A COMPARISON OF TWO MEASURES OF SOCIAL CLASS

by

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I dedicate this research to my family, my friends, and those who seek to see through the sociological lens.

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ABSTRACT

The purpose of this study was to examine whether a significant difference exists between two different measures of social class. Respondents' self-reports of social class were compared to their classification based on a social class index derived from socioeconomic indicators. This study found a significant association between the two measures of social class. Except for those classified as upper class by the social class index, most respondents tended to over-report their social class. Furthermore, this study found that the divergence between the two measures was significantly associated with educational attainment for non-Whites and Whites. Differences between self-reported social class and classification by the social class index tended to diminish as the level of educational attainment increased for under-reporting and matching reporting; however, it increased for over-reporting. The hypothesis that the effect of education on the difference between self-reported social class and the social class index will follow a different pattern within levels of race was rejected for respondents with less than a high school diploma; however, the hypothesis was supported for respondents who had a high school diploma or attended college. The findings demonstrate the complexity of measuring and predicting social class.

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INTRODUCTION

The purpose of this study was to examine whether a significant difference exists between two different measures of social class. Respondents' self-report of social class was compared to their classification based on a social class index derived from socioeconomic indicators. This study thus examined the extent to which self-reports of social class converged or diverged from an objective measure of social class in the United States (US). The pattern of mismatch between the two measures was examined in relation to educational attainment and race, factors that are known to be significantly associated with the discrepancy between self-reported personal information and objective methods of measurement (Aneshensel et al. 1987).

Class is a construct that both sociologists and non-sociologists utilize as a method to categorize members of society according to the amount of economic power they possess. More than this, it is a ranking system that places members of society into a stratified social hierarchy (Gilbert 2011). By viewing the social world through the lens of class, members of society can be compared to one another with respect to their location within the class system. The term social class refers to a category that describes the general location of respondents within the class system (Kreiger, Williams, and Moss 1997).

Generally, two approaches have been utilized by sociologists to measure social class. One approach is subjective (Liu 2011; Lowis 1971). The subjective approach involves asking individuals to position themselves in one of the hierarchical social class categories, based upon self-evaluation of their social class. The subjective approach assumes that individuals have a clear understanding of what the predetermined categories

mean and that they can more or less precisely determine which category they fit into (Evans 1997). This is the approach used in surveys such as the General Social Surveys (GSS) conducted by the National Opinion Research Center (NORC) (Smith et al. 2011).

An alternative approach involves assigning people to social class categories, based upon a set of criteria that affect economic outcomes for individuals and families, namely education, occupation, and income (Liu 2011). Liu (2011) calls this an objective measure of social class, since an index consisting of these variables is assumed to be objective. Purportedly, these criteria more objectively assess social class position when compared to self-reports, in the sense that it takes the decision about class membership out of the hands of individuals who may have a tendency to report differently than the objective method of assessment would suggest (Jackman and Jackman 1973; Lowis 1971). The objective method of measurement combines multiple indicators into a numerical composite score that represents respondents' ranked social class (Bergman and Joye 2005).

Class is frequently used for analysis, as it affects many aspects of people's lives, such as attitudes (Evans 1997), educational attainment (Bond 1981), health (Schnittker and McLeod 2005), life chances (Weber [1914] 1978), lifestyles (Weber [1914] 1978), justice (Seron and Munger 1996), and social mobility (Kaufman 2005) to name a few. Due to the frequent use of class for analysis, this study is important for methodological reasons.

Methodologically, researchers have examined how much self-reported data differs from external measures for constructs such as outpatient medical care use (Cleary and Jette 1984), body weights (Perry et al. 1995), and education (Kuncel, Crede, and Thomas.

2005). In the case of social class, self-reports of social class have been compared to objective measures derived from socioeconomic indicators. However, the disparity between the two measures is not routinely analyzed, despite the observation by Kreiger et al. (1997) that "developing consistent and broadly comparable measures of social class and other aspects of socioeconomic position that can be incorporated into a wide variety of federally and privately sponsored data sets is essential" (p. 370).

It is important to assess the discrepancy, if any, between subjective and objective measures of social class in order to determine the utility of either measure. If no difference exists between the two measures, then the measures can be used interchangeably for class analysis. However, if there is a significant difference, researchers can better ascertain the appropriateness of which measure to use under different circumstances. It is also important to examine why self-reports differ from objective measures of social class.

Using data from the 2000-2010 GSS, I measured the social class of respondents from a set of socioeconomic indicators and compared this outcome with respondents' own report of their social class. I then examined the extent of the disparity and the pattern of divergence between the two measures in relation to educational attainment and race.

