Wealth Inequality and Class Location

by

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(Under the direction of Mark Cooney)

Abstract

Despite a recent increase in the attention given to wealth inequality, no research has examined the role of class, as it is understood within the Marxist tradition, in structuring the distribution of wealth. The use of relational—rather than gradational—measures of class location reveal distinct processes of wealth accumulation. Specifically, analysis of financial (i.e., "liquid") wealth by class location indicates significant differences between capitalists, petty bourgeoisie, and workers regarding the accumulation of wealth.

Index words: Class, Inequality, Marx, Marxism, Net Worth, Socioeconomic Status, SES, Wealth

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Chapter 1

Introduction

Income is the *de facto* measure of well-being. Whether measured directly or as a component of such measures as SES, contemporary researchers have, by and large, come to define well-being in terms of income. Recent research, however, has emphasized the importance of financial wealth as a measure of well-being distinct from that of income. Wealth inequality does not simply dwarf income inequality, as has long been recognized; rather, investigation of the wealth distribution reveals unique patterns of economic inequality that are not captured by investigation of the income distribution alone.

Notably absent from this research are studies of wealth inequality which study the influence of class position as it is understood within the Marxist tradition. Fundamentally an investigation of the creation, distribution, and accumulation of wealth, Marx's analysis of capitalist class relations provides an elegant framework from which to explore the contours and dynamics of the wealth distribution. The present analysis, therefore, examines the distribution of wealth across class locations in order to understand the ways in which class relations organize the structure of wealth inequality.

1.1 Wealth and Income

Although intertwined, the dynamics of wealth and income are conceptually distinct. Formally, wealth is defined as the net dollar value of the stock of assets less liabilities

held by an individual or household at a single point in time. Income refers to the flow of dollars over a period of time, generally one year. The distinction between wealth and income can be subtle. Certain forms of income do derive from wealth, such as interest from savings, dividends from investments, and rent from real estate. Such forms of wealth are income-producing, but they do not constitute income in and of themselves. Income may be invested and thereby transformed into wealth; again, however, this does not serve to equate wealth and income.

The distinction between wealth and income is best clarified through their manner of divestment. Generally, income tends to the needs of daily life. In providing for the various day-to-day necessities, income is continually spent down. Aside from that which may be diverted into savings or investments, minimal material gain is realized from income expenditure. Income is primarily a means of subsistence.

Wealth expenditure, on the other hand, tends to prevent financial hardship and create economic opportunity. Acute and irregular, the divestment of wealth is generally reserved for specific circumstances. Chief among these is interrupted income flow due to retirement, job loss, illness, or death. Under such circumstances, savings and investments act as an economic safety net. A second use of wealth is the creation of economic opportunity. Wealth reserves are often relied upon to finance economic ventures such as financial investment, business startup, and education. In such cases, wealth expenditure is an investment used to finance opportunities expected to provide a positive return.

This distinction between wealth and income is not trivial. Income provides lifestyle comfort; greater income provides a better livelihood but it does not produce social mobility. Such opportunities are infrequent and quite costly. Even relatively high income can provide only limited opportunity. In general, opportunities for social advancement may only be financed through the divestment of wealth reserves.

1.2 Forms of Wealth

Wealth may be measured in a number of ways depending upon which assets are included in the measure (e.g. marketable assets, durable goods, returns to future pension/Social Security benefits) (Wolff, 1995, pages 75–6). The two most popular wealth measures, however, are *net worth* and *financial wealth*.

Net worth is the most familiar measure of wealth. Representing the entire stock of financial resources that one controls at a particular point in time, net worth provides a summary value of all that a person owns and is calculated as total assets (value of owner-occupied housing and other property, stocks and bonds, savings, etc.) minus total debt (mortgage debt, consumer debt, other debt). Financial wealth is a more "liquid" concept of wealth than net worth. Excluding equity in the home, financial wealth better represents the resources available for immediate consumption.

The conceptual distinction between these two measures is that net worth is a measure of socioeconomic status while financial wealth better reflects available economic resources. As discussed in Section 1.1, wealth is generally used to create opportunity or supplement lost income. But neither of these cases typically entails the liquidation of one's home. In general, when examining available economic resources, researchers exclude home equity from the equation.

In practice, use of the financial wealth measure serves to magnify the inequality gap between the wealthy and the non-wealthy. For all but the wealthiest members of the population, the home is the single most valuable asset that one owns (Wolff, 1995, pages 59–64). Eliminating owner-occupied housing as a source of wealth, therefore, "hurts" the non-wealthy more than the wealthy (who have a greater proportion of their wealth in the form of stocks, bonds, trusts, business equity, and other property). Such a measure, then, serves to underscore the precarious financial position in which many people find themselves (Oliver and Shapiro, 1995, pages 58–60). Even when a

person's net worth is relatively high, if most of that wealth is tied up in the home, they may not be financially prepared to deal with sudden economic hardships.

Because these measures tap into slightly different concepts—socioeconomic status versus economic security and opportunity—many researchers prefer to estimate their equations for both net worth and finacial wealth (c.f. Keister, 2000; Wolff, 1995; Oliver and Shapiro, 1995). The dataset used here, however, only asks about financial wealth. Consquently, the present analysis only discusses financial wealth.

Chapter 2

Contemporary Wealth Research

2.1 Empirical Studies of Wealth

Study of the wealth distribution is, naturally, bracketed by the availability of data. Although U.S. estate data is available as far back as the late 19th century, national estimates of wealth did not begin until the Survey of Financial Characteristics of Consumers (SFCC), a one time survey conducted by the Federal Reserve Board in 1962. In 1983, the SFCC was transformed into the Survey of Consumer Finances (SCF), a triennial survey of U.S. family wealth. To date, the SCF is the only national survey designed specifically to investigate wealth related issues. The SCF utilizes a dual-frame sample design that includes both an area probability sample and, to better represent the upper end of the wealth distribution, an oversampling of high income households. Consequently, SCF estimates regarding the wealth distribution are generally regarded as more representative than those produced by other surveys (Juster, 1991).

Other surveys widely used for the investigation of wealth include the Survey of Income and Program Participation (SIPP), the Panel Study of Income Dynamics (PSID), the National Longitudinal Surveys (NLS), and the Retirement History Survey (RHS). Both the SIPP and the PSID are designed as representative surveys of U.S. individuals, periodically including wealth modules detailing asset and liability composition. The NLS and RHS typically do not provide as much detail as

the SCF or the wealth modules of the SIPP and PSID; nevertheless, they do provide at least a cursory examination of portfolio composition.

Also of note is the wealth module of the CORSIM dynamic microsimulation model[1] of U.S. individuals and families (Keister, 2000). Developed in response to the lack of longitudinal data on wealth, the CORSIM wealth module permits modeling of the processes of wealth accumulation and analysis of the relationship between microlevel behavior and aggregate wealth outcomes. Wealth estimates deriving from the simulation have been found to be consistent with those deriving from the SCF (Keister, 2000). In light of the deficiency of reliable wealth data, the CORSIM wealth module plays a vital role as an additional source of wealth data. Perhaps more important, however, is that this dataset enables the user to manipulate the model parameters and thereby explore otherwise untestable hypotheses.

2.2 Explanations of Wealth Inequality

Largely dominated by the economic and sociological disciplines, a review of contemporary wealth research reveals two distinct avenues of inquiry. At the risk of oversimplification, economists tend to be interested in those who have wealth while sociologists tend to be interested in those who do not. More precisely, the economic discipline tends to emphasize the study of economic processes such as saving and accumulation. The sociological discipline, on the other hand, tends to emphasize the study of the barriers and cleavages of the social structure. While economists have concentrated on modeling savings behavior, sociologists have attended to describing the picture of wealth inequality.

[1]The CORnell SIMulation model is a longitudinal, microanalytic computer simulation model of the demographic and economic evolution of the United States population from 1960 up through (for the longest simulations) 2090. Further details regarding the CORSIM are available at http://www.strategicforecasting.com. Pages 30–51 of Keister (2000) detail development of the wealth module.

2.2.1 Micro-Level Explanations

Economists define wealth as a function of saving. More precisely, saving is measured as "the difference in wealth between two time periods" (Kennickell, 1995). Such a measure rests upon the proposition that all wealth originates as income whether in the form of earnings, gifts, or dividends deriving from held assets. The only manner by which wealth may accumulate, then, is for income to be set aside (i.e., saved) even if "setting aside" amounts to nothing more than not divesting earned interest.

Such a measure emphasizes that discussions of wealth inequality are fundamentally discussions of wealth accumulation. Defining wealth as a function of saving, however, describes the process of wealth accumulation without saying anything regarding the conditions under which saving occurs. Consequently, contemporary economic analysis focuses on the factors affecting saving.

Lifecycle Model

The most widely accepted explanation of saving variation is the lifecycle model which posits that a curvilinear relationship exists between age and saving. Retirement acts as a tipping point: saving tends to increase until retirement at which time it drops significantly as individuals begin to draw upon their wealth reserves in order to supplement lost income. Consequently, wealth tends to follow a regular pattern across the lifecourse; accumulating until retirement and falling thereafter (Modigliani, 1988).

The rate of post-retirement divestment is the subject of much discussion. The classical formulation of the lifecycle hypothesis posits that wealth is typically exhausted by the end of the lifecourse as individuals attempt to maintain their pre-retirement lifestyle (Ando and Modigliani, 1963). A revised argument suggests that expenditures typically decline after retirement such that while the elderly do

dissave, they do so at a rate much less severe than that predicted by the classical formulation (Keister, 2000).

For the present analysis, however, the debate regarding the rate of post-retirement dissaving is of little consequence. As discussed in Section 4.1, Footnote 2, the subset used in the present analysis is restricted to those respondents currently in the labor force; that is, those respondents who are currently working or are actively seeking employment. Since retired respondents are not included in the subset, the relationship between age and wealth is modeled as linear rather than curvilinear.

Socioeconomic Status

Income The relationship between income and wealth is straightforward: as income rises, so does wealth. One reason for this is that increased income produces additional opportunities for saving and investment. A second reason is that wealth, itself, produces income. The relationship between income and wealth, therefore, is both reciprocal and exponential: an increase of one begets an increase of the other.

Observing that extreme wealth may enable individuals to limit or even forego working, Keister (2000) finds a substantial drop in the association between income and wealth when asset income (income produced by wealth) is controlled. This suggests that it is important to distinguish between asset income and earnings when evaluating the relationship between income and wealth.

Education Although a number of researchers have argued the importance of education as a determinant of wealth accumulation, empirical research provides only limited support for such a conclusion. Wealth does indeed vary by educational attainment and a handful of researchers have found education to be a significant predictor

of wealth (Keister, 2000; Oliver and Shapiro, 1995). In general, however, the relationship between education and wealth largely disappears once other variables are controlled (c.f. Conley, 1999; Kennickell and Starr-McCluer, 1997; Oliver and Shapiro, 1995). This suggests that any effect of educational attainment on wealth accumulation is a function of the effect of education on other determinants of wealth, such as income. It may also be the case that the effect of education on wealth accumulation varies by class location. For example, educational attainment may be more important for workers than for capitalists, who derive the majority of their wealth from their ownership of capital.

Family Structure

Marital Status and Gender The effect of marriage on wealth accumulation is clear: married couples report significantly higher levels of wealth than do single individuals. What is unclear are the reasons for this difference. Keister (2000) suggests that marriage produces an "economy of scale" under which multiple incomes contribute to the same savings reserve. Yet Oliver and Shapiro (1995, page 78) report only a slight wealth advantage for dual-income married couples in comparison to their single-income married counterparts: "A second income apparently supplies much-needed income but generates little wealth." It may be that the benefits of marriage do not reside in the marriage itself but in factors related to marriage such as tax breaks, lifestyle preferences, and economic and behavioral patterns.

