Who Are the "Middle Class?"
A quantitative analysis of central Wisconsin socioeconomic self-report data

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Abstract

The "middle class" is broadly referenced in American politics, but there is no formal consensus about which families are included in the middle class. While commentators could simply designate some "official" meaning for the term "middle class," a definition based upon the way the term is used by individual people could contribute to better political analysis and ultimately increased transparency in government policy. Based on the little research that has been performed on this topic, this study hypothesized that individuals use the term middle class in predictably different ways. Specifically, it was hypothesized that an individual's definition of middle class would increase along with the individual's income. OLS regression analysis of 213 survey respondents found that income was a robustly significant predictor of an individual's definition of middle class. Other theoretically relevant variables like age and voting tendency were not found to have a significant effect on individual understandings of the term.

Keywords: Middle Class, American Politics, OLS

1. Introduction:

Economic recovery plans dominated the 2012 presidential campaign, particularly with regard to how Democratic and Republican federal deficit management schemes would affect middle class Americans. Candidates from both parties were scored by non-partisan analytic organizations on how closely their comments aligned with academic research, industry analysis, and economic and/or political theory. For example, during the second presidential candidate debate between Barack Obama and Mitt Romney, Governor Romney received poor marks for his criticism of President Obama's deficit reduction plan on the grounds that "a recent study has shown the people in the middle-class will see $4,000 per year in higher taxes as a result of the spending and borrowing of this administration."[1]

The Washington Post claimed to catch the Romney camp in a lie by pointing out that his source, an American Enterprise Institute (AEI) report, stated that "among the three [tax policy] scenarios, there's actually not much difference—for households making between $100,000 to $200,000, the burden would be between $2,800 to $5,400 a year through 2022—and the administration's budget falls right in the middle." The report did not suggest that the Obama administration had any explicit intention of changing the tax rate faced by this group.[2] There is some concern, however, that the middle class is insufficiently well-defined to properly scrutinize Governor Romney's claims. For example, if the middle class does not include families who earn between $100,000 and $200,000, then the Post's reaction to Governor Romney's claims—even if true—is irrelevant.

There are at least two ways to approach this problem. The first is to pick some rigidly defined portion of the population to call the middle class. Analysts might propose, as a matter of arbitrary definition, that the middle class is the middle one-third of Americans along the income distribution. Alternatively, middle class could be defined as some set range of purchasing powers with relatively less interest paid to the nominal incomes of that group or its size as a fraction of the total population.[a]

Much of the scholarly literature on the middle class has taken a method of arbitrary definition. For example, in their 2008 article, "What is Middle Class about Middle Classes around the World," Abhijit Banerjee and Esther Duflo[3] offered rigid definitions of middle class in terms of real expenditures per day and justified them by showing how these expenditure groups for the most part overlap middle class groups derived from other popular definitions of middle class, including the group defined by the middle three quintiles on the consumption distribution[4] and the group earning 75-125% of the median household income.[5] Throughout the body of their article, however, Banerjee and Duflo also described middle class groups in terms of employment, educational, or lifestyle characteristics, which suggests that any number of relevant terms not limited to income or consumption rank find precedent as methods of rigidly partitioning and describing different socioeconomic groups.

Any rigid definition of middle class, however, seems to deny the obvious fact that individual people talk about the middle class all the time. More than sixty-five million viewers tuned in to network television to watch Governor Romney make his claim, and the full-length YouTube video of the debate has garnered an additional nearly seven million views to date.[6] Many of those viewers probably think of themselves as middle class, and how government policy affects the middle class is eminently important to them. To merely offer an "official" definition of middle class will alienate some voters from the political conversation. One alternative approach to describing the middle class, and the one used in this study, involves exploring how the term is actually used in the household context.

Little such research has been performed. A 2008 article by Brian Cashell for the Congressional Research Service provided a summary of opinion polls completed by the National Opinion Research Center, Pew Research Center, and the New York Times. Cashell found that respondents across the three surveys consistently described the lower bound of middle class as households earning annual incomes of approximately $40,000; the upper bound varied widely and reached as high as $250,000.[7] In an attempt to explain why responses about the upper bound varied so widely, Cashell suggested that merely being a member of the middle class may play a key role in an individual's feelings of well-being.