LITERATURE REVIEW

Conceptualizing Social Classification

The term class is etymologically rooted in the Latin word 'classis,' which was utilized by the Roman Empire to differentiate between persons according to their level of wealth (Mey 2009). Due to the wide use of the term 'class,' by both sociologists and non-sociologists, and that the terms 'social class,' 'social class position,' and

'socioeconomic status' (SES) "have been used interchangeably in the extant literature" (Liu 2011: 47), the meaning has become unclear (Lareau and Conley 2008; MacLeod, Davey, and Hart 2005). A good definition, however, is provided by Ritzer (1997), who refers to class as a system of stratification that divides a society into hierarchical social positions. This means that class is not only a classification system, but also a ranking system. Social classes are thus hierarchically stratified categories within the class system. The system consists of socioeconomic positions (social class positions) that can be grouped and categorized into social classes, based upon subjective or objective criteria (MacLeod et al. 2005). Each social class comprises individuals that share a common location within the hierarchy (Kreiger et al. 1997). The term social class position is commonly used to precisely describe the locations of individuals, based upon the "distributions of occupations, income, wealth, education, and social status," which are the "diverse components of economic and social well-being" of individuals (Kreiger et al. 1997: 345).

Social class position is commonly determined by measuring respondents' SES. For the purposes of this paper, the construct social class is used in place of social class position and SES to describe where respondents are located within the class hierarchy. This is necessary, because the data set utilized for this study commonly uses the term social class instead of social class position or SES. The term social class is used in this general sense for the common everyday meaning that is implied by the GSS. The most commonly designated social classes in the US are the lower class, the working class, the middle class, and the upper class (Ritzer 1997; Kohn 1979).

The social class of individuals is not only a relative location within a stratification system; it is also a reflection of how much power they possess to utilize economic and social opportunities to improve their quality of life (Weber [1914] 1978). The possession of economic power enhances life chances for individuals and their offspring (Wright 2002). Market situation differentials mark the dividing line between social classes. Thus, an important characteristic of a social class is that members share common life chances quite distinct from members of other classes. Furthermore, the distinction between classes can be measured. It is important to reliably and validly measure social class when engaging in class analysis, because sociologists frequently use class to explain inequalities that are due to market situation differentials.

Measuring Social Class

Bergman and Joye (2005) observed that the "conceptualization and measurement of social stratification is at once one of the best established, most complex, and most disputed areas in the social sciences" (p.3). Due to this, there is no agreed upon measure of social class (Haug and Sussman 1971; Liu 2011). Jackman and Jackman (1973), Liu (2011), and Lowis (1971) found that disparities exist between self-reported social class and indices that measure the same construct. Therefore, it is important to examine how much disparity exists between different measures of the same construct and why there is a disparity, for methodological reasons. In applications of objective and subjective measures of social class in the area of health, for example, researchers have reached conflicting conclusions about the equivalency of both approaches of measuring social class. Singh-Manoux, Marmot, and Adler (2005) and Cohen et al. (2008) found that the two measures produce different results, concluding that a subjective measure of SES is a

better predictor of health and change in health status than an objective measure. Furthermore, Gong, Xu, and Takeuchi (2012) strongly stressed that subjective social status is a superior measure when examining the effect of SES upon health. However, MacLeod et al. (2005) found that subjective SES and objective SES predict health status consistently. Similar discrepancies exist in crime research. Hirschi, Hindeland, and Weis (1982) found that subjective SES and objective SES consistently predict crime rates, while Kleck (1982) urged researchers to use objective measures in favor of subjective measures, for they more validly predict crime rates.

Constructing an Index to Measure Social Class. Social class can be objectively measured by combining data on education, income, and occupation into an index (Ritzer 1997). Hollingshead and Redlich (1959) and Duncan (1961) were some of the first researchers to apply statistical ideas to the measurement of social class position by constructing generalizable indices. Hollingshead and Redlich (1959) developed the *Two Factor Index of Social Position,* which measured social class position by combining information on educational attainment and occupation, into a single index. They applied the index to examine the stratification structure of a sample consisting of 3,559 households within the New Haven, CT population. The Two Factor Index was not capable of examining social class position for a larger population, such as the US. It was designed specifically to examine the New Haven community (Hollingshead 1971).

Duncan (1961) developed the *Socio-Economic Index*, which measured social class position by ranking individuals according to their educational attainment level, individual income, and occupational prestige. The Socio-Economic Index expanded upon the Two Factor Index by including occupational income as a third indicator. The issue with the

Two Factor Index of Social Position and the Socio-Economic Index is that they are not universally valid indices for measuring social class, there is a low correlation between the two indices, and they are more useful as measures of social status than class (Haug and Sussman 1971; Hollingshead 1971).