Further complicating the picture is that there is an interaction between gender and marital status. Studies which control for sex observe a slight mean wealth advantage for women (Oliver and Shapiro, 1995; Zagorsky, 1999). Such a finding is surprising considering that women typically have lower earnings than men. Observing that the gender gap disappears when measuring median wealth rather than median wealth and controlling for marital status, Zagorsky (1999, page 151) recently solved

this riddle: "Median calculations are picking up the large number of unmarried, relatively poor females, which drag the median downward. The mean calculations are picking up the small number of relatively rich married females, which pulls the mean upward."

Zagorsky, however, fails to take the next step and does not recognize that gender and marital status should not be included as separate variables in an analysis of wealth; instead, only the interaction between gender and marital status should be included. Wealth is best understood as a household—or family—level variable. A married couple shares their assets: they purchase a home together, they share a joint savings account, assets get redistributed when they get divorced. Within the confines of marriage then, it does not make sense to talk about "female wealth" and "male wealth;" rather, there is only "family wealth."

On the other hand, the issue of gender is important when there is only a single head of household (e.g., a person living alone or a single parent). The importance of gender as a determinant of wealth accumulation is mediated by marital status. In the present analysis, therefore, gender and marital status are included as an interaction; specifically, this interaction is modeled as a series of dummy variables: single male, single female, and married.[2]

Presence of Children The presence of children has an unambiguously deleterious effect on wealth holdings. Caring for children absorbs income that might otherwise

[2]One might ask why the interaction between gender and marital status is not modeled simply as the product of gender and marital status. Modeling this interaction as the product of gender and marital status would create four categories: single male, single female, married male, and married female. The argument presented here holds that gender is not an important determinant of wealth among married couples because married couples share their wealth (another way of stating it would be that within marriage, individuals have access to their partners' assets). Therefore, within marriage, gender is irrelevant; all that matters is that the respondent is married. Consequently, the interaction is modeled as a series of dummy variables as discussed above.

be diverted into savings. Moreover, the presence of children increases the likelihood that one may need to draw upon wealth reserves in order to cover, for example, the costs of a child's hospitalization or education. Recognition of this possibility may lead parents to alter their saving patterns as to permit easy access to wealth reserves. Rather than concentrating their wealth in long-term, high-interest savings vehicles, parents may place significant portions of their wealth in low-return cash accounts which are more flexible, exhibit greater stability, and incur reduced early withdrawal penalties.

Empirical Investigations of the Saving Process

Empirical investigation confirms that patterns of saving tend to conform to the life-cycle model (Jappelli, 1999; Kennickell, 1995). Recent research, however, reveals a more complicated picture and a micro-level model of the saving process remains elusive. Using 1983 and 1986 SCF data, Avery and Kennickell (1991, page 432) concluded, "Saving appears to be a very noisy variable. Using a variety of models, we were unable to explain more than about 7 percent of the variation in the level of saving." Kennickell and Starr-McCluer (1997) achieved comparable results using the 1983–1989 SCF data.

2.2.2 Macro-Level Explanations

In contrast to economists who tend to emphasize individual patterns of saving, sociologists tend to locate the explanation of wealth accumulation at the aggregate level and focus on inequality rather than saving behavior. Wealth inequality is understood to be a result of social, political, and economic inequalities that shape saving patterns. To the extent that a particular group's opportunities for saving are constrained, that group will have fewer opportunities to accumulate wealth than do their advantaged counterparts. Dominated by studies of racial wealth inequality,

sociological studies of wealth, then, seek to explicate the social context of wealth accumulation and distribution.

Oliver and Shapiro (1995, pages 4–5), for example, argue that current black wealth disadvantage is the result of a history of overt and covert racist state policy constraining the economic opportunity of black Americans. Decomposing the results of their regression analysis in order to eliminate the effect of socioeconomic differences, over 70 percent of the variance between white and black wealth remained unexplained. Such results are consistent with Blau and Graham (1990) who found that even with the elimination of all socioeconomic disadvantage, three-quarters of racial wealth differences would remain.

Other research, however, suggests that contemporary racial wealth differences are, in fact, largely a function of socioeconomic differences. Conley (1999, page 152) concludes his text *Being Black, Living in the Red* in a manner strikingly reminiscent of Wilson's *The Declining Significance of Race*:

> Although race becomes insignificant in predicting a number of important outcomes for young adults when asset levels are included in causal models, wealth itself in nevertheless distributed unequally by race. Thus, one may conclude that the locus of racial inequality no longer lies primarily in the labor market but rather in class and property relations that, in turn, affect other outcomes.

Rumberger's (1983) analysis of the relationship between family background and wealth, however, suggests that the relationship between wealth and its predictors may be more complicated than either Oliver and Shapiro or Conley suggest. Among whites, parental wealth, self-employment, home ownership, work experience, and region were all found to significantly affect wealth holdings. Only home ownership

was significant for blacks. Rumberger (1983, page 765) suggests that the relationship between wealth and its predictors may be a function of social status:

> For blacks, parental wealth does not exert any direct influence on wealth after controlling for its effects on schooling and earnings. This does not necessarily mean that family background, and particularly parental wealth, is not as strong an influence on the economic status for blacks as it is for whites. Average wealth among blacks, both parents and sons, is less than half that of whites. The strong effect of parental wealth on son's wealth which was observed for whites may indicate that parents have to be above a certain level of wealth before they can affect the financial position of their children.

Chapter 3

Toward a Class Analysis of Wealth

3.1 Achievement and Marxist Models of Wealth Accumulation

Notably absent from contemporary studies of wealth are investigations of the relationship between class relations and wealth inequality. To date, no empirical studies of wealth inequality have examined class as a relational construct, opting instead to rely upon such gradational measures as SES.

Researchers who operationalize class as a gradational measure invoke a micro-causation argument: class is an individual characteristic, similar to that of age or marital status. However, class may also be viewed as a structural construct, one which underlies social relations and shapes the distribution of wealth. Operationalizing class as a relational measure, the present project embraces a structural analysis of wealth inequality.

Like those economic studies which define wealth as a function of saving, contemporary sociological studies of wealth inequality have adopted an achievement model which views wealth accumulation as a microlevel process. Unlike economists, however, sociologists have emphasized the influence of exogenous factors such as inheritance, market fluctuations, and history in constraining the process of wealth accumulation. Oliver and Shapiro (1995, page 175), for example, view the deprivation of Black America as a result of the unique historical circumstances faced by African Americans:

> The inheritance of accumulated disadvantages over generations has, in many ways, shortchanged African Americans of the rather dramatic mobility gains they have achieved. While blacks have made stunning educational strides, entered middle-class occupations at an impressive rate, and moved into political positions in numbers unheard of a quarter of a century ago, they have been unable to surmount the historical obstacles that inhibit their accumulation of wealth. Still today, they bear the brunt of the sedimentation of racial inequality.

Such studies emphasize a model whereby wealth accumulation is viewed as a result of individual achievement. Although the disadvantaged may have less opportunity to accumulate wealth, the process of accumulation is the same for all. In contrast, a structural model of wealth inequality emphasizes how social relations shape the process of wealth distribution. The advantage of one group is seen to be causally linked to the disadvantage of another.

Within the Marxist tradition, analysis of the class structure explains social inequality. Wealth accumulation is not the result of individual achievement; rather, it is the product of specific social relations. More specifically, Marxists argue that the process of exploitation links one class to another: capitalists accumulate wealth by appropriating the fruits of proletarian labor.

This distinction between achievement and Marxist models of wealth accumulation forms the basis for any subsequent evaluation of wealth inequality. Emphasizing individual saving behavior, achievement models view wealth inequality as a consequence of rational action. Individuals choose how much to save based upon their preferences, resources, and available information. Barriers to equal opportunity, such as inheritance and discrimination, are considered deviations from this model representing market disequilibria to be restrained.

In contrast, Marxist models of wealth accumulation view class location as the primary determinant of saving behavior. An inherent feature of the social structure, wealth inequality is a product of capitalist class relations which, through exploitation and other mechanisms, promote the concentration of wealth. For Marxists, analysis of the class structure—not individual behavior—explains wealth inequality.

3.2 Empirical Research Strategy

In addition to the theoretical differences, the distinction between achievement and Marxist models of wealth accumulation has significant implications for empirical research strategies. Empirical evaluation of achievement models emphasizes analysis of the influences and constraints on individual saving behavior. Marxist models, in contrast, emphasize how class relations structure the process of wealth accumulation. Discussing income inequality, Wright (1994, page 29) describes the distinction:

> In [an achievement model], a full account of the individual (non-relational) determinants of individual income is sufficient to explain the overall distribution of income. This suggests that the central empirical task is first to assemble an inventory of all of the individual attributes that influence the income of individuals and, second, to evaluate their relative contributions to explaining variance across individuals in income attainment. . . . this would mean examining the relative influence of family background, personalities, education and other individual attributes in accounting for their different performances. The sum of such explanations of autonomously determined individual outcomes would constitute the basic explanation of the aggregate income distribution.

> It follows from this that the heart of statistical studies of income inequality within an achievement perspective would be multivariate micro-analyses of variations in income across individuals. . . .
>
> In [Marxist] models of income distribution, the central empirical problem is to investigate the relationship between the variability in the form and degree of exploitation and income inequality. This implies a variety of specific research tasks, including such things as studying the relationship between the overall distribution of exploitation-generating assets in a society and its overall distribution of income, the different processes of income determination within different relationally defined class positions, and the effects of various forms of collective struggle which potentially can counteract (or intensify) the effects of exploitation-mechanisms on income inequalities.

Keister's recent work with the wealth module of the CORSIM exemplifies the former approach. Critiquing existing wealth inequality research, Keister (2000, page 15) argues that a proper model of wealth accumulation must incorporate both individual behavior patterns and macroeconomic processes if it is to accurately describe the wealth distribution. A lack of empirical data, however, currently precludes such an analysis. Keister, therefore, constructs a simulation model which permits her to estimate historical trends in wealth inequality. Synthesizing data from a variety of sources—including household survey data, estate tax data, and aggregate household wealth data—Keister (2000, page 31) is "able to generate life histories for simulated families, including such behaviors and processes as birth, marriage, divorce, widowhood, remarriage, education, earnings, transfer payments, and wealth ownership." Although constrained by historical trends and patterns, wealth accumulation is fundamentally a function of an individual's life course.

Angle (1986, page 300), on the other hand, discounts the significance of individual differences in determining wealth accumulation:

> What determines success in encounters in which surplus wealth changes hands? Personal characteristics surely. Some people are more eager for wealth than others; some are bright, others not; some are genial, others boorish; some able-bodied, others lame; in a word, some are lucky, others not. From the point of view of a system of transfers of surplus wealth, individual characteristics are just noise, a lottery, an irrelevant stochastic process. If the outcome of the transfer is not a chance thing, then ability to influence the outcome can be modeled as a chance event.

