groups of individuals by way of common bonding, socialization and the implementation of justice for the purpose of supporting and sustaining each member of the collective , as well as promoting general welfare within the context of a common locality.*[9]

They explore and conclude the dominant criteria in defining a community is space and location. The Occupy Oakland movement displays this definition of community by the large proportion of respondents claiming to live in Alameda County or nearby Bay Area cities. A majority, almost three-quarters, 73% with a confidence interval that will be denoted with parentheses (65%, 82%) of the respondents claimed to live in the Bay Area. 60% (50%, 69%) claimed to reside in Alameda County, and a total of 48% (38%, 57%) were from the City of Oakland.

3.4.2 Loyal and Fervent

The Occupy Oakland movement appears to be composed of loyal and fervent followers. A plurality of the respondents, 79% (71%, 87%) said they intend to participate in the movement indefinitely. Occupy Oakland protesters seem to understand the importance of being engaged in the decision making process. As Carolyn J. Lukensmeyer describes in Citizens Strengthening Democracy:

> *Increased participation is a critical solution to the disconnectedness that many Americans feel from their officials and institutional govern-ment*[10]

By staying engaged they are actively promoting their belief in the system. Furthermore, 64% (55%, 73%) of them stated they frequently visited the plaza and 14% (7%, 20%) were first time visitors. A large portion of the people, 21% (13%, 29%) were living at the plaza at the time the interviews were conducted.

3.4.3 Unemployment Rate

The unemployment rate was remarkably high among the respondents. Of the people interviewed, 38% (29%, 47%) were unemployed. That is more than four times the national average of 8.6% in November of 2011 as reported by the Bureau of Labor and Statistics. [11] Furthermore, of the unemployed, 66% (51%, 80%) were between the ages of 18-34. Moreover, 32% (17%, 46%) were between the ages of 20-24.

3.4.4 Personal Outlook

The power of young people is on display but faith among them is dwindling. A glimpse of the despair is evident in their personal outlook. Even though 57% (48%, 66%) of the respondents are under the age of 35, a majority of the respondents were not optimistic about their economic future. When asked about their personal economic outlook, 48% (38%, 57%) replied that it was going to get better while 45% (36%, 54%) believed it would stay the same or get worse.

The view of the current political system is decaying but people have faith in the system and are willing to abide by the rules and engage in the discussion. When asked if they supported civil disobedience, occupying foreclosed building, or violence as a means to accomplishing the movement's goals, 77% (69%, 85%) supported civil disobedience and 69% (60%, 77%) supported occupying foreclosed buildings, yet only 11% (5%, 17%) supported violence. A majority, 80% (72%, 87%) did not support violence.

This is a social movement, not a revolution. They still believe in the principals of the system. They have faith in the process and are not advocating violent revolt against the government. Even though a large proportion are young adults, this is not a revolt led by the youth of society like what has been seen in Egypt, Syria, London or other parts of the world. Of all respondents, 71% (62%, 79%) are planning to vote in the upcoming 2012 presidential elections. It is encouraging to see people actively engaged in the democratic system of our politics, spending their energy and time in an attempt to make a difference in a peaceful manner. Yet, even though these participants do not openly advocate violence, caution should be taken. Civil disobedience is a wide umbrella that can include forms of violence and unlawful behavior.

3.4.5 Political Affiliation

The people who identified with the Occupy Oakland movement are vexed by the status quo of our politics. A majority of the respondents have an unfavorable opinion of both political parties and local public officials. The most unfavorable views are of the Oakland Police Department 76% (68%, 84%), the Republican Party 74% (66%, 83%), and the Tea Party 67% (58%, 76%). What's more, the Democratic Party also has a high unfavorable rating, 43% (34%, 52%). Moreover, the sample was split almost evenly across the three perception ratings of favorable 33% (24%, 42%), unfavorable 30% (22%, 39%), and neutral 34% (25%, 43%) about President Obama.