More recent works in this area include Schooler and Schoenbach (1994) and Gilbert (2011) who expanded upon the Socio-Economic Index by using four indicators, namely, respondents' income, educational attainment, occupational prestige, and wealth. Bergman and Joye (2005) examined other major stratification indices that are commonly utilized. They examined the correlation between "the Cambridge Social Interaction and Stratification Scale (CAMSIS), the Treiman Prestige scale, Olin Wright's class structure, the International Standard Classification of Occupations (ISCO-88), and the Swiss Socio-Professional Categories (CSP-CH)" (Bergman and Joye 2005: 2). The items contained in these indices are some combination of educational attainment, individual or family income, occupation, occupational prestige, and wealth. They concluded that despite the variations that exist in the items used in different indices, the indices correlate with each other and are similar regarding their predictive validity to such an extent that the validity of the indices has been widely supported across time and the globe. Educational attainment, total family income, and occupational prestige represent the most acknowledged and commonly found objective indicators of social class position (Liu 2011).

There is some controversy as to whether it is personal or family income that should be included in a social class index. Liu (2011), Kreiger et al. (1997), and Sorensen (1994) found that family income is a better indicator to use. Adults and

children that live together in a family are positioned in the same social class because they are assumed to share similar material conditions, life chances, and standards of living; therefore, total family income should be measured in favor of respondents' income (Liu 2011; Sorensen 1994).

Self-reported Social Class. The subjective approach involves asking respondents to identify themselves within a social class hierarchy that is defined by the researcher (Ritzer 1997). This approach assumes that individuals have a clear understanding of what the predetermined categories mean and that they can more or less precisely determine which category they fit into (Evans 1997). However, unintentionally or deliberately, respondents do not always report honestly (Macdiarmid and Blundell 1998).

Many studies have examined the accuracy of self-reporting on a number of socioeconomic issues. For example, Cleary and Jette (1984) found that samples of respondents had a tendency to both under- and over-report outpatient medical care use. Similar findings were reported by Perry et al. (1995), who found that respondents had a tendency to both under- and over-report their body weights. Furthermore, in the sphere of education, Kuncel et al. (2005) found that American students tended to under- and over-report their grade point averages. Relating to social class, Lowis (1971) found that respondents had a tendency to under and over-report their social class. In all these situations, over- and under-reporting were particularly associated with educational attainment, race, and age, among other factors (Aneshensel et al. 1987; Bellon et al. 2000; Manjer, Merlo, and Berglund 2004; Perry et al. 1995).

There are diverse findings regarding the effect of educational attainment on reporting differences. Bernstein, Chadha, and Montjoy (2001) found that as educational

attainment increases, over-reporting increases. Hirvonen et al. (1997) found that persons with high educational attainment tended to under-report. Navarro et al. (2006) argued that persons with high levels of educational attainment tended to respond the most accurately. Lagerros et al. (2006) found that respondents with low levels of educational attainment tended to over-report. Regarding the effect of race on reporting differences, there are also mixed results. Bernstein et al. (2001) found that a larger proportion of non-Whites tended to over-report more than Whites. A study by Perry et al. (1995) found that Whites tended to over-report while non-Whites tended to under-report. Aneshensel et al. (1987) found that Whites tended to make matching reports more than non-Whites.

When examining self-reporting of social class, Cleary and Jette (1984) found that a sample consisting of adults has higher validity than samples consisting of younger persons. Measurement of social class can be more appropriately engaged in after individuals are more firmly established in their social class positions (Kreiger et al. 1997). For example, if respondents, such as young adults and college students, have not firmly established their positions within a social class, their location within a social class may be unstable or underdeveloped. In comparison to younger persons, older respondents' self-identification of social class is more reliably reported (Schwarz 1999).

Hypotheses

How do respondents' self-reports of social class match with the social class index method of measurement? Given that some respondents misstate their social class, as reported by Jackman and Jackman (1973), Liu (2011), and Lowis (1971), self-reports cannot be expected to perfectly match classification by the social class index method. Although Liu (2011) has argued that respondents' report of their social class may match

objective measures, some understatement and overstatement relative to the social class index will most likely occur. Furthermore, the social class of respondents may not differ much when the two measures are examined. Under these considerations, the following hypotheses were tested: (1) self-reported social class is significantly associated with measurement of social class by socioeconomic indicators, in that they are measuring the same construct, (2) the differences between self-reported social class and classification by the social class index will diminish as the level of educational attainment increases, and (3) the effect of education on the difference between self-reported social class and the social class index will follow a different pattern within levels of race.