In contrast, Angle emphasizes the importance of class relations in shaping wealth inequality. Recognizing the tendency of wealth to flow into the hands of those who are already wealthy, Angle defines the *Surplus Theory of Social Stratification*. Consisting of two definitions and four propositions, the Surplus Theory explains wealth accumulation as a function social relations (Angle, 1986):

Definition 1 *Subsistence is wealth necessary to keep producers alive and cover the long-term costs of production, including investments, which include keeping the families of producers alive.*

Definition 2 *Surplus is the difference between subsistence and total production of wealth; societal net product.*

Proposition 1 *Where people are able to produce a surplus, some of the surplus will be fugitive and leave the possession of the people who produced it.*

Proposition 2 *Wealth confers on those who possess it the ability to extract wealth from others. So netting out each person's ability to do this in a general competition for surplus wealth, the rich tend to take surplus away from the poor.*

Proposition 3 *As surplus wealth is transferred away from the person who produced it, less of what surplus is left is available for transfer.*

Proposition 4 *A smaller proportion of surplus wealth is extracted from producers of wealth in industrial societies than in societies with more primitive technologies.*

Proposition 2 explains the process of wealth accumulation: "The proposition asserts that wealth itself confers on its possessor some ability to take wealth from others. In a general competition for wealth, a richer person encountering a poorer person would have an advantage over the poorer person and be able to take surplus wealth from the poorer person" (Angle, 1986, pages 299–300). Marxists refer to this proposition as the theory of surplus value. As capital, wealth confers upon its possessor the ability to employ others and appropriate part of the produced surplus. Wealth accumulation and distribution are, from this perspective, structural processes explained by analysis of class relations. This is not to say that wealth inequality can be reduced to class inequality; rather, that class relations play a decisive role in shaping the wealth distribution. Specifically of interest are the ways in which class position shapes the relationship between wealth and its predictors.

Chapter 4

Methodology

4.1 Data

Data for the analysis was drawn from the *Multi-City Study of Urban Inequality* (MCSUI), a multi-stage stratified, clustered area-probability sampling of adult residents of the metropolitan areas of Atlanta, Boston, Detroit, and Los Angeles. Surveying a wide range of issues relating to contemporary urban inequality, the MCSUI is the only survey of which the author is aware that includes measures of asset and debt holdings as well as those measures necessary to construct a relational operationalization of the capitalist class structure.

Conducted between 1992 and 1994, the survey of 8,916 respondents oversamples low income and ethnic minority households.[1] Due to missing items on the Detroit implementation of the questionnaire, Detroit was dropped from the analysis reducing the sample to 7,373 respondents. Analysis was restricted to a subsample of 1,027 white, non-Hispanic respondents currently in the labor force[2], for whom class location and wealth data were available. Missing values and outliers reduced the sample

[1] In order to obtain a large sample of low-income and ethnic minority households, the MCSUI sample design included clusters of housing units taken disproportionately from areas (i.e., strata) with concentrated ethnic minority and low-income populations. Complete details of the MCSUI sample design may be found in Bobo, et. al. (2000, Appendix F).

[2] Ideally, retired respondents would be included in the data subset in accordance with the lifecycle model's proposition of post-retirement wealth divestment. Under such circumstances, the relationship between age and wealth would be modeled as curvilinear. The Boston, Detroit, and L.A. implementations of the questionnaire, however, did not ask retired respondents the majority of items related to labor force participation, including those measures necessary for the construction of the class location variables. Consequently,

Table 4.1: Number of Respondents by Stratum

	Number of Respondents	
Stratum	Full Sample	Subset[1]
Atlanta		
Black Non-Poverty	330	6
Black Poverty	444	3
White Non-Poverty	554	172
White Poverty	200	45
Boston		
Black	518	19
Hispanic	833	62
White Low Income	185	54
White High Income	234	121
Mixed	50	9
Los Angeles		
Japanese Low Poverty	229	16
Korean Low Poverty	162	11
Korean High Poverty	261	0
Chinese Low Poverty	626	56
Chinese High Poverty	134	0
Black Low Poverty	348	11
Black Medium Poverty	350	2
Black High Poverty	200	2
Hispanic Low Poverty	99	9
Hispanic Medium Poverty	242	2
Hispanic High Poverty	318	2
Asian Low Poverty	453	192
Asian Medium Poverty	76	22
Mixed Low Poverty	203	33
Mixed Medium Poverty	206	22
Mixed High Poverty	118	3

[1]Strata with less than 10 respondents dropped from analysis

to 874 respondents. Finally, strata with fewer than 10 respondents remaining were dropped, further reducing the sample to 836 respondents.

4.2 Model

A recursive model is used to investigate the relationship between wealth and class location:

$$\begin{aligned} Wealth = a &+ b_1 Age + b_2 Earnings + b_3 Home\ Ownership \\ &+ b_4 Education + b_5 Occupational\ Prestige + b_6 Children \\ &+ b_7 Single\ Male + b_8 Single\ Female + \mu \end{aligned} \tag{4.1}$$

Incorporating measures of demographic characteristics, socioeconomic status, and family structure, Equation 4.1 implements a micro-level, achievement model of wealth accumulation largely comparable to those employed by previous researchers. Evaluation of Equation 4.1 by class location, then, permits investigation of how the class structure shapes the process of wealth accumulation.

One distinction of note is the addition of occupational prestige, a measure not generally included in wealth accumulation models. There is no reason to expect that, in and of itself, the prestige of an individual's occupation would affect their accumulation of wealth. Rather, as an indicator of socioeconomic status, controlling for occupational prestige is an attempt to control for social lifestyle. It is likely the case that certain lifestyles are associated with particular patterns of saving, investment, and consumption. As the present analysis explores the relationship between class location and wealth inequality, controlling for social lifestyle is particularly important. Including occupational prestige in the model serves to increase confidence that any observed effects of class location on wealth accumulation are, in fact, a function of asset-ownership and not a reflection of associated lifestyle differences.

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retired individuals were omitted from the subset and the relationship between age and wealth was modeled as linear.

Also notable is that the interaction between marital status and gender (see Section 2.2.1) is modeled as a series of dummy variables: *single male*, *single female*, and *married*. *Married* is the omitted category.

4.2.1 Limitations of the Model

Typically, the relationship between age and wealth is modeled as nonlinear in order to accommodate the life-cycle hypothesis. For the present analysis, however, the data set is restricted to labor force participants. Because retired individuals are excluded from the analysis, a linear relationship is assumed to exist between age and wealth. One limitation of the present model, therefore, is that it is incapable of examining the dissaving patterns of the elderly, a key proposition of the life-cycle hypothesis.

A second limitation is that the model does not include a measure of asset income. As discussed in Section 2.2.1, research suggests that a proper analysis of wealth should include measures of both earnings and asset income. The MCSUI, however, neither inquires into asset ownership nor provides a means for determining asset income.

A final limitation of the model is that it confounds age and cohort effects. As the analysis makes use of cross-sectional data, it is impossible to distinguish between life-cycle effects and generational differences in productivity, preferences, and expectations (Jappelli, 1999). Use of longitudinal data is the preferred resolution to this problem. Alternate solutions include the use of panel data to directly measure cohort effects, the use of out-of-sample information to impute cohort effects, and the use of repeated cross-sectional surveys to estimate cohort effects. Each of these approaches, however, imposes additional constraints upon the researcher. The use of panel data and repeated cross-sectional surveys, for example, require the availability of said data. On the other hand, the use of out-of-sample information assumes that the derived cohort effects are representative of the population under study. When these

requirements cannot be met, as in the present case, one must simply take care not to overstate the significance of age as a determinant of wealth since it reflects both life-cycle and cohort effects.

4.3 Data Analysis

Analysis was conducted using linear regression in WesVar 4.01. Because the MCSUI employs a complex sample design (i.e., respondents have a non-equal probability of selection), standard statistical techniques which assume simple random sampling (SRS) will produce biased results. The application of sample weights corrects for the oversampling procedure by returning observations to their proper proportions in the population. To this end, the MCSUI includes an expansion person weight which incorporates post-stratification and non-response corrections. Since use of expansion weights (which are aligned to population size) can cause problems with the calculation of sample statistics, the expansion weight was converted to a relative weight (aligned to the sample size).

The departure from an SRS design can also wreak havoc with calculation of the variance. Jackknife Repeated Replication (JRR) was, therefore, used for variance estimation. The general strategy underlying repeated replication is to draw number of independent subsamples from the original single sample; in other words, to subsample the sample. The variance among these subsamples is used to compute the overall sampling variance of the estimate.

A number of methods of repeated replication are available, including Balanced Repeated Replication. Jackknifing was used because it is the only method suitable for the sample design employed by the MCSUI. Specifically, the JKn method provided by WesVar was used because it handles survey designs where a varying number of sampling units have been selected per stratum. Another procedure for proper

variance estimation is the Taylor Series method; however, it is not provided by WesVar.

4.4 Variables

4.4.1 Wealth

Wealth is operationalized as *financial wealth*, a measure of a family's assets less any debt. The MCSUI defines assets as deposits in the bank, savings accounts, savings bonds, certificates of deposit or stocks and bonds, individual retirement accounts and the like, but does not include equity in the home. Debt includes money owed for items other than the home, including credit card debt, personal loans, and automobiles.

As discussed in Section 1.2, the exclusion of owner-occupied housing distinguishes the present measure from the more common measure of net worth. As previously noted, the accumulation of wealth serves to create opportunity and defend against hardship. Neither case, however, typically results in the liquidation of one's home. That is to say, it is unlikely that one would sell one's home as a means by which to finance a child's education, start a business, or supplement a deficient income. As this commodity is generally "off-limits," researchers tend to exclude it from a measure which is designed to assess economic resources. Net worth, on the other hand, more properly measures social status. This distinction is crucial since, for most families, home equity serves as the primary source of wealth. Studies employing the net worth measure may, therefore, overestimate a respondent's degree of financial security and opportunity; indeed, Oliver and Shapiro (1995) argue that studies which point to increased black home ownership as an indicator of decreasing inequality fail to recognize that home ownership does not directly translate into increased opportunity. The operationalization of wealth as financial wealth, then, serves as a restrictive measure of economic resources.

As noted above, research on wealth is limited. Including only two relevant measures—total familial assets and total familial debt—the MCSUI, itself, is not particularly sensitive to the subject. But the restricted number of measures is not particularly problematic. Studies of wealth often measure a variety of assets and debts in an attempt to explain wealth inequality as a result of differential portfolio composition. Such an approach, however, is not necessary. Wealth inequality may be described as a structural—rather than individual—phenomenon. For the present analysis, a single measure of wealth is sufficient.

A detailed evaluation of portfolio composition, however, would provide a more accurate measure of wealth. Because individuals are not sensitized to the issues surrounding wealth, their assessment of total familial wealth—unlike that of individual earnings—cannot be considered wholly reliable. The MCSUI addresses this liability by developing categorical, rather than continuous, measures of assets and debt. Rather than inquiring as to absolute asset and debt amounts, interviewers presented respondents with series of asset and debt ranges. Such an approach serves to increase data reliability at the expense of information detail. Although a continuous measure is certainly desirable, in the absence of a detailed evaluation of asset composition, the increased reliability of the categorical measures is preferred. Consequently, analysis is conducted on range midpoints. As a quantitative discrete variable consisting of sixty ordered values, it is reasonable to assume continuousness and employ the measure as a dependent variable (Berry, 1993; Achen, 1982; Fox, 1991). Collapsing a linear variable into a categorical measure in this manner, however, serves to inflate standard errors making statistical significance more difficult to achieve (Achen, 1982). Consequently, significance is measured at the 0.10 level rather than the more traditional 0.05.

4.4.2 Social Class

Operationalization of class location is based upon Wright (1979, 1985, 1997) which defines an individual's class location as a function of occupational characteristics; namely, their ownership of capital, their level of authority in the organizational structure, and their possession of scarce skills.