This study set out to survey central Wisconsinites about their definition of middle class, building upon Cashell's findings as hypotheses. It was predicted that the lower bound of middle class would not vary dramatically between central Wisconsinites and national responses and that this study's participant population, like those sampled in the studies referenced by Cashell, would tend to give much more variable responses about the upper bound of middle class than the lower bound. Unlike the other opinion polls that have been performed to date, this study also attempted to identify several determinants (or non-determinants) of how individuals define the middle class. Most important among these predictors is the individual's household income, which empirically tests Cashell's hypothesis that individual people's preference for being members of the middle class will cause them to tend to define middle class such that they themselves are members.

The remainder of the article is broken into three parts. The first, Methodology, discusses in greater detail the hypotheses of the study and the methods employed during data collection, including the acknowledgement of several methodological weaknesses. The second, Results, describes the conditions under which some responses were thrown out of the data set and presents both the average response (analogous to the findings of the other opinion polls) and regression results of various theoretical predictors of an individual's upper bound of the middle class. The final section, Discussion, will interpret the findings, reexamine the hypotheses posed in the introduction and in Methodology, and attempt to situate this study's findings in the greater context of political debate.

2. Methodology:

Individual opinions about the middle class were solicited through a self-report survey. Respondent data was analyzed with Ordinary Least Squares (OLS) using Microsoft Excel 2012's Analysis ToolPak and Stata.

2.1 Hypotheses:

This study hypothesized that people generally tend to think of themselves as middle class and attempted to observe this tendency by regressing income as an explanatory variable for the upper bound an individual places on his or her private definition of middle class. It was implicitly assumed in the regression model that the middle class is really a "middle" group, with one group below it (lower class) and one above it (upper class) on the income spectrum.

Cashell translated the dollar-amount income responses from opinion polls into percentile-rank responses, implicitly assuming that individual respondents knew to what *percent* of the American public they referred when they described middle class in terms of *income*. However, the scholarship on, and popular coverage of, the income

gap in the United States unambiguously suggest that the general public is unaware of what the actual income distribution looks like. This study attempted to verify this claim by asking respondents to describe the middle class in both income and percentile terms and comparing the results. It was hypothesized that a lack of knowledge pertaining to the real income distribution would be manifest in these descriptions differing from one another.

Anecdotal evidence suggests that political party affiliation may also be predictive of an individual's definition of the middle class. This evidence often takes the form of accusations: Republicans accuse Democrats of defining the middle class in some inappropriate way and *vice versa*, though there seems to be little consensus on how (larger, smaller, richer, poorer) these definitions differ, and arguments on both sides of the political field generally carry approximately equal weight. Therefore, it was hypothesized that regression analysis would not find any significant predictive relationship between political party affiliation and the middle class definition.

Age was tested as a predictor of middle class definition. It was hypothesized that individuals in the youngest age groups, especially those who are also students, will report opinions basically similar to their parents' opinions. If this hypothesis were right, age would have little effect across the lower and middle age groups. However, the study suspected that across higher age groups, especially retirees, labor market experience would have an off-setting effect on the tendency to define middle class in terms of one's own income. These two assumptions amounted to hypothesizing a non-linear relationship between age and middle class definition, though no specific direction for this relationship was predicted.

Education has also been considered a determinant of an individual's socioeconomic situation in literature about the middle class, but it was omitted from this study for several reasons. Educational attainment data can be expected to provide two distinct pieces of information: whether or not individuals' educations have an effect on the "accuracy" of middle class descriptions, and whether or not individuals' socioeconomic realities affect their perception of how well-off they are relative to everyone else. It was omitted because, first, it is not possible to separate these two insights, which would lead to ambiguities in interpreting regression results. Second, even if it was possible to discriminate between the knowledge-effect and welfare-effect of education, neither may be especially useful. It was not the goal of the study to determine how accurate individual understandings of socioeconomic stratification are, as "actual" or "real" or "correct" details about the middle class were not presumed to exist by the researcher, and education was not expected to be a more reliable descriptor of individuals' standards-of-living than income. Including both a variable for income and for a welfare-effect of education in the regression equation would present the additional threat of collinearity, as both income and education are hypothesized to contribute positively to an individual's welfare.

2.2 Regression Equation:

The basic functional form for the regression equation was

$$\text{UPPERTHRESHOLD} = f(\text{INCOME}(+), \text{LOWERTHRESHOLD}(+), \text{AGE}(?), \text{VOTE}(?)) \qquad (1)$$

where

UPPERTHRESHOLD is the income the respondent designates as the upper bound of middle class;
INCOME is the household income of the respondent;
LOWERTHRESHOLD is the income the respondent designates as the lower bound of middle class;
AGE is the respondent's age;
VOTE is the respondent's reported voting tendencies.