METHODS

This study analyzed data from the 2000-2010 GSS (Smith et al. 2011). The GSS is conducted by the NORC using a personal interview methodology. The GSS is representative of the non-institutionalized, English and Spanish-speaking persons that reside in households within the continental United States. The sample for this study (N=2,164) was selected from the GSS, based upon the criteria that participants be at least 40 years of age and work full-time.

Measures

Self-reported social class. The item selected from the GSS to measure respondents' self-identification of their social class position is: *If you were asked to use one of four names for your social class, which would you say you belong in: the lower class, the working class, the middle class, or the upper class?*

Social Class Index. Based on prior research (e.g., Liu 2011), I selected the following items in Table 1 to create an index that will measure respondents' social class.

Table 1. Items for Social Class Index

Item	Level of Measurement	
Highest year of school completed	Interval	0 = No formal schooling 1-12 = 1st – 12th grade 13-20= 1-8 years postsecondary education
Total family income	Ordinal	1= Under $1,000 2= $1,000-$1,999 . . . 25= $150,000 and over
Occupational prestige	Interval	10-89

Reliability

      The inter-item correlations (Table 2) for the three selected items are between 0.40

and 0.70, which suggest that all items are related to the same construct of social class

(Blais et al. 1990).

Table 2. Inter-Item Correlation Matrix of Social Class Index (*N* = 2,164)

Occupational	Highest Year of School Completed	Total Family Income	Respondent's Prestige Score
Highest Year of School Completed	1.00		
Total Family Income	0.41**	1.00	
Respondent's Occupational Prestige Score	0.55**	0.40**	1.00

** p < 0.01; Standardized α = 0.71

I assessed the reliability of the social class index using the standardized

Cronbach's alpha to ensure that the means and variances for all items contained in the

index have been equalized (Blais et al. 1990). This is necessary, because the three items

are measured differently. Cronbach's alpha of 0.71 indicates a strong reliability of the

social class index composed of the three items.

Validity

Hollingshead (1971) questioned whether indices are valid predictors of the

distribution of individual class positions and classes within the US class system.

However, the predictive validity of social class indices containing educational attainment,

family income, occupational prestige has been supported (Gilbert 2011; Liu 2011). For

example, Gilbert (2011) found that a social class index containing the three items was

significantly associated with happiness, health, and home ownership. Liu (2011) found

that it was significantly associated with health, parent and children relationships, and

sleep habits while Bergman and Joye (2005) found that it was significantly associated with gender, ethnicity, and region.

Social Class Boundaries

I used Gilbert's analysis of the American class structure to establish class boundaries. The scores on the social class index were collapsed to their equivalences of the self-reported categories in the GSS using the percentage distributions reported by Gilbert (2011).

Gilbert determined that in the US, the capitalist class represents 1% of the population, the upper middle class represents 14%, the lower middle class represents 30%, the working class represents 30%, the working poor represent 13%, and the underclass represents 12% (Gilbert 2011). I equated Gilbert's capitalist and upper middle classes with the self-reported upper class in the GSS. These form the top 15% (85th percentile) of the social class index. Similarly, Gilbert's lower middle class is equivalent to the middle class in the GSS (between the 55th and 85th percentile of the social class index). The working class (25th to 55th percentile) corresponds to the same description in Gilbert's scheme, while the lower class (bottom 25% of the social class index) corresponds to the working poor and the underclass in Gilbert's model.

Statistical Procedures

In order to test hypothesis 1, I began with a cross-classification table of the two measures of social class. I examined the extent to which the two classifications matched by comparing percentage distributions. I also tested for the significance of association between the two variables and the strength of association using chi-squared and gamma for ordinal variables. In the extremes, a gamma of 0 means that respondents' self-reports

are randomly distributed. A gamma of -1 means that respondents' self-reports are perfectly mismatched from the objective classification. A gamma of +1 means they are perfectly matched. If gamma is positive but less than 1 (i.e. $0 < \gamma < 1$), respondents' relative positions on the two measures are less than perfectly matched. Gamma is a proportional reduction in error (*PRE*) measure and so the amount of error (*E*) in self-reported social class and the social class index for this sample can be measured as $E = 1 - \gamma$ to test hypotheses 2 and 3 (Wagner 2010).