Defining twelve distinct class locations, a limitation of Wright's model is that multivariate analysis requires a relatively large sample size in order to ensure an adequate number of respondents per class location. One solution to this problem is to employ a modified class map. In *Class Counts*, for example, Wright (1997, page 24), combines class locations in order to define a six-celled class typology.

The present analysis adopts a slightly different approach. Rather than deploying a complex typology of multiple, mutually exclusive class locations, just the basic Marxist classes are defined: capitalist, petty bourgeois, and worker. Workers are further delineated as middle class—those possessing authority and/or skills—or proletariat. Table 4.2 describes the operationalization of class location.[3]

While a departure from the original model, this implementation is theoretically consistent with Wright's conception of the capitalist class structure as delineated

[3]One limitation of this approach is that it introduces some ambiguity into the class location definitions. An advantage of Wright's 12-celled class typology is that the intermediate categories (supervisors, skilled, and small employers) serve to insure the conceptual "purity" of the extreme categories. That is to say, including supervisors, skilled, and small employers allows one to be relatively confident that workers really are workers and that managers really are managers; that the non-skilled really are non-skilled and that the experts really are experts; that the petty bourgeoisie really are petty bourgeoisie and that capitalists really are capitalists. By eliminating these intermediate categories from the present operationalization, the only class categories which remain "pure" are the proletariat—employees who posses neither scare skills nor authority—and the petty bourgeoisie—the self-employed who do not hire others. The other class categories—the middle class and capitalists—are slightly more ambiguous since they mix respondents who are nominally members of these class categories (e.g., small employers, who employ less than 10 individuals) with respondents are unambiguously members of that class category (e.g., capitalists, who employ 10 or more individuals).

Table 4.2: Operationalization of Class Location Measures

Class Location	Operationalization
Capitalist	Self-employed with one or more employees
Petty Bourgeois	Self-employed; employs nobody else
Worker	Not self-employed
Middle Class	Possesses authority and/or expertise (see below)
Manager	Supervises others
Expert	Possesses expertise as defined in Table A.1, page 51
Proletariat	Does not possess authority or expertise

by possession of capital, authority, and expertise. Indeed, measures are identical to Wright's operationalization. Although the nuanced picture of the middle class provided by Wright's model is lost, it is exchanged for a simpler typology permitting the increased number of respondents per class location that is required for complex multivariate analysis.

Capital

The criteria for determining capital ownership are relatively uncomplicated and the MCSUI contains measures comparable to those that Wright employs. The only difference of note is that the present analysis relies upon a more restricted definition of petty bourgeoisie than does the Wright. Conceptually, the petty bourgeoisie should be restricted to the self-employed who have no paid employees; due to an ambiguity in Wright's questionnaire design, it is impossible to distinguish between those who employ one worker and those who count themselves as an employee (Wright, 1985, page 150). Wright therefore operationalizes the petty bourgeoisie as employing no more than one worker. The MCSUI explicitly distinguishes between these cases;

therefore the present analysis relies upon the more appropriate, restricted definition. The petty bourgeoisie, therefore, are defined as those respondents who are self-employed but do not employ others; capitalists are defined as those respondents who are self-employed and do employ others.[4]

Authority

Wright's (1985; 1997) operationalization of authority is particularly complex; as such, the MCSUI does not contain a comparable measure. Instead, authority is operationalized in accordance with Wright (1979) which classifies a respondent as either a manager or a non-manager depending upon whether or not they supervise another employee who is directly responsible to them.[5]

[4]It might be argued that it is unreasonable to group together respondents employing a small number of individuals with those employing a large number of individuals. A better choice, for example, might be to compare small employers (respondents employing 0–9 individuals) and large employers (respondents employing 10 or more individuals). As discussed in Section 4.4.2, Footnote 3, Wright includes an intermediate category of "small employers" in order to insure the measurement purity of the petty bourgeoisie and capitalist class locations. For the present analysis, however, the small number of employers present in the dataset required collapsing some of the class locations together in order to increase the number of respondents in those cells.

The decision to collapse all employers together was theoretically guided in that it emphasizes the distinction between those who employ others and those who do not; in a more Marxist tone, it emphasizes the distinction between those who exploit others and those who do not. Although it is likely that there are important differences among employers depending upon company size, the present analysis is concerned with basic class distinctions. Fundamental to the Marxist conception of class is the question of whether one exploits labor or not. It is from this theoretical perspective, then, that the decision was made to collapse all employers together.

[5]The evolution of Wright's model of the capitalist class structure is a central theme of his 1985 text *Classes*. Included is a discussion of the complexity surrounding the authority measure. In particular, see pages 42–57 of Chapter 2 and all of Chapter 3. Additional discussion of the authority measure may be found in Wright's 1997 text *Class Counts*, pages 74–90.

Table 4.3: Means and Standard Errors of Independent Variables

	Mean	Std Error
Age	39.52	0.554
Presence of Children	0.40	0.021
Earnings	35008.83	962.498
Years of Education	14.25	0.098
Home Ownership	0.55	0.025
Marital Status	0.66	0.021
Occupational Prestige	48.11	0.597
Female	0.46	0.019
Married	0.66	0.021
Single Male	0.18	0.015
Single Female	0.16	0.016

Skill

Wright (1989, 1997) has moved from a complex, multidimensional measure of skill to one based solely upon occupational title. Embracing this simplified operationalization, the present analysis adopts standardized SOC codes as a basis from which to construct a measure of skill. Building upon the operationalization developed in Wright (1997, page 82), occupations were coded as reported in Table A.1, page 51.

4.4.3 Control Variables

Age

Age is measured in years. As discussed in Section 4.1, Footnote 2, the subset used in the present analysis is restricted to those respondents currently in the labor force. Since retired respondents are not included in the subset, the relationship between age and wealth is modeled as linear rather than curvilinear.

Socioeconomic Status

Earnings is operationalized as the natural logarithm of the annual income derived from the respondent's primary occupation, standardized to a 2,080-hour work year. *Educational attainment* is operationalized as years of education. *Occupational prestige* was computed by assigning each respondent a 1980 Census Occupational Code which was then matched to a 1989 GSS Occupational Prestige Score. *Home ownership* is coded as a dummy variable indicating whether the respondent owns or rents their residence.[6]

Family Structure

As discussed in Section 2.2.1, the interaction between marriage and gender is coded as a series of dummy variables: *single male*, *single female*, and *married*. *Married* is the omitted category.

Respondents are classified as *single* if they are currently unmarried, separated, or divorced and *married* if currently married, living with partner, or widowed. Cohabitation and widowhood both maintain a relationship to wealth possession which is parallel to that of traditional marriage. Specifically, with regard to the accumulation of wealth, the significance of marriage lies in the individual's access to multiple sources of financial assets. Unmarried individuals possess only their own assets; married, cohabitating, and widowed individuals, on the other hand, also have access to the assets of their partner.

Presence of children is a dummy variable indicating whether or not the respondent has any children under the age of 18. A limitation of the MCSUI is that it

[6]It could be argued that as the home is an important source of wealth for many people, this variable is actually a component of the dependent variable. However, as a dummy variable, the ability to purchase a home indicates that the respondent has achieved a certain level of economic stability and security. In this sense, home ownership acts as a proxy for the respondent's credit history.

does not inquire as to children aged 18 years or older; for cases which indicate the absence of children, the respondent may, in fact, have children of adult age. What effect this lack of data may have on the resulting analysis is unclear.

Chapter 5

Results and Discussion

As Table 5.2 reports, all variables, except for presence of children, are correlated with wealth. Results of the regression analysis presented in Table 5.3 report that only age, logged earnings, home ownership, and single female are significant predictors of wealth once other determinants are controlled.

As discussed in Section 2.2.1, it is likely that the effect of education on wealth accumulation is through education's influence on other variables such as earnings. The reason for the lack of an effect of occupational prestige on wealth accumulation is less clear. One possibility is that, since all are measures of socioeconomic status, there exists collinearity among earnings, education, and occupational prestige. Analysis of tolerance and variance-inflation factors (Table 5.1), however, do not indicate the presence of collinearity.

Considering the expense involved in raising children, it is surprising that presence of children is not a significant predictor of wealth. This may indicate that parents rely upon their income to pay for their children's expenses. On the other hand, this may simply reflect measurement error. As noted in Section 4.4.3, the MCSUI does not inquire as to whether the respondent has children over the age of 17. Perhaps children do not significantly impact wealth accumulation until they reach adult age at which time parents begin to draw upon their wealth reserves in order to assist their children in, for example, financing a college education or purchasing a home.

Table 5.1: Tolerance and Variance-Inflation Factors for SES Measures (Regression of Wealth on Earnings, Education, and Occupational Prestige)

	Coefficient	Tolerance	VIF
Constant	-153983.000		
Earnings	15429.818	0.818	1.223
Years of Education	217.479	0.733	1.365
Occupational Prestige	113.444	0.677	1.476
R^2	0.116		
N	836		

That single male is not a significant predictor of wealth indicates that average wealth for single males is roughly the same as the average wealth of married respondents. Section 5.1.4, below, discusses this finding.

5.1 Predictors of Wealth Accumulation

5.1.1 Age

Significant for all class locations except the petty bourgeoisie, age is the only variable which is a significant predictor of wealth for both capitalists and workers. As discussed in Section 4.2.1, limitations of the dataset make it impossible to distinguish between life-cycle effects and cohort effects. Nevertheless, it is clear that there is a historical dimension to the process of wealth accumulation which is independent of class location. Although the returns to age are substantially greater for capitalists than they are for workers, the basic relationship between age and wealth persists across class relations.

Table 5.2: Bivariate Correlations with Wealth by Class Location

	Age	Child	Earn	Educ	Home	Prestige	Married	Male	Female	N
Overall	0.443**	0.005	0.335**	0.139**	0.351**	0.186**	0.197**	-0.092**	-0.158**	836
Capitalist	0.509**	-0.173	0.093	0.060	0.364**	0.237*	0.179*	-0.144*	-0.091	56
Petty Bourgeois	0.198	-0.039	0.335**	0.380**	0.212	0.309**	0.139	-0.019	-0.165*	71
Worker	0.457**	0.023	0.364**	0.117**	0.357**	0.179**	0.200**	-0.094**	-0.158**	709
Middle Class	0.349**	0.023	0.197**	0.027*	0.287**	0.063**	0.148**	-0.010**	-0.159**	471
Manager	0.518**	0.023	0.421**	0.194**	0.410**	0.230**	0.252**	-0.138*	-0.183**	254
Skilled	0.500**	0.044**	0.372**	0.062	0.370**	0.075	0.244**	-0.153**	-0.161**	390
Proletariat	0.498**	0.028	0.385**	0.088	0.375**	0.117	0.216**	-0.141	-0.134**	238

$^{**}p < 0.05$ $^{*}p < 0.10$

Table 5.3: Determinants of Wealth (Measured in Thousands of Dollars) by Class Location

	R^2	Constant	Age		Earnings		Home	
Overall	0.286	-130.48**	0.86**	(0.103)	9.12**	(2.211)	9.32**	(2.276)
Capitalists	0.335	-62.07	1.28**	(0.350)	0.99	(9.306)	18.88	(16.946)
Petty Bourgeoisie	0.266	-173.63**	0.49	(0.394)	12.12*	(6.500)	1.86	(9.150)
Workers	0.296	-136.56**	0.86**	(0.120)	10.15**	(2.371)	9.36**	(2.370)
Middle Class	0.334	-161.34**	1.05**	(0.157)	12.62**	(2.928)	10.02**	(3.158)
Managers	0.378	-164.14**	1.07**	(0.229)	11.95**	(4.016)	13.30**	(4.243)
Skilled	0.334	-157.85**	1.06**	(0.168)	12.17**	(3.133)	9.57**	(3.432)
Proletariat	0.182	-70.70*	0.57**	(0.179)	3.67	(3.858)	7.78**	(3.601)