3.4.6 The Message/Belief

When asked to briefly describe what the Occupy Oakland movement is trying to achieve, responses fell into three major categories. The highest percentage response, 28% (20%, 37%) was to bring people together to create awareness about issues and begin a dialog. The second highest, 25% (17%, 33%) was to make a difference, create change and to contribute to the movement. Lastly, the third category at 17% (10%, 25%) claimed it was to bring economic and social justice to the lives of the '99%'. In a separate question when asked to rank three items in order of which best describes the Occupy Oakland movement, almost two-thirds, 61% (52%, 71%) said it was to fight for greater social justice and economic equality. From these responses, it is evident that the redistribution of wealth is not their primary goal. What should be investigated further and considered pertinent is whether they aim for the redistribution of power.

3.4.7 The Plan

When asked when the movement will have accomplished its goals, the responses were mixed and vague. Though they have a creed, the results and the actions needed are not clear. The most popular response was to have major economic or social changes made. But specific metrics or actions were not presented. There are mixed perceptions among the group. For example, some saw the movement being successful when capitalism comes to an end. Yet, in contrast, others described it as when greater economic justice and equality was achieved through capitalism and when the economy improved.

According to Willie, Willard and Ridini the likelihood of success for a grassroots organization is helped by establishing itself at the local and national level.[9] By establishing a horizontal and vertical linkage it can access resources that can help it grow and establish a better platform from which to negotiate. The Occupy Oakland branch has grown and been resilient to this day because of its horizontal linkage. Local residents have grown to a critical mass and required local attention. Yet, to continue on their path to change, they must accomplish two major milestones. The first is to establish a vertical linkage with the national movement and second is to clearly define the metrics and goals. From the responses gathered, their greatest strength is their numbers and passion and their greatest weakness is the lack of direction. As Willie, Willard and Ridini cite Manuel Castellas in Grassroots Social Action

> *Genuine social change occurs only when movements reflect three basic principles: (1) self-identify as citizens movements operating under the rubric of self-determination, (2) they are locally based and territorially defined, and (3) they tend to mobilize around specific goals.*[9]

Nearly all respondents, 94% (90%, 99%) believe they are having a positive impact on the overall Occupy movement. Moreover, 93% (88%, 98%) think they are mobilizing and bringing awareness to social and economic injustices and 86% (80%, 93%) feel their actions are focusing government attention on social and economic injustice. Yet, only a small proportion had a call for legislation. Only 9% (4%, 15%) requested action to close tax loopholes and make corporations and the '1%' pay more in taxes. Furthermore, 6% (1%, 10%) requested legislation to address the movement's concerns of economic inequality. This low percentage is of concern. As Willie, Willard and Ridini write,

> *While veto actions may interfere with business-as-usual local practices, true justice and a normalization of behavior for all may require federal legislation, federal court decrees, or other forms of federal intervention.*[9]

Yet, many that associate with the movement do not seem to advocate for legislation authority.

CHAPTER 4

Conclusion

In response to the 2008 Recession, thousands of Americans across the nation took to the streets to form the Occupy movement. For many, the American Dream of owning a home, having a stable job and a reliable income became close to impossible to obtain as unemployment and foreclosure rates grew. This study focuses on a smaller yet vociferous and ardent branch of the Occupy movement, Occupy Oakland. The intention of this research was to convey information about the people involved in the movement and investigate whether ethnicity, gender, age, employment status or political affiliation were key indicators for the alignment of this ideology. My approach was to use logistic regression techniques as a means of determining which demographics should be considered relevant. Although a convenience sample was utilized to collect the data sample and it is difficult to statistically validate assumptions, this data set has given a view into the movement's composition and concerns.