In order to identify respondents for whom the two measures match (self-report = social class index) or mismatch (self-report ≠ social class index), I scored the two measures in the same way as follows: 1=Upper Class; 2=Middle Class; 3=Working Class; 4=Lower Class. I found the mismatch by the equation $M = S - O$, where M = Mismatch, S = self-reported social class, and O = social class index. When M is positive, respondents report higher social class because their self-report scores are higher than the scores on the social class index. When M is negative, respondents report lower social class than their classification by the social class index will indicate. A score of zero identifies respondents whose self-reports match with their classification by the social class index.

Reclassification of respondents into under-reporters, matching-reporters, and over-reporters helped to test hypotheses 2 and 3 that relate respondents' education and race to the likelihood of mismatch. I used cross-classification tables with elaboration and chi-squared tests to assess (a) the relationship between reporting accuracy and level of education (Hypothesis 2) and (b) the relationship between reporting accuracy and education within levels of race, i.e., separately for White and non-White respondents (Hypothesis 3).

RESULTS

Descriptive Statistics

Table 3 shows a cross-classification of self-reported social class and the social class index. The table reveals that 5% of respondents classify themselves in the top and bottom social class categories as upper class (2.5%) and lower class (2.5%). Compared to Gilbert (2011), the percentage subjectively reporting as upper and lower class is particularly low in this sample. The social class index classifies 248 respondents (14.3%) as upper class and 437 respondents (25.2%) as lower class. The table also reveals that 95% of respondents classify themselves as middle class (43.8%) and working class (51.2%), whereas, the social class index classifies 552 (28.7%) as middle class and 498 respondents (31.8%) as working class. Compared to Gilbert (2011), the percentage subjectively reporting as middle and working class is particularly high in this sample.

Table 3. Subjective Social Class by Objective Social Class ($N = 1,735$)

Subjective	Objective Social Class				
Social Class	Upper Class	Middle Class	Working Class	Lower Class	Total
Upper Class	16	21	2	5	44
	(6.5)	(3.8)	(0.4)	(1.1)	(2.5)
Middle Class	180	320	166	89	760
	(72.6)	(58.9)	(33.3)	(20.4)	(43.8)
Working Class	52	200	323	313	888
	(21.0)	(36.2)	(64.9)	(71.6)	(51.2)
Lower Class	0	6	7	30	43
	(1.0)	(1.1)	(1.4)	(6.9)	(2.5)
Total	248	552	498	437	1,735
	(100)	(100)	(100)	(100)	(100)
%'s in parentheses	$\chi^2 = 342.48$; ($p < 0.01$)		$\gamma = 0.58$ ($p < .01$)		

Table 3 further reveals that overall, 694 respondents (40.0%) self-reported a social class that perfectly matched with their classification on the social class index. For example, of the 248 (14.3%) respondents that were identified as upper class by the social class index, 16 (6.5%) reported a social class that matched the index and 232 (93.5%) under-reported. Of the 52 (28.7%) respondents that were identified as middle class by the social class index, 206 (37.3%) respondents under-reported, 325 (58.9%) reported a self-report that matched, and 21 (3.8%) over-reported. With regard to the working class, of the 498 (31.8%) respondents that were identified in this category by the social class index, 7 (1.4%) under-reported, 323 (64.9%) reported a self-report that matched, and 168 (33.7%) over-reported. Furthermore, of the 437 (25.2%) respondents that were

objectively identified as lower class, 30 (6.9%) reported a class that matched with the index and 407 (93.1%) over-reported.

Bivariate Analysis

A chi-squared test shows that the two measures of class are significantly associated (χ^2 = 342.48; p < .001). The reported gamma of 0.58 indicates a moderately strong and positive association between the two measures. The positive association suggests that the relative position of respondents is fairly matched on both measures. However, γ = 0.58 shows that the match between the two measures of social class is not perfect. As a PRE measure, this indicates how much error is reduced when we try to predict self-reported social class by taking into account the social class index. The model predicts respondents' social class 58% of the time.

Table 4. Association between Reporting Accuracy and Educational Attainment Level (N = 2447).

Report Type	Less Than HS	High School	Some College	Total
Under-Reporter	93 (40.3)	311 (26.7)	96 (9.1)	500 (20.4)
Matching-Reporter	40 (17.3)	328 (28.2)	326 (31.0)	694 (28.4)
Over-Reporter	98 (42.4)	526 (45.2)	629 (59.8)	1253 (51.2)
Total	231 (100)	1165 (100)	1051 (100)	2447 (100)

%'s in parentheses χ^2 = 172.18   (p < 0.001)

In order to examine the relationship between reporting accuracy and educational attainment, I reclassified the respondents' into three categories: under-reporters, matching

reporters, and over-reporters. Overall, 500 respondents (20.4%) under-reported their social class, 694 (28.4%) respondents' self-reports perfectly matched the social class index, and 1,253 (51.2%) over-reported their social class compared to the objective classification.