	Education		Prestige		Single Male		Single Female		N
Overall	0.64	(0.500)	0.06	(0.096)	0.12	(2.671)	-6.58**	(2.301)	836
Capitalists	-2.09	(3.713)	0.74	(0.667)	-1.33	(14.667)	-3.64	(23.298)	56
Petty Bourgeoisie	2.73	(2.383)	0.19	(0.330)	-8.00	(10.975)	-10.85	(9.329)	71
Workers	0.61	(0.531)	-0.03	(0.103)	0.74	(2.901)	-6.57**	(2.347)	709
Middle Class	0.46	(0.723)	-0.13	(0.127)	0.02	(3.814)	-8.51**	(3.197)	471
Managers	0.65	(0.977)	-0.06	(0.185)	4.21	(5.184)	-8.58*	(4.798)	254
Skilled	0.71	(0.877)	-0.17	(0.161)	-1.44	(4.105)	-10.39**	(3.295)	390
Proletariat	0.72	(0.711)	0.17	(0.252)	4.01	(3.824)	-5.19	(3.307)	238

$^{**}p < 0.05$ $^{*}p < 0.10$

Table 5.4: Mean Earnings by Class Location

	Mean Earnings	Std Err	N
Overall	35,008.83	962.498	836
Capitalists	49,076.23	4888.718	56
Petty Bourgeoisie	37,749.44	4345.076	71
Workers	33,530.53	956.238	709
Middle Class	38,377.55	1192.159	471
Managers	41,753.15	1848.700	254
Experts	40,192.98	1328.036	390
Workers	24,048.78	1054.907	238

5.1.2 Earnings

Earnings is a significant predictor of wealth for the petty bourgeoisie and the middle class. As higher earnings are associated with increased opportunities for investment, the lack of a relationship between earnings and wealth among the proletariat suggests that average earnings are not substantial enough to facilitate investment. Analysis of average earnings supports such a conclusion; Table 5.4 reports that average proletarian earnings are substantially less than overall earnings for the sample.

With a bivariate correlation of 0.09, it is clear that the association between earnings and wealth is extremely weak for capitalists. The absence of such a relationship suggests that capitalists tend to supplement their income with dividends from their wealth holdings and lends support to Keister's (2000) argument that much of the association between income and wealth is a function of asset income.

5.1.3 Home Ownership

Home ownership is a significant predictor of wealth for workers but not owners. This is consistent with previous research which has found that the proportion of home equity as a component of total wealth increases as household wealth declines (Wolff, 1994). For workers, home ownership is a critical indicator of available economic resources: median wealth for home owners is 10 times greater that it is for renters.

5.1.4 Marital Status and Gender

As expected, married respondents report substantially greater levels of wealth than either single male or single female respondents. However, the difference between married respondents and single males disappears once other variables are controlled: the effects of marital status and gender on wealth are only significant for single females. Moreover, this effect is restricted to the middle class; marital status and gender are not significant predictors of wealth for either owners or the proletariat.

That the wealth difference between married respondents and single males disappears once other variables are controlled disputes Keister's argument (see Section 2.2.1) that marriage produces an economy of scale which facilitates the accumulation of wealth. Instead, it appears that the benefits of marriage are found in the characteristics of married individuals. Table 5.5 reports that married respondents tend to be older than single respondents. Furthermore, when compared with their single counterparts, married respondents are more likely to own their home and tend to have higher earnings.

Explaining the relative wealth deprivation of middle class single females will require further research. Occupational sex segregation is a likely culprit. Employment benefits such as health insurance and retirement programs are critical to freeing up assets which would otherwise be allocated toward basic necessities. To the extent that

Table 5.5: Age, Earnings, and Home Ownership by Marital Status

	Mean Age		Mean Earnings		Own Home (%)	N
Married	41.39	(0.667)	37,499.84	(1319.549)	66	461
Single Male	35.05	(0.953)	33,319.12	(1777.413)	23	188
Single Female	36.91	(1.316)	26,783.81	(1501.345)	41	187
All Respondents	39.52	(0.554)	35,008.83	(962.498)	55	836

Table 5.6: Wealth of Single Women with/without Children

	Mean Wealth	Std Err	N
Single Women with Children	-826.53	1492.814	51
Single Women without Children	3,126.66	2421.304	137
All Single Women	2,189.91	1835.400	188

single women are disproportionately employed in occupations represented by limited benefit packages, their ability to save will suffer. The presence of children may also be important. As Table 5.1.4 reports, single women with children have substantially less wealth than single women without children. Finally, saving preferences may play a role; the investment choices of single women may not provide significant return compared to those of single men and married couples. Analysis of home ownership rates, however, does not support such a conclusion: single females have a higher rate of home ownership than do single males.

Table 5.7: Wealth by Class Location

	Mean		Median		N
Overall	20,211.67	(3818.764)	2499.78	(2499.78)	836
Capitalist	23,908.33	(6201.992)	7119.85	(9917.967)	56
Petty Bourgeois	17,075.69	(4692.094)	2467.17	(2260.218)	71
Worker	11,927.76	(1531.224)	-22.52	(631.836)	709
Middle Class	15,275.77	(1904.838)	2499.83	(1518.323)	471
Manager	18,374.24	(2843.816)	4999.66	(2082.311)	254
Skilled	16,277.19	(2051.916)	3418.36	(1909.416)	390
Proletariat	5,378.37	(1878.002)	-840.68	(311.932)	238

5.2 Class Location and Wealth Accumulation

With only 56 capitalists and 71 petty bourgeoisie in the sample, conclusions regarding these class locations must considered tentative. Nevertheless, ownership of capital appears to be a defining characteristic of the wealth accumulation process. The process of accumulating wealth varies considerably among capitalists, petty bourgeoisie, and workers. For capitalists, only age is a significant predictor of wealth. In contrast, a number of variables are significant predictors of wealth for workers—including age, earnings, home ownership, marital status, and gender. The petty bourgeoisie are unique in that they are the only class location for which age is not a significant predictor of wealth. In fact, earnings is the only variable which is a significant predictor of wealth for the petty bourgeoisie.

Among workers, the middle class and the proletariat are more similar than dissimilar. Nevertheless, there are important differences between these class locations. In particular, wealth holdings of the proletariat are severely constrained in comparison to the middle class.

5.2.1 Capitalists

As would be expected, average wealth is greater for capitalists than for any other class location. In terms of mean wealth, capitalists possess approximately 1.4 times the wealth of petty bourgeoisie and twice as much wealth as workers. However, it is important to note that the wealth advantage of capitalists is not a function of their increased earnings: for capitalists, age is the only significant predictor of wealth. This suggests that capitalist wealth accumulation is largely a function of the appreciation of assets over time rather than the diversion of earnings into savings. Indeed, across all class locations, returns to earnings are lowest among capitalists.

5.2.2 Petty Bourgeoisie

The process of petty bourgeois wealth accumulation appears to be distinctly different from that of other class locations. Closer to the middle class in terms of median wealth, the petty bourgeoisie are substantially worse off than capitalists. Moreover, the petty bourgeoisie are the only class location for which age is not a significant predictor of wealth.

At a median age of 41 years, the petty bourgeoisie are just slightly older than the middle class (38 years) and only slightly younger than capitalists (45 years); therefore, it does not appear that the insignificance of age is a result of assets not having enough time to appreciate. Rather, it suggests that the petty bourgeoisie trade financial security for capital by investing a sizable portion of their financial assets in their businesses. Such a reduction in assets would permit little opportunity for appreciation. That earnings is the only significant predictor of wealth for the petty bourgeoisie supports such a conclusion suggesting that income from the business serves as the primary source for savings.

5.2.3 Workers

In terms of average wealth, the middle class is substantially better off than the proletariat. Despite such differences of magnitude, however, the underlying process of wealth accumulation appears to be the same for all workers. For example, although returns are considerably smaller for the proletariat, age and home ownership are significant for both the middle class and the proletariat.

Middle Class

Apart from a slight wealth advantage for managers, managers and experts appear to be almost identical with regard to the process of wealth accumulation. Significant predictors of wealth for both managers and experts include age, earnings, home ownership, and single female. Indeed, returns to age and earnings are indistinguishable by class location.

For age and earnings, the effect on wealth is identical for both managers and experts. The costs to being a single female, however, are slightly diminished for managers. This indicates greater gender inequality among experts. Returns to home ownership exhibit the greatest difference: for managers, home ownership is worth approximately 28 percent more than it is for experts. As home ownership rates are approximately 60 percent for both managers and experts, the reason for such a difference is unclear.

Proletariat

Average proletariat wealth is considerably less than that of managers and experts. The strength of the relationship between wealth and its predictors is similarly weakened. In particular, among the proletariat, returns to earnings and single female are reduced to the point that they are no longer significant predictors of wealth.

Table 5.8: Wealth of Married Respondents by Class Location

	Mean		Median		N
Overall	17599.05	(1853.862)	2499.90	(1358.037)	461
Capitalists	27277.83	(7519.162)	18252.37	(16973.351)	39
Petty Bourgeoisie	20588.46	(7083.196)	2499.89	(9238.539)	32
Workers	16285.67	(1970.981)	2499.78	(1568.807)	390
Middle Class	20082.15	(2477.168)	6249.81	(2857.384)	263
Managers	24073.30	(3629.064)	11249.90	(5675.513)	138
Experts	21507.72	(2610.441)	9999.59	(3985.333)	228
Proletariat	8198.41	(2523.172)	-389.53	(846.730)	127

The absence of a relationship between wealth and single female is easily explained. As reported in Table 5.8, mean wealth for married couples is substantially lower for the proletariat than for any other class location. The absence of a significant relationship between wealth and single female simply reflects the low wealth holdings of married couples in the proletariat.

Similarly, the diminished relationship between wealth and earnings is a reflection of the lower average wealth of the proletariat. The restricted size distribution of wealth for the proletariat serves to constrain the wealth accumulation process. The lack of significance for earnings, therefore, does not necessarily indicate the absence of a relationship; rather, it is more likely that the relationship simply is not observable given such low levels of wealth accumulation.

Chapter 6

Conclusion

The results presented here indicate that it is important to account for the role of the class structure in shaping the distribution of wealth. Capitalists, petty bourgeoisie, and workers each exhibit distinct patterns of saving and wealth accumulation. Future research into the dynamics of wealth accumulation and inequality should, at a minimum, control for these basic class locations. Certain inquiries (e.g., a micro-level prediction model of the wealth distribution) will additionally benefit from distinguishing between the middle and proletariat class locations.

The distinction between capitalists and petty bourgeoisie is particularly important as it demonstrates that capital, in and of itself, does not produce a great amount of wealth. Hiring labor is the key to substantial wealth accumulation. Indeed, many petty bourgeoisie would be better off if they exchanged their capital for authority or expertise. Although the process of wealth accumulation appears to be the same for all workers, membership in the middle class opens the door to substantially higher levels of wealth ownership.

6.1 Policy Implications

If we wish to combat wealth inequality, an understanding of the class character of wealth is crucial. A popular recommendation for the relief of wealth disparities is to reduce inequality in earnings. However, although capitalists tend to have higher earnings than other class locations, evidence presented here indicates that capitalist

wealth is largely derived from sources other than earnings. Reduction of income inequality may be desirable for a number of reasons; reduction of wealth inequality, however, is not among them.