It is typical in regression analysis of income to test for non-linearity by regressing INCOME^2 and/or ln(INCOME). However, the dispersion of incomes within the data set was nearly linear and these terms only suppressed the effect of INCOME on UPPERTHRESHOLD. Non-linear income terms also often represent the assumption of an increasing or diminishing marginal effect, which is not necessarily appropriate in this analysis. For these reasons, these terms were not included in the final specification of the functional form and are not discussed in Results.

INCOME divided by the number of people in the respondent's household was also tested. There was no significant relationship between INCOMEPERHOUSEMATE and UPPERTHRESHOLD. There are two theoretical reasons to exclude these results. First, there is an argument from economies of scale which suggests that the cost of adding a household member decreases with each additional member over reasonable household sizes. In other

words, if a family earning $50,000 annually is designated to be middle class with two children, the addition of another child would not usually compel the members of the household to redefine themselves into a different socioeconomic class. Second, decisions related to labor market contribution and the number of people in the household are, for the most part, made at the household level; how much the leaders of a household choose to work and how many children they choose to support are co-determined. Furthermore, how a family decides to spend their income (in this case, on additional children) was not considered as part of the definition of middle class. For these reasons, these results are not presented in Results or Discussion.

2.3 Data Collection:

Opinions were solicited through a one-page paper survey and an eight-question electronic version of the same survey. Respondents were asked to provide information about their age, whether or not they were currently enrolled as a full-time student, their gross household income from the previous year, and their voting tendencies. Two questions utilized a line-graph that respondents were told represented the income percentile spectrum of American households. Respondents were asked to draw two marks on the line, one which designated the percentile border between lower class and middle class, and one which designated the percentile border between middle class and upper class. The researcher rounded these responses to the nearest tenth percentile, erring toward the center of the distribution. The final two questions obtained the UPPERTHRESHOLD and LOWERTHRESHOLD regression data; respondents were asked to provide the income levels they thought corresponded to the marks they had previously drawn on the line graph.

The paper surveys were distributed at a coffee shop adjacent to the University of Wisconsin-Stevens Point (UWSP) campus. Electronic surveys were distributed online via Facebook and to students and faculty at UWSP via the email notification system Message of the Day. Beyond an initial invitation to participate on Facebook, the researcher neither directly solicited surveys to respondents nor was present while surveys were completed. Electronic survey responses were submitted anonymously to a third-party repository from which they were later downloaded as a complete set.

2.4 Methodological Weaknesses:

The study suffers from several noteworthy methodological weaknesses. The most detrimental to the immediate analysis of the survey was the possibility of misunderstanding the questions. Respondents were asked to provide their household income and were told that "household" refers to the individuals included on the respondent's income taxes. Dependents often reported multiple members of their household (presumably referring to parents and/or siblings) but failed to correspondingly report their entire household earnings. Furthermore, dependents who attempted to report their entire household income are unlikely to have given accurate answers simply because they probably lack complete information about their parents' earnings. As such, young students' responses to the survey are unlikely to be reliable, even if they are hypothesized to share their parents' opinions about the middle class.

Respondents were asked to identify three distinct socioeconomic groups, even if such stratification is not how they themselves would choose to define the socioeconomic spectrum if given the chance. Respondents were explicitly asked to disregard any finer distinctions between lower-middle, middle, and upper-middle classes.

Finally, the study suffers from considerable selection bias. By design, the survey was distributed to individuals within the central Wisconsin region, and these individuals likely have different incomes and opinions than other regionalized groups. The respondents are not likely representative even of their own region, however, because the survey was almost exclusively distributed to students, university employees, and people within one or two degrees of Facebook separation from the researcher. These factors do not necessarily exclude the possibility of drawing meaningful conclusions from the regression analysis, but any conclusions must be phrased in terms of the population actually represented by the sample.

3. Results:

A total of 247 surveys were returned. A survey was thrown out of the final set if any of the responses were missing, obviously incorrect (as with four household members earning zero annual income), or inconsistent with one another (as with the upper bound of middle class below the lower bound in terms of either income or percentile). A total of 34 responses were thrown out, leaving 213 usable data points for regression.

The data set was then divided into two subsets: *<25 Students*, which contained respondents who reported being both currently enrolled as full-time students and younger than twenty-five; and *Sans <25 Students*, which contained all remaining responses not in *<25 Students*. These subsamplings allowed for analysis of trends across all respondents and across only those respondents who were hypothesized to give relatively more reliable responses.