Table 4 demonstrates that under-reporting diminishes as level of education increases. Markedly, 93 respondents (40.3%) without a high school diploma, 311 respondents (26.7%) with a high school diploma, and 96 respondents (9.1%) that have attended college under-reported their social class. Table 4 also reveals that matching reports increase as the level of educational attainment increases. Forty respondents (17.3%) without a high school diploma, 328 respondents (28.2%) with a high school diploma, and 326 respondents (31.0%) that have attended college reported a social class that matched with the social class index. Furthermore, Table 4 shows that over-reporting also increases as the level of educational attainment increases, which conflicts with Bernstein et al. (2001). Particularly, 98 respondents (42.4%) without a high school diploma, 526 respondents (45.2%) with a high school diploma, and 629 respondents (59.8%) that have attended college over-reported their social class. The association between educational attainment and reporting accuracy is statistically significant ($\chi^2 =$ 172.18; $p < 0.01$), which supports Bellon et al. (2000). As educational attainment increases, under-reporting decreases, matching-reporting increases, and over-reporting increases.

Table 5 and Table 6 further illustrate the relationship between educational attainment and reporting accuracy within levels of race. Partial tables are shown for non-

White and White respondents. The effect of educational attainment on reporting

accuracy is significant for non-Whites (χ^2 = 53.37; p < 0.001) and Whites (χ^2 = 127.36;

p < 0.001). For non-Whites, as educational attainment increases, under-reporting

decreases, matching-reporting increases until the completion of high school and then

remains the same, and over-reporting fluctuates. As Table 5 shows, 34 (35.1%) non-

Whites with less than a high school diploma, 61 (26.4%) with a high school diploma, and

10 (5.1%) with some college education under-reported their social class. Furthermore, as

educational attainment increases for non-Whites, matching-reporting increases with the

completion of high school and then levels out between high school and attending college.

For example, 10 (10.3%) with less than a high school diploma, 58 (25.1%) with a high

school diploma, and 49 (25.1%) that have attended college self-reported a social class

that matched the index classification. Even more so, as educational attainment increases,

Table 5. Effect of Educational Attainment on Reporting Accuracy- Non-White
Respondents (N = 523).

Report Type	Less Than HS	High School	Some College	Total
Under-Reporter	34 (35.1)	61 (26.4)	10 (5.1)	105 (20.1)
Matching-Reporter	10 (10.3)	58 (25.1)	49 (25.1)	117 (22.4)
Over-Reporter	53 (54.6)	112 (48.5)	136 (69.7)	301 (57.6)
Total	97 (100)	231 (100)	195 (100)	523 (100)

%'s in parentheses χ^2 = 53.37 (p < 0.001)

Table 6. Effect of Educational Attainment on Reporting Accuracy-White Respondents
($N = 1924$)

Report Type	Less Than HS	High School	Some College	Total
Under-Reporter	59 (44.0)	250 (26.8)	86 (10.0)	395 (20.5)
Matching-Reporter	30 (22.4)	270 (28.9)	277 (32.4)	577 (30.0)
Over-Reporter	45 (33.6)	414 (44.3)	493 (57.6)	952 (49.5)
Total	134 (100)	934 (100)	856 (100)	1924 (100)

%'s in parentheses $\chi^2 = 127.36$ ($p < 0.001$)

the proportion of non-Whites that over-report fluctuates. For example, 53 (54.6%) with

less than a high school diploma, 112 (48.5%) with a high school diploma, and 136

(69.7%) that have attended college over-reported.

For Whites, as educational attainment increases, under-reporting decreases while

matching-reporting and over-reporting increase. Table 6 reveals that 59 (44.0%) with less

than a high school diploma, 250 (26.8%) with a high school diploma, and 86 (10.0%) that

have attended college under-reported their social class. Matching-reporting increases as

educational attainment increases as shown in Table 6. Furthermore, over-reporting

increases as educational attainment increases as 45 (33.6%) with less than a high school

diploma, 414 (44.3%) with a high school diploma, and 493 (57.6) that have attended

college over-reported.