After testing and evaluating several models, it was determined that political party affiliation and employment status were not statistically significant predictors. The final maximum likelihood model does however show that Ethnicity, the interaction between Ethnicity and Gender and the interaction between Ethnicity and Age are statistically significant. Among the respondents there was a clear distinction between White females and all other respondents. A White female respondent was much more likely to choose the fight for social and economic justice as the primary reason for participation in the movement. Furthermore, older White respondents were the least inclined to choose this as a primary reason. Surprisingly, employment status was not a relevant factor in choosing social and economic justice as a primary reason. The high rate of unemployment, particularly among the younger respondents initially led me to believe that it would play a determining role.

The Occupy Oakland movement is composed of local residents who ardently support economic justice and social equality for the majority of the population. They are searching for a more equitable way of sharing opportunity, power and resources. They are shining a light on some key issues such as job training, living wages, and access to affordable education with the belief that there is an interdependence and responsibility to invest in each other. It is evident that this movement has grown out of necessity. The length of time it endures and momentum it carries will be based on how and when these issues are addressed. The Occupy Oakland movement is in its infancy and might not fully mature but its power has been felt locally. Although there is a unifying creed, there is a monumental need for synthesized agenda to pursue the change they seek. They must establish vertical linkages and obtain the resources for a better platform and negotiating leverage to influence political action and legislation that will address economic injustices and social inequalities.

CHAPTER 5

Appendix

5.1   Questionnaire

OCCUPY OAKLAND SURVEY
330-163
FT N=109

We're conducting a survey today of people in Oakland who identify with the Occupy movement. Today I am representing an Oakland business that is trying to learn more about the Occupy movement. We are conducting this survey on behalf of the public interest, and are not being paid by any third-party client. The survey is completely anonymous, and will only take a few minutes.

1.   Do you consider yourself a part of the Occupy movement?

                        Yes -- 100%
                        No ---TERMINATE

2.   Where are you from? (Read list)

                        Oakland---48%
                        Alameda County, but not Oakland---------------------12%
                        The Bay Area, but not Alameda County, or----------14%
                        Outside of the Bay Area?------------------------------27%

3.   Which of the following best describes your current living situation?

                        I live at Oscar Grant Plaza or Snow Park, ----------------------21%
                        I live by myself or with friends or roommates ------------------42%
                        I live with family--19%
                        I am currently homeless-- 7%
                        (Other) -- 9%
                        (Refused) --- 1%

4.   Are you currently working full time, part time, are you currently unemployed, retired, or are you a student?

                        Employed full time --------------------------------------30%
                        Employed part time --------------------------------------22%
                        Unemployed --38%
                        Retired --- 4%
                        Student-- 6%

5. **(T)** In the next few years, do you think that your personal economic situation will get better or get worse, or will it stay the same?

                        Get better --48%
                        Stay the same -------------------------------------- 19%
                        Get worse ---26%
                        (DK)--- 7%

6. Would you say that you…

                        Frequently visit Oscar Grant Plaza for Occupy
                        Oakland events, ---64%
                        Occasionally visit the Plaza for Occupy Oakland
                        events, or ---21%
                        Is this your first time here?--------------------------------- 14%
                        (None/DK) --- 1%

7. Now I'd like to ask you about some people and organizations that are active in public life. Do you have a favorable or unfavorable opinion of _____ ?

		Favorable	**Unfavorable**	**(Neutral)**	**(DK/NHO)**
a.	Barack Obama	33%	30%	34%	3%
b.	Jean Quan	14%	51%	28%	6%
c.	The Oakland Police Department	9%	76%	11%	4%
d.	Interim Police Chief Howard Jordan	6%	59%	21%	15%
e.	The Democratic Party	27%	43%	29%	1%
f.	The Republican Party	7%	74%	17%	2%
g.	The Tea Party movement	9%	67%	16%	8%
h.	Labor unions	75%	5%	17%	3%
i.	Journalists	51%	13%	31%	5%

8. In just a few words, what are <u>you</u> trying to achieve with your participation in the Occupy Oakland movement? **(OPEN ENDED- RECORD VERBATIM)**