The average respondent was thirty-seven years old and earned about $73,000 of household income in 2012, which corresponds to the seventieth income percentile of all US tax units.[8] Twenty-nine respondents reported a tendency to always or almost always vote Republican and 125 reported a similar Democratic tendency. This large imbalance is attributed to the fact that university students and professors are more likely to be affiliated with the Democratic Party and the fact that most survey respondents are university students or professors. Though respondents represented all one hundred income percentiles, over eighty percent of *Sans <25 Students* responses fell between the twenty-second and eighty-third income percentiles.

3.1 Average Descriptions Of Middle Class:

As expected, the average description of the lower bound of middle class in terms of income ($47,231) did not differ greatly from the results cited by Cashell. *<25 Students* respondents tended to describe the middle class in higher income terms than those outside that group ($62,121-$188,690 compared to $41,660-$159,621), though as was hypothesized, both groups provided nearly identical descriptions of the middle class in terms of percentile. *<25 Students* respondents also tended to describe middle class as slightly larger than those in the *Sans <25 Students* group (an income range $126,569 wide compared to $117,961), but the difference between the average size is considerably smaller than the differences between the limits offered by the two groups, suggesting that across different groups the size of middle class tends to vary less than its position in the income distribution. Also as expected, *<25 Students* tended to vary dramatically more in their descriptions of the middle class in terms of income than the other respondents (standard deviations of $87,759 compared to $20,521; $207,823 compared to $92,271; and $148,351 compared to $84,923 between *<25 Students* and *Sans <25 Students* for lower threshold, upper threshold, and size of middle class in terms of income, respectively). This was not the case with descriptions of middle class in terms of percent, which suggests that the "chunk" of Americans that individual people perceive as middle class does not tend to differ with labor market experience, but that the understanding of the incomes associated with these percentiles does.[b]

The average middle class description in percentile terms included approximately the middle one-third of households, corresponding to incomes from $28,500 to $77,000 on the actual income distribution. The average response in terms of income, however, included households with annual incomes between $47,231 and $167,536, corresponding to households in the fifty-fifth to the ninety-second income percentiles. These two results taken together confirm the hypothesis that people are generally ignorant of the incomes associated with the various income percentiles.

Both average responses suggest that about one third of American households belong to the middle class (though they disagree about the size of the upper and lower classes). However, this does not imply that a third of respondents placed themselves in the middle class. In fact, roughly twice the population considered themselves middle class as would be expected from the average responses: 22.6% of respondents considered themselves lower class; 71% considered themselves middle class; and 6.4% considered themselves upper class.

3.2 Regression Results:

Table 1 lists the regression results. INCOME was a significant predictor of UPPERTHRESHOLD across most specifications. As predicted, LOWERTHRESHOLD was also a significant predictor of UPPERTHRESHOLD, driven largely by the fact that a respondent's LOWERTHRESHOLD response in part defined what their response for UPPERTHRESHOLD could be.

AGE was tested in many ways and was insignificant across most specifications. The dummy variables included in Table 1 do not suggest a quadratic or linear relationship between AGE and UPPERTHRESHOLD; unsurprisingly, AGE and AGE^2 were insignificant in the subsample of interest. Five- and ten-year age dummies were also tested, none of which were found to be significant. However, when five-year age dummies were grouped according to coefficient in the subsample of interest, respondents 25-29, 40-49, and 55 and older were weakly significantly different in their UPPERTHRESHOLD responses from respondents younger than 25, though these groups did not greatly differ from one another (coefficients $53,700, $51,300, $45,300, respectively).

Voting tendencies were insignificant across nearly all specifications and across all specifications of the subsample of interest. REPUBLICAN and DEMOCRAT dummies correspond to survey responses "I always or almost always vote Republican," and "I always or almost always vote Democrat," respectively. These two dummies showed no significance on UPPERTHRESHOLD when tested against a third omitted condition. 3RDPARTY corresponds to the survey response "I always or almost always vote 3rd party/independent," and ISSUEVOTER corresponds to the survey response "I frequently cross party lines when I vote." Regression of all four dummies on UPPERTHRESHOLD against the omitted condition "I don't vote" showed no significance.