The effect of educational attainment upon reporting accuracy for under-reporting

follows a similar pattern for non-Whites and Whites. As educational attainment

increases, under-reporting decreases; however, a larger proportion of White respondents

under-reported than non-White respondents at all levels of educational attainment. For example, 34 (35.1%) non-White respondents with less than a high school diploma under-reported compared to compared to 59 (44.0%) Whites with less than a high school diploma, 61 (26.4%) non-Whites with a high school diploma under-reported compared to 250 (26.8%) of Whites with a high school diploma, and 10 (5.1%) non-Whites that have attended college under-reported compared to 86 (10.0%) Whites of similar level of education.

The effect of educational attainment upon reporting accuracy for non-Whites and Whites follows a different pattern regarding matching-reporting. Matching-reporting increases as educational attainment increases for Whites, but in contrast, matching-reporting does not increase among respondents with a high school diploma and those that have attended college for non-Whites. Furthermore, at all levels of educational attainment, a greater percentage of White respondents reported a social class that matched the social class index than non-Whites. For example, 30 (22.4%) White respondents with less than a high school diploma reported a social class that matched the social class index compared to 10 (10.3%) of non-Whites with less than a high school diploma, 270 (28.9%) of Whites with a high school diploma reported a social class that matched the index classification compared to 58 (25.1%) of non-Whites with a high school diploma, and 277 (32.4%) of Whites that have attended college reported a matching social class compared to 40 (25.1% of non-Whites.

The effect of educational attainment upon reporting accuracy for non-Whites and Whites follows a different pattern regarding over-reporting. As educational attainment increases for Whites, over-reporting increases. In contrast, as educational attainment

increases for non-Whites, over-reporting fluctuates. For non-Whites, over-reporting decreases if the respondent has a high school diploma and has not attended college and it increases if they have attended college compared to those that have not attained a diploma and respondents that have attained a high school diploma. Furthermore, within all levels of educational attainment, a greater proportion of non-Whites over-report more than Whites. For example, 53 (54.6%) non-White respondents with less than a high school diploma over-reported compared to 45 (33.6%) Whites with less than a high school diploma. Similarly, 112 (48.5%) non-Whites with a high school diploma over-reported compared to 414 (44.3%) Whites with a high school diploma. Furthermore, 136 (69.7%) non-Whites that have attended college over-reported compared to 493 (57.6%) Whites that have attended college.

DISCUSSION

The findings of this study support the notion that reports of some personal information do not always match with objective methods of assessments. There are substantial departures that researchers must take into account in deciding which method of measurement best suits their research needs. A number of explanations can account for the discrepancies observed in this study. First, Goffman's (1959) theory of impression management can be used as one explanation for the level of match and mismatch. According to Goffman (1959), respondents engage in impression management when they utilize self-presentations to influence the perception of their image by highlighting the characteristics that maintain and support the image they want themselves and others to perceive. Thus, some respondents regulate and control information during the process of social interaction by under- and over-reporting their personal characteristics. Impression

management enables them to maintain their inner and social identities that are parallel to the perceptions they want to present to and impress upon themselves and others. Respondents accentuate certain parts of their identity and conceal others in order to meet socially desirable expectations (Bernstein et al. 2001). Both over-reporting and under-reporting may have occurred, because respondents experienced social pressure to produce a positive self-presentation in order to avoid the guilt and shame of disappointing themselves and others (Macdiarmid and Blundell 1998).

Impression management may also account for why very few respondents identified with the upper and lower classes. The pressure to conform to social norms and engage in a genuine performance is one reason that the majority of the sample self-identified themselves as belonging to the middle or working class (Gilbert 2011; Macdiarmid and Blundell 1998). This is not surprising; nor is it surprising that middle class and working class respondents reported a social class that matched more than those reporting themselves as upper and lower class. In US society, the social norm is to be in the middle of the class system and the majority of US citizens reside in the middle of the class system (Gilbert 2011). Subjective social class identification requires the respondent to self-report their perceived position within a social class that is part of a hierarchically stratified class system (Jackman and Jackman 1973). Thus, a possible explanation of the choices made by most respondents in the GSS is an attempt to avoid being seen as better off or worse off than the majority of people. Reporting as middle or working class provides a more acceptable image of themselves.

A second way to explain the discrepancy between the two measures of social class is to explore the possibility that many respondents did not attach the same level of rigor to the meanings entailed in the labels used to describe the social classes in the survey. In everyday speech it is not uncommon to use the term "working class" as a badge of honor. Thus, in a sample of only full-time workers used in this study, it may not be unusual for respondents to see themselves as working class even if they are not. It is not clear from the wording of the question on social class whether respondents were expected to have a rigorous or a popular understanding of 'social class' and the categories used to organize it. As suggested by Evans (1997) it is difficult to assess the validity of the responses made. Furthermore, other explanations exist, such as interviewer effect, methodological error, and psychological phenomena that may account for why misreports occur (Macdiarmid and Blundell 1998).