Furthermore, policy recommendations which ignore the ways in which class structures the wealth distribution may have unintended consequences. Because home equity is such a critical component of middle class and proletariat wealth, property taxes will disproportionately harm the working class. Similarly, evidence presented here indicates that the petty bourgeoisie allocate the majority of their financial resources to sustaining and developing their businesses. Already in a precarious position, taxing capital assets may leave petty bourgeoisie families without an adequate safety net.

6.2 Directions for Future Research

The recognition of unique patterns of wealth accumulation by class location invites further study of the ways in which the class structure shapes the inequality of wealth. At the macro-level, for example, examination of transformations in the class structure may shed light on historical trends in wealth inequality. Similarly, analysis of class composition may inform the study of wealth inequality by race and gender. At the micro-level, an understanding of class interests can provide a foundation from which to conduct a study of saving preferences, motives, and behavior. Likewise, examination of class mobility may reveal the dynamics which underlie wealth mobility.

This research also suggests that a detailed examination of the saving patterns of capitalists, petty bourgeoisie, and workers is in order. While it is evident that the process of wealth accumulation varies by class location, the effect of class location on saving behavior is unknown. Do capitalists save from their earnings, despite the

fact that such saving makes up only a small portion of their overall wealth? What motivates the petty bourgeoisie to trade financial security for the opportunity to invest in capital? Does the importance of home ownership for workers encourage saving for a down payment?

Requiring both quantitative and qualitative research, the answers to such questions will shape our understanding of not just wealth inequality but social and economic inequality in general.

Bibliography

Achen, Christopher. 1982. *Interpreting and Using Regression*. Newbury Park: Sage.

Ando, Albert and Frank Modigliani. 1963. "The Life-Cycle Hypothesis of Saving: Aggregate Implications and Tests." *American Economic Review* 53:55–84

Angle, John. 1986. "The Surplus Theory of Social Stratification and the Size Distribution of Wealth." *Social Forces* 65:293–326

Avery, Robert and Arthur Kennickell. 1991. "Household Saving in the U.S." *Review of Income and Wealth* 37:409-32

Berry, William. 1993. *Understanding Regression Assumptions*. Newbury Park: Sage.

Blau, Peter and Otis Dudley Duncan. 1967. *The American Occupational Structure*. New York: Wiley.

Blau, Francine and John Graham. 1990. "Black-White Differences in Wealth and Asset Composition." *Quarterly Journal of Economics* May:321-39

Bobo, Lawrence, James Johnson, Melvin Oliver, Reynolds Farley, Barry Bluestone, Irene Browne, Sheldon Danziger, Gary Green, Harry Holzer, Maria Krysan, Michael Massagli, and Camille Zubrinsky Charles. MULTI-CITY STUDY OF URBAN INEQUALITY, 1992-1994: [ATLANTA, BOSTON,

DETROIT, AND LOS ANGELES] [HOUSEHOLD SURVEY DATA] [Computer file]. 3rd ICPSR version. Atlanta, GA: Mathematica/Boston, MA: University of Massachusetts, Survey Research Laboratory/Ann Arbor, MI: University of Michigan, Detroit Area Study and Institute for Social Research, Survey Research Center/Los Angeles, CA: University of California, Survey Research Program [producers], 1998. Inter-university Consortium for Political and Social Research [distributor].

Braun, Denny. 1997. *The Rich Get Richer*. Chicago: Nelson Hall.

Campbell, Richard and John Henretta. 1980. "Status Claims and Status Attainment: The Determinants of Financial Well-Being." *American Journal of Sociology* 86:618-29.

Conley, Dalton. 1999. *Being Black, Living in the Red*. Berkeley: California University Press.

Fox, John. 1991. *Regression Diagnostics*. Newbury Park: Sage.

Henretta, John and Richard Campbell. 1978. "Net Worth as an Aspect of Status." *American Journal of Sociology* 83:1204-23

Jappelli, Tullio. 1999. "The Age-Wealth Profile and the Life-Cycle Hypothesis: A Cohort Analysis with a Time Series of Cross-Sections of Italian Households." *Review of Income and Wealth* 45(1): 57-75

Juster, F. Thomas and Kathleen Kuester. 1991. "Differences in the Measurement of Wealth, Wealth Inequality, and Wealth Composition Obtained from Alternative U.S. Wealth Surveys." *Review of Income and Wealth* 37:33-62.

Keister, Lisa. 2000. *Wealth in America: Trends in Wealth Inequality*. Cambridge: Cambridge University Press.

Keister, Lisa and Stephanie Moller. 2000. "Wealth Inequality in the United States." *Annual Review of Sociology* 26:63-81

Kennickell, Arthur and Martha Starr-McCluer. 1997. "Household Saving and Portfolio Change: Evidence From the 1983-89 SCF Panel." *Review of Income and Wealth* 43:381–99

Kennickell, Arthur. 1995. "Saving and Permanent Income: Evidence from the 1992 SCF." Working Paper, Board of Governors of the Federal Reserve Board.

Modigliani, Franco. 1988. "The Role of Intergenerational Transfers and Life Cycle Saving in the Accumulation of Wealth." *Journal of Economic Perspectives* 2:15–40

Oliver, Melvin and Thomas Shapiro. 1992. *Black Wealth, White Wealth.* London: Routledge.

Rumberger, Russell. 1983. "The Influence of Family Background on Education, Earnings, and Wealth." *Social Forces* 61:755-73

Wolff, Edward. 1983. "The Size Distribution of Household Disposable Wealth in the United States." *Review of Income and Wealth* 29:125-46

Wolff, Edward. 1987. "Estimates of Household Disposable Wealth in the United States." *Review of Income and Wealth* 33:231-56

Wolff, Edward. 1994. "Trends in Household Wealth in the United States, 1962-83 and 1983-89." *Review of Income and Wealth* 40:143-74

Wolff, Edward. 1995. *Top Heavy: The Increasing Inequality of Wealth in America and What Can Be Done about It.* New York: The New Press.

Wolff, Edward. 1996. "International Comparisons of Wealth Inequality." *Review of Income and Wealth* 42:433-51

Wright, Erik Olin. 1979. *Class Structure and Income Determination*. New York: Academic Press.

Wright, Erik Olin. 1983. "Race, Class, and Income." *American Journal of Sociology* 83:1368-97

Wright, Erik Olin. 1985. *Classes*. London: Verso.

Wright, Erik Olin. 1989. *The Debate on Classes*. London: Verso.

Wright, Erik Olin. 1994. *Interrogating Inequality*. London: Verso.

Wright, Erik Olin. 1997. *Class Counts: Comparative Studies in Class Analysis*. Cambridge: Cambridge University Press.

Zagorsky, Jay. 1999. "Young Baby Boomers' Wealth." *Review of Income and Wealth* 45:135-56

Appendix A

Operationalization of Expertise

Table A.1: Operationalization of the Expertise Measure

SOC	Occupation	Classification
003	Legislators	Expert
004	Chief Executives and General Administrators, Public Administration	Expert
005	Administrators and Officials, Public Administration	Expert
006	Administrators, Protective Service	Expert
007	Financial Managers	Expert
008	Personnel and Labor Relations Managers	Expert
009	Purchasing Managers	Expert
013	Managers, Marketing, Advertising, and Public Relations	Expert
014	Administrators, Education and Related Fields	Expert
015	Managers, Medicine and Health	Expert
016	Managers, Properties and Real Estate	Expert
017	Postmasters and Mail Superintendents	Expert
018	Funeral Directors	Expert
019	Managers and Administrators, n.e.c.	Expert
023	Accountants and Auditors	Expert

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Table A.1: Operationalization of Expertise *(continued)*

SOC	Occupation	Classification
024	Underwriters	Expert
025	Other Financial Officers	Expert
026	Management Analysts	Expert
027	Personnel, Training, and Labor Relations Specialists	Expert
028	Purchasing Agents and Buyers, Farm Products	Expert
029	Buyers, Wholesale and Retail Trade Except Farm Products	Expert
033	Purchasing Agents and Buyers	Expert
034	Business and Promotion Agents	Expert
035	Construction Inspectors	Expert
036	Inspectors and Compliance Officers, Except Construction	Expert
037	Management Related Occupations, n.e.c.	Expert
043	Architects	Expert
044	Aerospace Engineers	Expert
045	Metallurgical and Materials Engineers	Expert
046	Mining Engineers	Expert
047	Petroleum Engineers	Expert
048	Chemical Engineers	Expert
049	Nuclear Engineers	Expert
053	Civil Engineers	Expert
054	Agricultural Engineers	Expert
055	Electrical and Electronic Engineers	Expert
056	Industrial Engineers	Expert
057	Mechanical Engineers	Expert

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Table A.1: Operationalization of Expertise *(continued)*

SOC	Occupation	Classification
058	Marine and Naval Architects	Expert
059	Engineers, n.e.c.	Expert
063	Surveyors and Mapping Scientists	Expert
064	Computer Systems Analysts and Scientists	Expert
065	Operations and Systems Researchers and Analysts	Expert
066	Actuaries	Expert
067	Statisticians	Expert
068	Mathematical Scientists, n.e.c.	Expert
069	Physicists and Astronomers	Expert
073	Chemists, Except Biochemists	Expert
074	Atmospheric and Space Scientists	Expert
075	Geologists and Geodesists	Expert
076	Physical Scientists, n.e.c.	Expert
077	Agricultural and Food Scientists	Expert
078	Biological and Life Scientists	Expert
079	Forestry and Conservation Scientists	Expert
083	Medical Scientists	Expert
084	Physicians	Expert
085	Dentists	Expert
086	Veterinarians	Expert
087	Optometrists	Expert
088	Podiatrists	Expert
089	Health Diagnosing Practitioners, n.e.c.	Expert

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Table A.1: Operationalization of Expertise *(continued)*

SOC	Occupation	Classification
095	Registered Nurses	Expert
096	Pharmacists	Expert
097	Dietitians	Expert
098	Inhalation Therapists	Expert
099	Occupational Therapists	Expert
103	Physical Therapists	Expert
104	Speech Therapists	Expert
105	Therapists, n.e.c.	Expert
106	Physicians' Assistants	Expert
113	Earth, Environmental, and Marine Science Teachers	Expert
114	Biological Science Teachers	Expert
115	Chemistry Teachers	Expert
116	Physics Teachers	Expert
117	Natural Science Teachers, n.e.c.	Expert
118	Psychology Teachers	Expert
119	Economics Teachers	Expert
123	History Teachers	Expert
124	Political Science Teachers	Expert
125	Sociology Teachers	Expert
126	Social Science Teachers, n.e.c.	Expert
127	Engineering Teachers	Expert
128	Mathematical Science Teachers	Expert
129	Computer Science Teachers	Expert

continued on next page

Table A.1: Operationalization of Expertise *(continued)*

SOC	Occupation	Classification
133	Medical Science Teachers	Expert
134	Health Specialties Teachers	Expert
135	Business, Commerce, and Marketing Teachers	Expert
136	Agriculture and Forestry Teachers	Expert
137	Art, Drama, and Music Teachers	Expert
138	Physical Education Teachers	Expert
139	Education Teachers	Expert
143	English Teachers	Expert
144	Foreign Language Teachers	Expert
145	Law Teachers	Expert
146	Social Work Teachers	Expert
147	Theology Teachers	Expert
148	Trade and Industrial Teachers	Expert
149	Home Economics Teachers	Expert
153	Teachers, Postsecondary, n.e.c.	Expert
154	Postsecondary Teachers, Subject Not Specified	Expert
155	Teachers, Prekindergarten and Kindergarten	Expert
156	Teachers, Elementary School	Expert
157	Teachers, Secondary School	Expert
158	Teachers, Special Education	Expert
159	Teachers, n.e.c.	Expert
163	Counselors, Educational and Vocational	Expert
164	Librarians	Expert