Table 1. regression results

		Sans <25 Students		All Responses		<25 Students	
INCOME	(β)	0.382	0.362	0.537	0.543	0.642	--
	(SE)	**0.148	**0.150	***0.174	***0.174	***0.187	--
LOWERTHRESHOLD		2.021	1.967	1.854	1.846	1.845	1.875
		***0.618	***0.611	***0.113	***0.112	***0.092	***0.085
AGE:33-54		-15323.940	-18681.900	8596.664	5832.850	--	--
		16708.780	17114.820	14141.090	14407.960	--	--
AGE:55+		8374.990	36489.410	14292.210	12903.120	--	--
		17431.580	18186.530	18300.180	19284.290	--	--
REPUBLICAN		--	36489.410	--	44057.700	58867.010	--
		--	29738.340	--	*24064.650	39747.670	--
DEMOCRAT		--	21183.610	--	25773.930	20686.130	--
		--	26629.940	--	21566.810	39151.440	--
3RDPARTY		--	-33915.340	--	-11395.920	2923.696	--
		--	27154.960	--	20603.760	33.795.260	--
ISSUEVOTER		--	25726.990	--	38781.940	61528.420	--
		--	28667.660	--	*22837.590	38332.760	--
Observations		155	155	213	213	58	58
Adjusted R-squared		0.259	0.274	0.611	0.618	0.814	0.627
*=p <0.10, **=p <0.05, ***=p <0.01							

One passing remark can be made concerning the overall "fit" of the regression equations. All specifications had greater explanatory power over the entire respondent pool than over the subsample of interest, and this result was driven by the *<25 Students* group. The last column in Table 1 shows the results from a regression which used LOWERTHRESHOLD as the only explanatory variable for UPPERTHRESHOLD in the *<25 Students* group. This variable alone accounts for more than seventy-five percent of the explanatory power of the full specification within that subsample (62.7% of 81.4%), suggesting that, as a group, young students defined UPPERTHRESHOLD based more strongly on their answer to LOWERTHRESHOLD than any other consideration. This tendency was driven in large part by the existence of two outliers with $500,000 LOWERTHRESHOLD and $1,000,000 UPPERTHRESHOLD responses. The regression for *All Responses* is consequently biased toward higher explanatory power, so all discussion about regression results will refer only to the subsample of interest.

Park tests for heteroskedasticity were run on INCOME and LOWERTHRESHOLD. These tests did not suggest heteroskedasticity to be a concern in the regression, and the robust standard errors provided by Stata were not dramatically different from the standard errors calculated by Excel.[c] Table 1 contains the Stata output.

4. Discussion:

4.1 Confidence In Regression Results:

Regression analysis found that an individual's income has some explanatory power over how that individual defines the middle class. When individuals talk about the middle class, the income of the group to which they refer increases by about forty cents for every additional dollar of annual household income earned by their household. INCOME was a robustly significant predictor of UPPERTHRESHOLD even when the effect of LOWERTHRESHOLD was included. Because there is a strong theoretical reason to suspect that

LOWERTHRESHOLD is itself a function of INCOME, including LOWERTHRESHOLD in the regression should increase the standard errors of INCOME; some of the explanatory power of INCOME is caught up in LOWERTHRESHOLD because LOWERTHRESHOLD is itself a function of INCOME. These higher standard errors increase the likelihood of committing a Type II error: a true significant relationship between INCOME and UPPERTHRESHOLD is more likely to be rejected as a result of the bias. In short, this study found a strong relationship between respondents' incomes and how they define middle class despite the fact that problems with the regression equation biased the study in a way that makes discovering this relationship more difficult.

4.2 Reexamination Of Hypotheses:

The existence of a significantly positive relationship between INCOME and UPPERTHRESHOLD confirms the hypothesis that individuals tend to define middle class such that they themselves are included. The magnitude of this coefficient also seems reasonable: because the coefficient is less than one, it is expected that some people will consider themselves upper class. On the equation generated by this study, individuals who define the lower bound of middle class near $40,000 can be expected to consider themselves middle class until their incomes rise to about $170,000.[d] However, additional research is required to determine if high incomes are indeed related to an increased incident of individuals defining themselves as upper class, even if aggregate models suggest this to be the case.[e]

The several analyses of age in this study failed to find any meaningful relationship between age and how people describe the middle class. When samples were divided into highly contrived subgroups, some weak evidence was found that these groups tended to describe middle class in different terms than people younger than twenty-five. However, there is not enough theoretical evidence to justify this particular configuration of dummy variables or to justify further interpretation of these results.