Community/getting people to come together/teach/learn/create awareness about issues and open a discussion--28%
Make a difference/create change/contribute to the movement and help it grow ---25%
Greater economic and social justice/equality/improve the lives of the 99% --- 17%
Solidarity with overall Occupy movement------------------------------------8%
Start the revolution/riot --7%
More affordable cost of living/economic security ----------------------------6%
Fulfillment, happiness --6%
Greater equality/equal rights --6%
Build an alternative society/participate in direct democracy------------------6%
Peace/end wars ---4%
Greater environmental sustainability/other environmental issues-------------------4%
End corporate control ---4%
End corporate personhood/citizens united -----------------------------------3%
End political corruption/More accountability for corrupt politicians---3%
Reform health care system/health care for all------------------------------3%
Jobs/more jobs/get jobs back from overseas -------------------------------3%
Encampment is a safe place to live---2%
Less funding for prisons/prison reform -------------------------------------2%
Fight homelessness---2%
More freedom--2%
Change the political climate ---2%
End home foreclosures ---1%
Better funding for education---1%
Participate in the political process--1%

Other --6%
Unsure/waiting to see what happens---------------------------------------3%

9.   Next I am going to read you a list of reasons why people might participate in the Occupy Oakland movement. Please rank these three items for me in the order of which <u>most</u> accurately describes why you are here today to the <u>least</u>.

	First	**Second**	**Third**	**NR**
a. I am here to show solidarity with the international Occupy Wall Street movement	19%	41%	33%	6%
b. I am here to show Bay Area officials that infringing on our freedom of speech is unacceptable	13%	31%	50%	6%
c. I am here to fight for greater social justice and economic equality	61%	21%	11%	6%

10.   How much longer do you intend to actively participate in Occupy Oakland events? **(OPEN ENDED-CODE)**

A few more days or less	7%
A few more weeks	1%
A few more months	3%
Indefinitely	79%
Other _____	10%

11. For you, what will be the key sign that the Occupy movement has achieved its goals? **(OPEN ENDED- RECORD VERBATIM)**

Major economic and/or social change/system change/end of capitalism ---16%
Greater economic justice and equality, living wage/equality/others are helped out --13%
The perpetuation and growth of the movement ------------------------------------10%
More jobs/economy improves --9%
Close tax loopholes/making corporations/1% pay taxes --------------------------9%
Legislation addressing the movement's concerns is passed-------------------------6%
Better funding for education--5%
End of corporate personhood/citizens united--5%
Radical political change/end of two party system/viable third party --5%
Electoral reform (public financing, redistricting)------------------------------------4%
Homeless are helped out --4%
Right to camp --3%
Peace --3%
Health care reform --3%
Bank reform/Accountability for economic downturn ----------------------------------3%
Attention to important issues---3%
Freedom to speak out--2%
Peaceful end to the encampment--2%
Fulfillment/happiness---2%
End of police brutality---2%
End of federalism ---1%
When the 1% supports the movement ---1%

Has already achieved its goals --5%
Too complex for "one" thing/no goal---7%
When people say so---3%
Other --6%
Unsure--8%

12.   For the Occupy Oakland movement to accomplish its goals, do you support ....

	Yes	**No**	**(DK)**
[ ]a. Civil disobedience	77%	19%	4%%
[ ]b. Occupying abandoned or foreclosed buildings	69%	21%	10%
[ ]c. Violence	11%	80%	9%

13.   Do you think Occupy Oakland is having a positive impact or a negative impact on...

	Positive Impact	**Negative Impact**	**(No Impact)**	**(DK/ Both)**
a. Large businesses in Oakland	19%	33%	25%	23%
b. Small businesses in Oakland	43%	17%	10%	29%
c. Oakland's reputation nationally	72%	16%	5%	8%
d. Public safety	43%	17%	20%	19%
e. Low-income communities	72%	6%	10%	12%
f. Focusing government attention on social and economic injustice	86%	5%	5%	5%
g. Mobilizing the public to address social and economic injustice	93%	4%	2%	2%
h. The overall Occupy movement	94%	1%	1%	4%

14.   Are you registered to vote?

Yes --- 70%
No -- 30%

15.   **(T)** Do you plan on voting in the upcoming 2012 Presidential Election?