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Table A.1: Operationalization of Expertise *(continued)*

SOC	Occupation	Classification
165	Archivists and Curators	Expert
166	Economists	Expert
167	Psychologists	Expert
168	Sociologists	Expert
169	Social Scientists, n.e.c.	Expert
173	Urban Planners	Expert
174	Social Workers	Expert
175	Recreation Workers	Expert
176	Clergy	Expert
177	Religious Workers, n.e.c.	Expert
178	Lawyers	Expert
179	Judges	Expert
183	Authors	Expert
184	Technical Writers	Expert
185	Designers	Expert
186	Musicians and Composers	Expert
187	Actors and Directors	Expert
188	Painters, Sculptors, Craft-Artists, and Artist Printmakers	Expert
189	Photographers	Expert
193	Dancers	Expert
194	Artists, Performers, and Related Workers, n.e.c.	Expert
195	Editors and Reporters	Expert
197	Public Relations Specialists	Expert

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Table A.1: Operationalization of Expertise *(continued)*

SOC	Occupation	Classification
198	Announcers	Expert
199	Athletes	Expert
203	Clinical Laboratory Technologists and Technicians	Expert
204	Dental Hygienists	Expert
205	Health Record Technologists and Technicians	Expert
206	Radiologic Technicians	Expert
207	Licensed Practical Nurses	Expert
208	Health Technologists and Technicians, n.e.c.	Expert
213	Electrical and Electronic Technicians	Expert
214	Industrial Engineering Technicians	Expert
215	Mechanical Engineering Technicians	Expert
216	Engineering Technicians, n.e.c.	Expert
217	Drafting Occupations	Expert
218	Surveying and Mapping Technicians	Expert
223	Biological Technicians	Expert
224	Chemical Technicians	Expert
225	Science Technicians, n.e.c.	Expert
226	Airplane Pilots and Navigators	Expert
227	Air Traffic Controllers	Expert
228	Broadcast Equipment Operators	Expert
229	Computer Programmers	Expert
233	Tool Programmers, Numerical Control	Expert
234	Legal Assistants	Expert

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Table A.1: Operationalization of Expertise *(continued)*

SOC	Occupation	Classification
235	Technicians, n.e.c.	Expert
243	Supervisors and Proprietors, Sales Occupations	Nonskilled
253	Insurance Sales Occupations	Nonskilled
254	Real Estate Sales Occupations	Nonskilled
255	Securities and Financial Services Sales Occupations	Nonskilled
256	Advertising and Related Sales Occupations	Nonskilled
257	Sales Occupations, Other Business Services	Nonskilled
258	Sales Engineers	Nonskilled
259	Sales Representatives, Mining, Manufacturing, and Wholesale	Nonskilled
263	Sales Workers, Motor Vehicles and Boats	Nonskilled
264	Sales Workers, Apparel	Nonskilled
265	Sales Workers, Shoes	Nonskilled
266	Sales Workers, Furniture and Home Furnishings	Nonskilled
267	Sales Workers, Radio, TV, Hi-Fi, and Appliances	Nonskilled
268	Sales Workers, Hardware and Building Supplies	Nonskilled
269	Sales Workers, Parts	Nonskilled
274	Sales Workers, Other Commodities	Nonskilled
275	Sales Counter Clerks	Nonskilled
276	Cashiers	Nonskilled
277	Street and Door-To-Door Sales Workers	Nonskilled
278	News Vendors	Nonskilled
283	Demonstrators, Promoters and Models, Sales	Nonskilled
284	Auctioneers	Nonskilled

continued on next page

Table A.1: Operationalization of Expertise *(continued)*

SOC	Occupation	Classification
285	Sales Support Occupations, n.e.c.	Nonskilled
303	Supervisors, General Office	Nonskilled
304	Supervisors, Computer Equipment Operators	Nonskilled
305	Supervisors, Financial Records Processing	Nonskilled
306	Chief Communications Operators	Nonskilled
307	Supervisors, Distribution, Scheduling, and Adjusting Clerks	Nonskilled
308	Computer Operators	Nonskilled
309	Peripheral Equipment Operators	Nonskilled
313	Secretaries	Nonskilled
314	Stenographers	Nonskilled
315	Typists	Nonskilled
316	Interviewers	Nonskilled
317	Hotel Clerks	Nonskilled
318	Transportation Ticket and Reservation Agents	Nonskilled
319	Receptionists	Nonskilled
323	Information Clerks, n.e.c.	Nonskilled
325	Classified-Ad Clerks	Nonskilled
326	Correspondence Clerks	Nonskilled
327	Order Clerks	Nonskilled
328	Personnel Clerks, Except Payroll and Timekeeping	Nonskilled
329	Library Clerks	Nonskilled
335	File Clerks	Nonskilled
336	Records Clerks	Nonskilled

continued on next page

Table A.1: Operationalization of Expertise *(continued)*

SOC	Occupation	Classification
337	Bookkeepers, Accounting and Auditing Clerks	Nonskilled
338	Payroll and Timekeeping Clerks	Nonskilled
339	Billing Clerks	Nonskilled
343	Cost and Rate Clerks	Nonskilled
344	Billing, Posting, and Calculating Machine Operators	Nonskilled
345	Duplicating Machine Operators	Nonskilled
346	Mail Preparing and Paper Handling Machine Operators	Nonskilled
347	Office Machine Operators, n.e.c.	Nonskilled
348	Telephone Operators	Nonskilled
349	Telegraphers	Nonskilled
353	Communications Equipment Operators, n.e.c.	Nonskilled
354	Postal Clerks, Excluding Mail Carriers	Nonskilled
355	Mail Carriers, Postal Service	Nonskilled
356	Mail Clerks, Excluding Postal Service	Nonskilled
357	Messengers	Nonskilled
359	Dispatchers	Nonskilled
363	Production Coordinators	Nonskilled
364	Traffic, Shipping and Receiving Clerks	Nonskilled
365	Stock and Inventory Clerks	Nonskilled
366	Meter Readers	Nonskilled
368	Weighers, Measurers, and Checkers	Nonskilled
369	Samplers	Nonskilled
373	Expediters	Nonskilled

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Table A.1: Operationalization of Expertise *(continued)*

SOC	Occupation	Classification
374	Material Recording, Scheduling and Distributing Clerks, n.e.c.	Nonskilled
375	Insurance Adjusters, Examiners, and Investigators	Nonskilled
376	Investigators and Adjusters, Except Insurance	Nonskilled
377	Eligibility Clerks, Social Welfare	Nonskilled
378	Bill and Account Collectors	Nonskilled
379	General Office Clerks	Nonskilled
383	Bank Tellers	Nonskilled
384	Proofreaders	Nonskilled
385	Data-Entry Keyers	Nonskilled
386	Statistical Clerks	Nonskilled
387	Teachers' Aides	Nonskilled
389	Administrative Support Occupations, n.e.c.	Nonskilled
403	Launderers and Ironers	Nonskilled
404	Cooks, Private Household	Nonskilled
405	Housekeepers and Butlers	Nonskilled
406	Child Care Workers, Private Household	Nonskilled
407	Private Household Cleaners and Servants	Nonskilled
413	Supervisors, Firefighting and Fire Prevention Occupations	Expert
414	Supervisors, Police and Detectives	Expert
415	Supervisors, Guards	Expert
416	Fire Inspection and Fire Prevention Occupations	Expert
417	Firefighting Occupations	Expert
418	Police and Detectives, Public Service	Expert

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Table A.1: Operationalization of Expertise *(continued)*

SOC	Occupation	Classification
423	Sheriffs, Bailiffs, and Other Law Enforcement Officers	Expert
424	Correctional Institution Officers	Expert
425	Crossing Guards	Expert
426	Guards and Police, Excluding Public Service	Expert
427	Protective Service Occupations	Expert
433	Supervisors, Food Preparation and Service Occupations	Nonskilled
434	Bartenders	Nonskilled
435	Waiters and Waitresses	Nonskilled
436	Cooks, Except Short Order	Nonskilled
437	Short-Order Cooks	Nonskilled
438	Food Counter, Fountain and Related Occupations	Nonskilled
439	Kitchen Workers, Food Preparation	Nonskilled
443	Waiters'/Waitresses' Assistants	Nonskilled
444	Miscellaneous Food Preparation Occupations	Nonskilled
445	Dental Assistants	Nonskilled
446	Health Aids, Except Nursing	Nonskilled
447	Nursing Aides, Orderlies and Attendants	Nonskilled
448	Supervisors, Cleaning and Building Service Workers	Nonskilled
449	Maids and Housemen	Nonskilled
453	Janitors and Cleaners	Nonskilled
454	Elevator Operators	Nonskilled
455	Pest Control Occupations	Nonskilled
456	Supervisors, Personal Service Occupations	Nonskilled

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Table A.1: Operationalization of Expertise *(continued)*

SOC	Occupation	Classification
457	Barbers	Nonskilled
458	Hairdressers and Cosmetologists	Nonskilled
459	Attendants, Amusement and Recreation Facilities	Nonskilled
463	Guides	Nonskilled
464	Ushers	Nonskilled
465	Public Transportation Attendants	Nonskilled
466	Baggage Porters and Bellhops	Nonskilled
467	Welfare Service Aides	Nonskilled
468	Child Care Workers, Except Private Household	Nonskilled
469	Personal Service Occupations, n.e.c.	Nonskilled
473	Farmers, Except Horticultural	Expert
474	Horticultural Specialty Farmers	Expert
475	Managers, Farms, Except Horticultural	Expert
476	Managers, Horticultural Specialty Farms	Expert
477	Supervisors, Farm Workers	Nonskilled
479	Farm Workers	Nonskilled
483	Marine Life Cultivation Workers	Nonskilled
484	Nursery Workers	Nonskilled
485	Supervisors, Related Agricultural Occupations	Nonskilled
486	Groundskeepers and Gardeners, Except Farm	Nonskilled
487	Animal Caretakers, Except Farm	Nonskilled
488	Graders and Sorters, Agricultural Products	Nonskilled
489	Inspectors, Agricultural Products	Nonskilled

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Table A.1: Operationalization of Expertise *(continued)*

SOC	Occupation	Classification
494	Supervisors, Forestry and Logging Workers	Nonskilled
495	Forestry Workers, Except Logging	Nonskilled
496	Timber Cutting and Logging Occupations	Nonskilled
497	Captains and Other Officers, Fishing Vessels	Expert
498	Fishers	Expert
499	Hunters and Trappers	Expert
503	Supervisors, Mechanics and Repairers	Expert
505	Automobile Mechanics, Except Apprentices	Expert
506	Automobile Mechanic Apprentices	Expert
507	Bus, Truck, and Stationary Engine Mechanics	Expert
508	Aircraft Engine Mechanics	Expert
509	Small Engine Repairers	Expert
514	Automobile Body and Related Repairers	Expert
515	Aircraft Mechanics, Excluding Engine	Expert
516	Heavy Equipment Mechanics	Expert
517	Farm Equipment Mechanics	Expert
518	Industrial Machinery Repairers	Expert
519	Machinery Maintenance Occupations	Expert
523	Electronic Repairers, Communications and Industrial Equipment	Expert
525	Data Processing Equipment Repairers	Expert
526	Household Appliance and Power Tool Repairers	Expert
527	Telephone Line Installers and Repairers	Expert
529	Telephone Installers and Repairers	Expert