The lack of a significant relationship between VOTE and UPPERTHRESHOLD did not come as a surprise. Many of the anecdotes that suggest one party or another will define middle class in some particular way have foundation in beliefs about the relative incomes of that party's members. This study suggests that the foundational relationship between party affiliation and income fuels the entirety of any explanatory power peoples' party affiliations have on their definition of middle class. In other words, after respondents' incomes are accounted for, their voting tendencies had nothing more to tell about their definitions of middle class.

Broadly speaking, these results support an unenlightening suggestion that individual political opinions are driven in part by individual income levels. Contrary to popular belief, however, this study suggests that people with very high relative incomes do not tend to view political policies through a different lens than those with median incomes. Presumably, voters most interested in how government policy affects middle class will be those who consider themselves middle class, but if the findings of this study are correct, the middle class topic dominates politics because many more people consider themselves middle class than would be expected from any average definition of middle class. It has already been suggested that merely creating a strict definition of middle class alienates voters who fail to meet the definition but who would otherwise consider themselves middle class. It must also be noted that any average definition of middle class based upon voters' opinions (like those offered in section 3.1) will necessarily miss many details. Rather than either of these methods of describing this important group, a step in the right direction might be defining some equation into which an individual's characteristics may be entered and whose output is the socioeconomic class to which the individual belongs, based on models like that generated in this study.

4.3 Further Research:

As research on this topic continues and more explanatory variables are examined, the accuracy of a "class equation" will increase. For small regions, like central Wisconsin, it might be sufficient to consider the variables examined in this study. For wider regions, however, local price level variables and regional dummies should be included to capture cost-of-living differences in different areas and any regionalized political opinions that may affect socioeconomic stratifications.

While such an equation will probably be of mostly academic interest, it could be applied to policy analysis by non-partisan fact-checking groups as a more precise method of defining their groups of interest. If the average percentile description of middle class from this study were used, for example, the AEI report about debt restructuring burdens would be completely irrelevant to commentary about the middle class. If the regression equation were used instead, Governor Romney's comments could be directly compared to the findings from the AEI report and the Washington Post's claim that Governor Romney was lying would be substantiated, because substantial middle class membership extends over the $100,000 to $200,000 income range. If nothing else, this study highlights the dubiousness of any

sweeping claims about the middle class and suggests that a more accurate definition of middle class based upon the way the term is used by individual people could lead to better political analysis and ultimately increased transparency in government.

5. References:

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6. Notes:

[a] "Purchasing power" refers to the amount of goods and services which can be purchased with a unit of currency. Holding purchasing power constant means identifying a consumption bundle that characterizes middle class consumption habits and defining the middle class as those households which earn enough income to consume the given bundle.

[b] This is not to suggest that *Sans <25 Students* understandings of the relationship between incomes and income percentiles are necessarily more accurate than *<25 Student* understandings. It merely notes that *Sans <25 Students* responses tend to vary less from one another than do *<25 Students* responses.

[c] This is potentially an interesting non-result. It might be expected that, as the lower bound of middle class increases, so does the size of the middle class. In other words, as a respondent considers middle class to refer to higher-income households, it would perhaps not be surprising to observe that respondent also defining middle class to include a larger number of households. This was not observed in this study's sample; the absolute size of middle class did not tend to change along with its position on the income distribution.

[d] UPPERTHRESHOLD = 30,692 + 0.362(INCOME) + 1.967(LOWERTHRESHOLD = 40,000) + 0(AGE) + 0(VOTE). This equation crosses the line UPPERTHRESHOLD = INCOME at INCOME near \$171,000.

[e] Intuitively, high incomes might be expected to increase the probability that a respondent defines themselves as upper class, but this study's results seem to suggest that this relationship, if it exists at all, is extremely weak. Given a sample size of only 213, it isn't possible to investigate this issue in more detail. If similar studies are performed in the future, researchers might analyze whether or not individuals' incomes are a significant predictor of the socioeconomic class into which they place themselves. One way this could be tested would be to build a multinomial logit system of two equations, one which regressed the probability that the ith respondent's income was higher than his or her upper threshold (the respondent considered him/herself upper class) on the respondent's income; and the other which regressed the probability that the ith respondent considered him/herself lower class on the respondent's income. This analysis would be asking a fundamentally different question than that explored by OLS in this study: is an individual's income a significant predictor of which socioeconomic class the individual

considers him or herself a part? An answer to this question would help analysts better situate the apparently nebulous concept "middle class" in its context of private definition-making.