Yes --- 71%
No -- 27%
(DK)--- 3%

16.   **(T)** With which political party do you identify? **(OPEN ENDED)**

Independent -- 15%
Democrat -- 17%
Republican --- 3%
Libertarian --- 0%
Anarchist --- 1%
Former/disillusioned Democrat ------------------------ 7%
Socialist-- 3%
Green --- 10%
Not sure -- 1%
Do not identify with any party ----------------------- 35%
Other _____ ---------------------------------- 8%

17.   **(T)** What is your age?

18-19 -- 6%
20-24 --------------------------------------- 19%
25-29 --------------------------------------- 18%
30-34 --------------------------------------- 13%
35-39 -- 3%
40-44 -- 7%
45-49 -- 6%
50-54 --------------------------------------- 10%
55-59 -- 5%
60+ -- 8%
(DON'T READ) Refused ---------------- 5%

18.   With which racial or ethnic group do you identify yourself? **(OPEN END, CODE)**

Latino/Hispanic -- 6%
African-American/Black-------------------------------- 16%
White/Caucasian -- 54%
Asian/Pacific Islander----------------------------------- 2%
Multiracial -- 5%
Other-- 11%
(DON'T READ) Refused ------------------------------- 7%

Thank you for your time!

Record by observation:

Gender

                                     Male--61%
                                     Female---39%

Respondent Type

                                     Camper ---43%
                                     Visitor --57%

Day of Interview

                                     Nov 9 --64%
                                     Nov 12---36%

References

[1] Peter Katel. *'Occupy' Movement.* CQ Researcher, 13 Jan. 2012: 27-52

[2] Rudolf Heberle. *Social Movement An Introduction to Political Sociology.* Appleton Century Crofts Inc., 1951

[3] Richard L. Schaeffer, William Mendenhall & Lyman Ott. *Elementary Survey Sampling, 6th Editon.* Duxberry Press, 2005

[4] Jay L. Devore. *Probability and Statistics For Engineering and the Sciences, 6th Editon.* Duxberry Press, 2003

[5] Peter J. Bickel & Kjell A. Doksum. *Mathematical Statistics, Basic Ideas and Selected Topics, Volume 1 2nd Editon.* Prentice Hall, 2006

[6] Paul D. Allison. *Logistic Regresson Using the SAS System, Theory and Application.* SAS Institute Inc., 1999

[7] Julian J. Faraway. *Extending the Linear Models with R, Generalized Linear, Mixed Effects and Nonparametric Regression Models.* Chapman & Hall/CRC, 2006

[8] UCLA: Academic Technology Services, Statistical Consulting Group n.d. Web, *Introduction to SAS.* http://ats.ucla.edu/stat/sas/notes2, April 17, 2012

[9] Charles V. Willie, Steven P. Ridini, & David A. Willard. *Grassroots Social Action, Lessons in People Power Movements.* Rowman & Littlefield Publishers, 2008

[10] Carolyn Lukensmeyer, *Citizens Strengthening Democracy, Dream of a Nation: Inspiring Ideas for a Better America, Tyson Miller & Chelsea Green.* SEE Innovation, 2011

[11] Bureau of Labor Statistics U.S. Department of Labor, *Databases, Tables & Calculators by Subject: Labor Force Statistics from the Current Population Survey.* n.d. Web, Nov 10, 2011

[12] David W. Hosmer & Stanley Lemeshow. *Applied Logistic Regression, 2nd Editon.* John Wiley & Sons, 2000