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Table A.1: Operationalization of Expertise *(continued)*

SOC	Occupation	Classification
533	Miscellaneous Electrical and Electronic Equipment Repairers	Expert
534	Heating, Air Conditioning, and Refrigeration Mechanics	Expert
535	Camera, Watch, and Musical Instrument Repairers	Expert
536	Locksmiths and Safe Repairers	Expert
538	Office Machine Repairers	Expert
539	Mechanical Controls and Valve Repairers	Expert
543	Elevator Installers and Repairers	Expert
544	Millwrights	Expert
547	Specified Mechanics and Repairers, n.e.c.	Expert
549	Not Specified Mechanics and Repairers	Expert
553	Supervisors, Brickmasons, Stonemasons, and Tile Setters	Expert
554	Supervisors, Carpenters and Related Work	Expert
555	Supervisors, Electricians and Power Transmission Installers	Expert
556	Supervisors, Painters, Paperhangers, and Plasterers	Expert
557	Supervisors, Plumbers, Pipefitters, and Steamfitters	Expert
558	Supervisors, n.e.c.	Expert
563	Brickmasons and Stonemasons, Except Apprentices	Expert
564	Brickmasons and Stonemasons Apprentices	Expert
565	Tile Setters, Hard and Soft	Expert
566	Carpet Installers	Expert
567	Carpenters, Except Apprentices	Expert
569	Carpenter Apprentices	Expert
573	Drywall Installers	Expert

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Table A.1: Operationalization of Expertise *(continued)*

SOC	Occupation	Classification
575	Electricians, Except Apprentices	Expert
576	Electrician Apprentices	Expert
577	Electrical Power Installers and Repairers	Expert
579	Painters, Construction and Maintenance	Expert
583	Paperhangers	Expert
584	Plasterers	Expert
585	Plumbers, Pipefitters, and Steamfitters, Except Apprentices	Expert
587	Plumber, Pipefitter, and Steamfitter Apprentices	Expert
588	Concrete and Terrazzo Finishers	Expert
589	Glaziers	Expert
593	Insulation Workers	Expert
594	Paving, Surfacing, and Tamping Equipment Operators	Expert
595	Roofers	Expert
596	Sheetmetal Duct Installers	Expert
597	Structural Metal Workers	Expert
598	Drillers, Earth	Expert
599	Construction Trades, n.e.c.	Expert
613	Supervisors, Extractive Occupations	Expert
614	Drillers, Oil Well	Expert
615	Explosives Workers	Expert
616	Mining Machine Operators	Expert
617	Mining Occupations, n.e.c.	Expert
633	Supervisors, Production Occupations	Expert

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Table A.1: Operationalization of Expertise *(continued)*

SOC	Occupation	Classification
634	Tool and Die Makers, Except Apprentices	Expert
635	Tool and Die Maker Apprentices	Expert
636	Precision Assemblers, Metal	Expert
637	Machinists, Except Apprentices	Expert
639	Machinist Apprentices	Expert
643	Boilermakers	Expert
644	Precision Grinders, Fitters, and Tool Sharpeners	Expert
645	Patternmakers and Model Makers, Metal	Expert
646	Lay-Out Workers	Expert
647	Precious Stones and Metals Workers	Expert
649	Engravers, Metal	Expert
653	Sheet Metal Workers, Except Apprentices	Expert
654	Sheet Metal Worker, Apprentices	Expert
655	Miscellaneous Precision Metal Workers	Expert
656	Patternmakers and Model Makers, Wood	Expert
657	Cabinet Makers and Bench Carpenters	Expert
658	Furniture and Wood Finishers	Expert
659	Miscellaneous Precision Woodworkers	Expert
666	Dressmakers	Expert
667	Tailors	Expert
668	Upholsterers	Expert
669	Shoe Repairers	Expert
673	Apparel and Fabric Patternmakers	Expert

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Table A.1: Operationalization of Expertise *(continued)*

SOC	Occupation	Classification
674	Miscellaneous Precision Apparel and Fabric Workers	Expert
675	Hand Molders and Shapers, Except Jewelers	Expert
676	Patternmakers, Lay-Out Workers, and Cutters	Expert
677	Optical Goods Workers	Expert
678	Dental Laboratory and Medical Appliances Technicians	Expert
679	Bookbinders	Expert
683	Electrical and Electronic Equipment Assemblers	Expert
684	Miscellaneous Precision Workers, n.e.c.	Expert
686	Butchers and Meat Cutters	Expert
687	Bakers	Expert
688	Food Batchmakers	Expert
689	Inspectors, Testers, and Graders	Expert
693	Adjusters and Calibrators	Expert
694	Water and Sewage Treatment Plant Operators	Expert
695	Power Plant Operators	Expert
696	Stationary Engineers	Expert
699	Miscellaneous Plant and System Operators	Expert
703	Lathe and Turning Machine Set-Up Operators	Nonskilled
704	Lathe and Turning Machine Operators	Nonskilled
705	Milling and Planing Machine Operators	Nonskilled
706	Punching and Stamping Press Machine Operators	Nonskilled
707	Rolling Machine Operators	Nonskilled
708	Drilling and Boring Machine Operators	Nonskilled

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Table A.1: Operationalization of Expertise *(continued)*

SOC	Occupation	Classification
709	Grinding, Abrading, Buffing, and Polishing Machine Operators	Nonskilled
713	Forging Machine Operators	Nonskilled
714	Numerical Control Machine Operators	Nonskilled
715	Working Machine Operators	Nonskilled
717	Fabricating Machine Operators, n.e.c.	Nonskilled
719	Molding and Casting Machine Operators	Nonskilled
723	Metal Plating Machine Operators	Nonskilled
724	Heat Treating Equipment Operators	Nonskilled
725	Miscellaneous Metal and Plastic Processing Machine Operators	Nonskilled
726	Wood Lathe, Routing and Planing Machine Operators	Nonskilled
727	Sawing Machine Operators	Nonskilled
728	Shaping and Joining Machine Operators	Nonskilled
729	Nailing and Tacking Machine Operators	Nonskilled
733	Miscellaneous Woodworking Machine Operators	Nonskilled
734	Printing Machine Operators	Nonskilled
735	Photoengravers and Lithographers	Nonskilled
736	Typesetters and Compositors	Nonskilled
737	Miscellaneous Printing Machine Operators	Nonskilled
738	Winding and Twisting Machine Operators	Nonskilled
739	Knitting, Looping, Taping, and Weaving Machine Operators	Nonskilled
743	Textile Cutting Machine Operators	Nonskilled
744	Textile Sewing Machine Operators	Nonskilled
745	Shoe Machine Operators	Nonskilled

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Table A.1: Operationalization of Expertise *(continued)*

SOC	Occupation	Classification
747	Pressing Machine Operators	Nonskilled
748	Laundering and Dry Cleaning Machine Operators	Nonskilled
749	Miscellaneous Textile Machine Operators	Nonskilled
753	Cementing and Gluing Machine Operators	Nonskilled
754	Packaging and Filling Machine Operators	Nonskilled
755	Extruding and Forming Machine Operators	Nonskilled
756	Mixing and Blending Machine Operators	Nonskilled
757	Separating, Filtering, and Clarifying Machine Operators	Nonskilled
758	Compressing and Compacting Machine Operators	Nonskilled
759	Painting and Paint Spraying Machine Operators	Nonskilled
763	Roasting and Baking Machine Operators, Food	Nonskilled
764	Washing, Cleaning, and Pickling Machine Operators	Nonskilled
765	Folding Machine Operators	Nonskilled
766	Furnace, Kiln, and Oven Operators, Except Food	Nonskilled
768	Crushing and Grinding Machine Operators	Nonskilled
769	Slicing and Cutting Machine Operators	Nonskilled
773	Motion Picture Projectionists	Nonskilled
774	Photographic Process Machine Operators	Nonskilled
777	Miscellaneous and Not Specified Machine Operators, n.e.c.	Nonskilled
779	Machine Operators, Not Specified	Nonskilled
783	Welders and Cutters	Nonskilled
784	Solderers and Blazers	Nonskilled
785	Assemblers	Nonskilled

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Table A.1: Operationalization of Expertise *(continued)*

SOC	Occupation	Classification
786	Hand Cutting and Trimming Occupations	Nonskilled
787	Hand Molding, Casting, and Forming Occupations	Nonskilled
789	Hand Painting,Coating, and Decorating Occupations	Nonskilled
793	Hand Engraving and Printing Occupations	Nonskilled
794	Hand Grinding and Polishing Occupations	Nonskilled
795	Miscellaneous Hand Working Occupations	Nonskilled
796	Production Inspectors, Checkers, and Examiners	Nonskilled
797	Production Testers	Nonskilled
798	Production Samplers and Weighers	Nonskilled
799	Graders and Sorters, Except Agricultural	Nonskilled
803	Supervisors, Motor Vehicle Operators	Nonskilled
804	Truck Drivers, Heavy	Nonskilled
805	Truck Drivers, Light	Nonskilled
806	Driver-Sales Workers	Nonskilled
808	Bus Drivers	Nonskilled
809	Taxicab Drivers and Chauffeurs	Nonskilled
813	Parking Lot Attendants	Nonskilled
814	Motor Transportation Occupations, n.e.c.	Nonskilled
823	Railroad Conductors and Yardmasters	Nonskilled
824	Locomotive Operating Occupations	Nonskilled
825	Railroad Brake, Signal, and Switch Operators	Nonskilled
826	Rail Vehicle Operators, n.e.c.	Nonskilled
828	Ship Captains and Mates, Except Fishing Boats	Nonskilled

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Table A.1: Operationalization of Expertise *(continued)*

SOC	Occupation	Classification
829	Sailors and Deckhands	Nonskilled
833	Marine Engineers	Nonskilled
834	Bridge, Lock and Lighthouse Tenders	Nonskilled
843	Supervisors, Material Moving Equipment Operators	Nonskilled
844	Operating Engineers	Nonskilled
845	Longshore Equipment Operators	Nonskilled
848	Hoist and Winch Operators	Nonskilled
849	Crane and Tower Operators	Nonskilled
853	Excavating and Loading Machine Operators	Nonskilled
855	Grader, Dozer, and Scraper Operators	Nonskilled
856	Industrial Truck and Tractor Equipment Operators	Nonskilled
859	Miscellaneous Material Moving Equipment Operators	Nonskilled
863	Supervisors, Handlers, Equipment Cleaners, and Laborers, n.e.c.	Nonskilled
864	Helpers, Mechanics and Repairers	Nonskilled
865	Helpers, Construction Trades	Nonskilled
866	Helpers, Surveyor	Nonskilled
867	Helpers, Extractive Occupations	Nonskilled
869	Construction Laborers	Nonskilled
873	Production Helpers	Nonskilled
875	Garbage Collectors	Nonskilled
876	Stevedores	Nonskilled
877	Stock Handlers and Baggers	Nonskilled
878	Machine Feeders and Offbearers	Nonskilled

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Table A.1: Operationalization of Expertise *(continued)*

SOC	Occupation	Classification
883	Freight, Stock, and Material Handlers, n.e.c.	Nonskilled
885	Garage and Service Station Related Occupations	Nonskilled
887	Vehicle Washers and Equipment Cleaners	Nonskilled
888	Hand Packers and Packagers	Nonskilled
889	Laborers, Except Construction	Nonskilled