The Association between Educational Attainment and Reporting Accuracy

Regarding the association between educational attainment and reporting accuracy, this study found that the percentage of respondents under-reporting decreased as educational attainment increased while matching-reporting and over-reporting tended to increase with higher levels of educational attainment. Although under-reporting decreases and the proportion of respondents' self-reports match the social class index scores increases as educational attainment increases, over-reporting also increases, which conflicts with Aneshensel et al. 1987 and Bernstein et al. (2001). Respondents with higher educational attainment over-report more than respondents with less educational attainment, because they experience the pressure to conform to social norms that match their class interests, in order to demonstrate their satisfaction with social norms

(Macdiarmid and Blundell 1998). Respondents with high educational attainment levels are more likely than respondents with low educational attainment levels to conform to social norms, even if their reality diverges from social norms, because for highly educated people, not matching social norms is psychologically stressful; whereas respondents with less educational attainment feel less guilty about matching social norms and are less likely to over-report (Bernstein et al. 2001; MacDiarmid and Blundell 1998).

Association between Educational Attainment within Levels of Race and Reporting Accuracy

The reporting differences between non-White and White respondents within levels of educational attainment could be a result of "socioeconomic or other experiential differences that happen to covary with race" (Kuncel et al. 2005: 76). Non-Whites have a tendency to over-report information that reflects the social norm more than Whites, because identifying with a minority group is associated with increased social pressure to conform to mainstream society and social norms (Holt et al. 2006). Non-Whites with high educational attainment experience more social pressure to conform to social norms to reduce anxiety and guarantee a quality performance than non-Whites with low educational attainment and Whites (Holt et al. 2006).

LIMITATIONS OF THE STUDY

This study has a number of limitations. To begin with, routine analysis regarding whether a significant difference exists between subjective and objective measures of social class is rare. Therefore, the findings of this study should be considered preliminary. Further research is needed on this issue before pronouncements can be made

regarding when to use self-reports, indices, or a combination of instruments to measures social class.

Another limitation of this study regards the inclusion criteria for the social class index. Only respondents at least 40 years of age and working full time were considered for this study. A large proportion of the working age population and young persons that have not solidified their social class position was excluded. Because of this, a very small proportion of the sample self-reported as lower class. This however, did not affect the reliability of the social class index as a similar standardized alpha (0.7) was obtained using the whole sample.

Furthermore, Gilbert's (2011) class schema included six social class categories, whereas the GSS data only incorporated four social class categories. An arbitrary decision was made to collapse Gilbert's (2011) class categories to coincide with the categorical structure of the GSS.

SUMMARY AND CONCLUSION

This study examined the extent to which self-reports of social class converged or diverged from an objective measure of social class. Furthermore, the disparity between the two measures of social class and the pattern of mismatch was examined in relation to educational attainment and race. This study found a significant association between the two measures of social class, which supports the finding of Jackman and Jackman (1973) and the hypothesis that self-reported social class is significantly associated with measurement of social class by socioeconomic indicators. Except for those classified as upper class by the social class index, most respondents' self-reports tended to match or exceed their social class position. None of the upper class respondents reported that they

were lower class and only 6.9% of respondents classified objectively as lower class reported their social class as lower class. The positive association between the two measures results from the majority of respondents either agreeing with or ranking themselves higher than the social class index.

Furthermore, this study found that the divergence between the two measures was significantly associated with educational attainment for non-Whites and Whites. The hypothesis that differences between self-reported social class and classification by the social class index will diminish as the level of educational attainment increases was supported for under-reporting and matching reporting; however, it was rejected for over-reporting, which conflicts with the findings of Navarro et al. (2006). The hypothesis that the effect of education on the difference between self-reported social class and the social class index will follow a different pattern within levels of race was rejected for respondents with less than a high school diploma; however, the hypothesis was supported for respondents that had a high school diploma or attended college. In support of Bernstein et al. (2001), a larger proportion of non-Whites over-reported than Whites within all levels of educational attainment. In contrast to Perry et al. (2005), both non-Whites and Whites tended to over-report more than under-report or report a matching report within all levels of educational attainment, except for Whites with less than a high school diploma. In support of Aneshensel et al. (1987), a larger proportion of Whites tended to report a matching-report than non-Whites within all levels of educational attainment. The findings demonstrate the complexity of measuring social class exclusively and when controlling for multidimensional variables. Dynamic disparities exist between different measures of social class.

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